



**Focus : Opportunities and**  
**Challenges in a Globalizing**  
**Society**

**11 – 12 July, 2019**  
**at Amari Pattaya Hotel,**  
**Chonburi, Thailand**

## Introduction

The Thailand International College Consortium (TICC) is sponsoring the 4th International Conference – an innovative forum for individual scholars, researchers, and students across the globe to share experiences and exchange views on contemporary issues regarding tourism and hospitality, business management, human resource management, education, and business communication. Following the success of the previous conferences, Burapha University International College (BUUIC) is pleased to announce the Call for Papers for the 4th TICC International Conference titled “Opportunities and Challenges in a Globalizing Society”. This three-day event is co-hosted by Naresuan University International College, Khon Kaen University International College, and Prince of Songkla University Phuket Campus. The 2019 conference will be held from Thursday July 11 to Friday July 12. Saturday July 13 is available if people would like to take individual excursions in the Pattaya area. There are no planned conference excursions, so individuals can talk to the hotel concierge for information about possible tours or events. at the beautiful Amari Pattaya Hotel right on Pattaya Beach in Pattaya, Thailand.

Globalization is a phenomenon that has taken different forms in the past, and it is still emerging in our contemporary world. Globalization is characterized by a high degree of interconnectedness and interaction among people, companies, governmental bodies, and private organizations. The dissemination of information, mobile technologies, scientific knowledge, transportation, communication, and international commerce are all areas of human endeavor influenced by globalization. Globalization can function as a vehicle for advancement by creating opportunities and benefits for some individuals, enterprises, and countries. However, globalization has generated marginalization, impoverishment, and inequality for other individuals, enterprises, and countries. Initially, the term "globalization" was based on the view that “The world's needs and desires have been irrevocably homogenized making the multinational corporation obsolete and the global corporation absolute” (Levitt, 1983). Yet, this idea seems rather simplistic for describing today’s complex and increasingly diverse consequences of globalization. The ultimate goal is to harness the opportunities of globalizing societies by reinforcing best practices, identifying challenges, and mitigating the negative effects for individuals, local communities, and small to medium size businesses.

The TICC International Conference provides a unique opportunity for academics, scholars, researchers, industry stakeholders, local and regional bodies, governmental agencies, and students to gather and create a space for interdisciplinary discussion on ideas, practices, implications, and applications regarding globalization. This conference aims to establish itself as a key event for understanding the threats and risks of globalizing societies by exploring future opportunities in order to put the principles of sustainability into action.

## **Dates/Venue**

**11-12 July, 2019**

The venue for the conference is the beautiful Amari Pattaya Hotel located right on Pattaya Beach. Please note that the Amari Pattaya Hotel was formerly called the Amari Ocean Hotel.

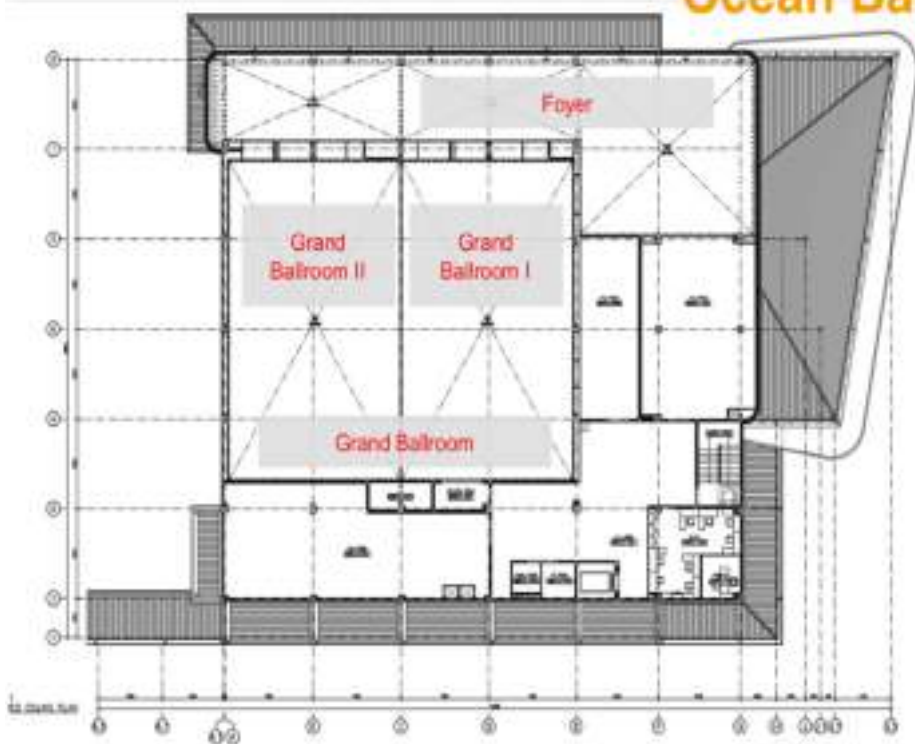


For more information about the venue, please visit the hotel's website: [www.amari.com/pattaya/](http://www.amari.com/pattaya/)  
**Hotel Meeting Facilities**

The TICC conference will use the hotel's beautiful new Grand Ballroom for the Opening Ceremony and for the Welcome Dinner.



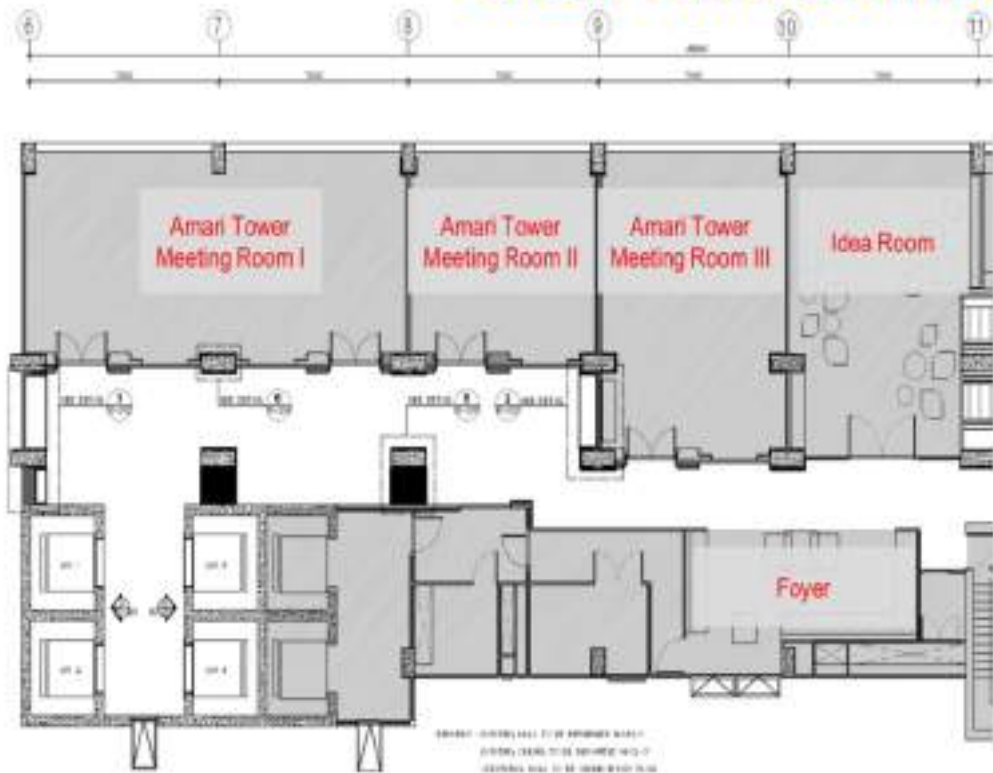
## Ocean Ballroom



The conference will also use the hotel's comfortable meeting rooms for the paper sessions as well as the nearby foyer area for coffee breaks.



## Ocean Tower event rooms



**Conference Theme - (Sub-Themes)**

## **Opportunities and Challenges in a Globalizing Society**

The proposed topics can include but are not limited to the following broad areas:

- Business Management
- Tourism and Hospitality
- Human Resources Management
- Global Communication and Education
- Innovation and Design

## **Organizers**

1. Khon Kaen University International College
2. Faculty of International studies, Prince of Songkla University
3. Naresuan University International College
4. Burapha University International College
5. International College Hatyai Campus, Prince of Songkla University

## **Official website**

<http://ticcic2019.buu.ac.th/index.php>

## **Contacts**

Dr. Parinya Nakpathom, Head of Academic Committee ([ticcic.academic@gmail.com](mailto:ticcic.academic@gmail.com))

Dr. Rungnapha Khamung, Head of Registration Committee ([ticcic.regist@gmail.com](mailto:ticcic.regist@gmail.com))

Mr. Chayanon Chutanon, Head of Transportation Committee ([ticcic.trans@gmail.com](mailto:ticcic.trans@gmail.com))

## **Welcome Speech - President of Burapha University**



Dear ladies and gentlemen, academics and scholars. On behalf of Burapha University, I would like to welcome all of you to the 4th TICC International Conference with a special focus on “Opportunities and Challenges in Globalizing Society”.

In a globalizing society, there is always a lot of interaction and integration among people and among companies from different cultures. And there is significant interaction between governments all over the world. The continually globalizing society has grown into a complex and multifaceted phenomenon due to advances in nearly every discipline, but especially in the area of communication technology. With increased global interactions comes the growth of international business transactions as well as the growth of international social and cultural integration. Growth in these different areas highlights the importance of international research collaboration, including discussions on the different issues that globalizing societies face on a regular basis.

I would like to express my deep gratitude to the Thai International College Consortium whose efforts made this international conference possible. The Thai International College Consortium consists of Khon Kaen University International College; The Faculty of International Studies, Prince of Songkla University, Phuket Campus; Naresuan University International College; Prince of Songkla University International College; and Burapha University International College. I would especially like to thank all authors and participants for joining this event and for their useful research presentations.

Moreover, I would like to thank the organizing committee from Burapha University International College for their enormous contribution in planning and managing this international conference. And I must say I am proud that Burapha University, a leading public university in Eastern Thailand, is willing and able to serve our academic community as the organizer of the 4th TICC International Conference.

I hope that all of you will have opportunities today and tomorrow to develop new relationships that lead to a greater exchange of ideas and knowledge. Finally, I hope all of you will have a wonderful time here in Pattaya Thailand.

A handwritten signature in blue ink, appearing to read 'Somnuk Theerakulpisut', is centered on the page.

Associate Professor Dr. Somnuk Theerakulpisut President of  
Burapha University



## Welcome Speech – Dean of Burapha University International College



On behalf of Burapha University International College (BUUIC) and the TICC International Conference Organizing Committee, I would like to welcome all of you to the 4th TICC International Conference. The theme of this year's conference is "Opportunities and Challenges in a Globalizing Society".

One of our college's most important missions is to be a higher education institution that contributes to the development of business in Asia. Therefore, we are especially pleased to host this conference at the Amari Pattaya Hotel. The conference is well timed because globalization has become a very popular topic – a topic that people all around the globe are interested in. That is because globalizations impacts technology, transportation, media, and international finance. It also impact people because it is easier for goods, services, ideas, and people to cross traditional borders and boundaries. Clearly, globalization offers many benefits to a society, but it also creates challenges. It can provide tremendous opportunity for economic growth, which can improve the quality of life for many people living in the society. It can also lead to challenges regarding the welfare of workers, economic growth, and the environment. These types of challenges arise when businesses globalize and shift their operations from one country to another. The businesses make the shift to take advantage of lower costs of doing business in other regions of the world.

I hope that this conference develops deep friendships that lead to collaborative research, to future initiatives, and to educational networks among economists, development practitioners, policymakers, academicians, researchers, and students from all over the world. I further hope that the presentations and discussions at the 4th TICC conference will serve as a platform for sharing knowledge and experience, ultimately leading to a better understanding of how globalization benefits people in all societies.

I would also like to express my sincere thanks to all the paper peer reviewers and to all members of the conference organizing committee for their precious time and valuable expertise. I really appreciate their contributions to this conference.

Finally, I wish you a fruitful conference and a pleasant stay in Pattaya.

A handwritten signature in blue ink that reads "SUWANNA RASMEQUAN". The letters are cursive and slightly slanted to the right.

Assistant Professor Suwanna Rasmeequan, Ph.D. Acting Dean, Burapha International College Chair of the  
4th TICC International Conference Organizing Committee Chonburi, Thailand

## **Keynotes Speakers**



### **Business Transformation with Blockchain**

**Professor Dr. Dusit Niyato, School of Computer Science and Engineering and, by courtesy**

**School of Physical & Mathematical Sciences, at the Nanyang Technological University  
Singapore**

### **Abstract**

This talk focuses on the business adoption and transformation based on blockchain technology. First, some important features of blockchain are reviewed. Then, the blockchain business and monetization models will be presented. Examples of businesses that leverage the benefits of blockchain are given. Then, the presentation gives business case studies of blockchain in supply chain and payments in which different design approaches of the systems and blockchain adoptions are described and compared. The recommendations and major considerations of using the blockchain technology are also highlighted.

### **Biography**

Dusit Niyato is currently a professor in the School of Computer Science and Engineering and, by courtesy, School of Physical & Mathematical Sciences, at the Nanyang Technological University, Singapore. He received B.E. from King Mongkut's Institute of Technology Ladkrabang (KMITL), Thailand in 1999 and Ph.D. in Electrical and Computer Engineering from the University of Manitoba, Canada in 2008. He has published more than 370 technical papers in the area of wireless and mobile networking, and is an inventor of four US and German patents. He has authored four books including "Game Theory in Wireless and Communication Networks: Theory, Models, and Applications" with Cambridge University Press. He won the Best Young Researcher Award of IEEE Communications Society (ComSoc) Asia Pacific (AP) and The 2011 IEEE Communications Society Fred W. Ellersick Prize Paper Award. Currently, he is serving as a senior editor of IEEE Wireless Communications Letter, an area editor of IEEE Transactions on Wireless Communications (Radio Management and Multiple Access), an area editor of IEEE Communications Surveys and Tutorials

(Network and Service Management and Green Communication), an editor of IEEE Transactions on Communications, an associate editor of IEEE Transactions on Mobile Computing, and IEEE Transactions on Cognitive Communications and Networking. He was a guest editor of IEEE Journal on Selected Areas on Communications. He was a Distinguished Lecturer of the IEEE Communications Society for 2016-2017. He was named the 2017 highly cited researcher in Computer Science. He is a Fellow of IEEE.



### **Technology in Travel Business**

**Professor Dr. Pascal Bouvry ,University of Luxembourg, Luxembourg**

### **Biography**

Professor Dr. Bouvry obtained his Ph.D. degree ('94) in Computer Science with great distinction at the University of Grenoble (INPG), France. His research at the IMAG laboratory focussed on Mapping and scheduling task graphs onto Distributed Memory Parallel Computers. Next, he performed post-doctoral researches on coordination languages and multi-agent evolutionary computing at CWI in Amsterdam. Dr. Bouvry gained industrial experience as manager of the technology consultant team for FICS (belonging to S1 corp) a world leader in electronic financial services. Next, he worked as CEO and CTO of SDC, a Saigon-based joint venture between SPT (the second telecom operator in Vietnam), Spacebel SA (a Belgian leader in Space, GIS and Healthcare), and IOIT, a public research and training center. After that, Dr Bouvry moved to Montreal as VP Production of Lat45 and Development Director for MetaSolv Software, a world-leader in Operation Support Systems for the telecom industry (e.g. AT&T, Worldcom, Bell Canada, etc). Dr. Bouvry is currently professor at the University of Luxembourg, special advisor to the University President in charge regarding High Performance Computing, heading the PCOG (Parallel Computing and Optimization Group), directing the doctoral programme DP-CSCE, and directing the certificate SmartICT for Business innovation. Pascal Bouvry is also Faculty of the Interdisciplinary Center of Security, Reliability and active in various scientific committees and technical workgroups (IEEE CIS Cloud Computing vice-chair, IEEE TCSC GreenIT steering committee, ERCIM WG, ANR, COST TIST, etc.). Prof. Dr.Pascal Bouvry is also member of the editorial boards of IEEE Transactions on Sustainable Computing, IEEE Cloud Computing Magazine, Springer journal on Communications and Sustainable Computing, and Elsevier journal in Swarm and Evolutionary Computation.



## **Technology in Travel Business**

**Mr. Chamreon Visavachaipan , Chief Executive Officer, Jetour (Thailand) Co., Ltd.**

### **Abstract**

In 1960, travel reservations were made by telegraph. In 1970, Telex played a key role in making reservations. Life became easier. In 1980, word processing and Fax machines were used. Things were moving faster. In 1990 the Internet was used, and we did not need to wait around a machine any more. Today, smart phones change the way we do travel business. Thanks to Steve Jobs, now everything is close by our finger tips. How could travel agents adapt to the new way of doing business with the new generation? Not just open a website or platform, we need to understand their behavior, and we need to tailor our product to meet their needs. Old fashion package tours might still be able to hold a small share of the market because there are some people who like to be pampered. But the fact is, the majority of people's daily behavior has changed. Airlines and hotels have gone online, offering economy fares that attract tourists to go FIT rather than take the tradition package tour. However, the old traditional package tour makes Thailand one of the most visited countries in the world. Now, the challenge is how to maintain that top position. It is hard to make it to the top, but it is even harder to stay on top.

### **Biography**

Mr. Chamreon Visavachaipan spent 25 years in United State (1969 – 1994) where he earned a Bachelor's Degree in Electronics Engineering Technology (DeVry University. Chicago, U.S.A. 1973). He was employed in several technical staff positions, and he was a business owner for 10 years prior to returning to Thailand. Currently he is the Chief Executive Officer at Jetour (Thailand) Co., Ltd. – a land operator for inbound tours. He was an official ticket agent for the 2008 Beijing Olympic Games, the 2010 Guangzhou Asian Games, and the 2012 London Olympic Games. Also, he is currently the Chief Executive Officer at e-Discovery Co., Ltd, a computer system integrator. In the past, he held several different types of positions. He was a Sr. Manager in Program Management for Semiconductor Venture International Plc. He worked in Corporate Services for Submicron Technology Plc. where he was responsible for the startup of a state of the art wafer fabrication facility. He also was a business owner: V-Tech Inc. was a company that designed and manufactured POS cash registers for Central Florida Burger King.

## Conference Committees

<b>Name</b>	<b>Positions</b>
Asst. Prof. Dr. Suwanna Rasmeguan	Conference Chair
Dr. Sorrapakksorn Chatrakamollathas	Conference Vice Chair and Finance Committee
Mr. Jimmy Johnson	Planning and Monitoring Committee
Dr. Parinya Nakpathom	Academics Committee
Asst. Prof. Dr.Krittapat Pitchayadejanant	Academics Committee
Dr. Rungnapha Khamung	Registration Committee
Ms. Hataipat Phungpumkaew	Excursion and Guest Liaison Committee
Ms. Kasemsri Ittiphong	Venue Committee
Ms. Chaveeporn Sungwarn	Ceremony Committee
Mr. Kanjanasit Chinnapha	Food and Beverage Committee
Mr. Chayanon Chootanon	Transportation Committee and Public Relations Committee
Ms. Suthasinee Jayankura Na ayudhya	Art and Design Committee

Ms. Waraporn Theerasak

Secretary Committee

### **Steering Committee**

#### **Name**

#### **Positions**

Prof. Dr. La-Orsri Sanoamuang

Dean, Khon Kaen University  
International College (KKUIC)

Dr. Supichaya Meesad

Director of Naresuan University  
International College (NUIC)

Asst. Prof. Dr. Nuwan Thapthiang

Dean, Faculty of International studies,  
Prince of Songkla University,  
Phuket Campus (FIS, PSU Phuket)

Asst. Prof. Dr. Wiphada Wettayaprasit

Director of Prince of Songkla  
University  
International College (PSUIC)

Assist. Prof. Dr. Suwanna Rasmequan

Interim Dean, Burapha University  
International College (BUUIC)

### **TICC Academic Peer Review Committee**

#### **Name**

#### **Positions**

Prof. Dr. Kontis Alexios-Patapios  
Adjunct

Department of Tourism Economics and  
Management, University of the Aegean, Chios,  
Greece

Prof. Dr. Osman Nuri Aras.

Paragon International University, Phnom Penh,  
Cambodia

Prof. Po-Siu Hsu	Oklahoma State University, USA.
Adjunct Prof. Dr. Kontis Alexios-Patapios	Department of Tourism Economics and Management, Chios, Greece
Assoc. Prof. Dr. Elina (Eleni) Michopoulou	Business Management, College of Business, Bruxton, UK
Assoc. Prof. Dr. Ryusuke Kosuge	Graduate School of Management, Osaka, Japan
Assoc. Prof. Dr. Stavrinoudis Theodoros	Department of Tourism Economics and Management, Chios, Greece
Assoc. Prof. Dr. Tang Keow Ngang	Khon Kaen University International College, Thailand
Assoc. Prof. Leslie Susan Cook	Appalachian State University, Boone, North Carolina, USA
Assoc. Prof. Katarzyna Bachnik	Hult International Business School, San Francisco, USA
Assist. Prof. Dr. Anuwat Songsom	Thaksin University, Thailand
Assist. Prof. Dr. Chanchai Phonthanukitithaworn	Mahidol University International College, Thailand
Assist. Prof. Dr. Pim De Jong	Prince of Songkla University, Phuket Campus, Thailand
Assist. Prof. Dr. Pekhanang Yodmanee	Burapha University International College, Thailand
Assist. Prof. Dr. Suwanna Rasmequan	Burapha University International College, Thailand
Dr. Aristedis Gkoumas	Burapha University International College, Thailand



Dr. Athitaya Nitchot	Prince of Songkla University, Phuket Campus, Thailand
Dr. Charlton Thomas Bruton	Burapha University International College, Thailand
Dr. Chuanchen Bi	Khon Kaen University International College, Thailand
Dr. David T. Brown	Department of Geography and Tourism Studies, Brock University, Ontario, Canada
Dr. Eugenia A. Boa	Naresuan University International College, Thailand
Dr. Ioannis Valachis	Tourism Development, Patra, Greece
Dr. Jesper Knijnenburg	Khon Kaen University International College, Thailand
Dr. Kevin Markwell	Southern Cross University, Lismore, Australia
Dr. Kitt Wongarsa	Burapha University International College, Thailand
Dr. Krittapat Pitchayadenant	Burapha University International College, Thailand
Dr. Lee Norris Miller	Burapha University International College, Thailand
Dr. Li Liou-Yuan	Naresuan University International College, Thailand
Dr. Minh Nhat Tran Viet	Burapha University International College, Thailand
Dr. Nikolaos Pappas	International Business School Universiti, Teknologi Malaysia, Kuala Lumpur, Malaysia

Dr. Nor Aiza Binti Mohd Zamil	International Business School Universiti, Teknologi Malaysia, Kuala Lumpur, Malaysia
Dr. Prasitchai Aksonnit	Burapha University International College, Thailand
Dr. Parinya Nakpathom	Burapha University International College, Thailand
Dr. Phan Minh Thang	Burapha University International College, Thailand
Dr. Rungnapha Khamung	Burapha University International College, Thailand
Dr. Santidhorn Pooripakdee	Silpakorn University, Petchaburi Campus, Thailand
Dr. Siwaporn Kunnapapdeelert	Burapha University International College, Thailand
Dr. Sorrapakksorn Chatrakamollthas	Burapha University International College, Thailand
Dr. Supichaya Meesad	Naresuan University International College, Thailand
Dr. Tan Weng Chiang	Burapha University International College, Thailand
Dr. Tanate Parnat	Prince of Songkla University, Phuket Campus, Thailand
Dr. Warunpong Boonsiritomachai	Kasetsart University, Thailand
Dr. Yoshimi Osawa	Research Center for Cultural Resources, National Museum of Ethnology, Osaka, Japan

## Schedules : Conference Program

### PAPER PRESENTATION SCHEDULE (Business Management)

**Venue: AMARI TOWER MEETING ROOM I**

**Thursday, 11 July 2019**

**MODERATOR: Dr. Siwaporn Kunnapadeelert**

**Time: 13.00 – 16.00**

No.	Time	Author (s)	Paper Title	Institution
1	13.00 – 13.20	(1) Pimpika Poolsawat (2) Daraneekorn Supanti	Attitude, Positive Psychological Capital, and Risk Taking Propensity Towards Entrepreneurial Intention	Faculty of Management of Sciences Prince of Songkla University
2	13.20 – 13.40	(1) Sambat Lim (2) Athitaya Nitchot	The Implementation of Multi- Vendor E-Commerce Site in Cambodia (Case Study Prowow Web Application)	Prince of Songkla University International College Prince of Songkla University
3	13.40 – 14.00	Tuangporn Pinudom	Impact of Private Capital Inflows to Economic Growth of Thailand	Burapha University International College
4	14.00 – 14.20	(1) Emeela Wae- Esor (2) Ruangchai Ruanyangmi (3) Nicha Tovankasame (4) Jakraphan Chaopreecha	Determinants of Job Satisfaction: A Proposed Framework	(1, 2, 3) Faculty of International Studies Prince of Songkla University (3) College of Computing Prince of Songkla University
	14.20 – 14.40	Coffee Break		

5	14.40 – 15.00	(1) Siwaporn Kunnapapdeelert (2) Passarin Phalitnonkiat (3) Patidta Nil-Or (4) Kritchanit Churkaew	Investigation of Factors in selecting the Third-Party Logistics Providers for Online Sellers in Chonburi	Burapha University International College
6	15.00 – 15.20	(1) Nathatenee Gebsubut (2) Lakkana Hengboriboon (3) Kachane Akkabutr (4) Sahaparb Sertphol (5) Chaithawat Uttarak (6) Jintana Rattanakhemakorn (7) Kevin P. Jones	Facebook Marketplace: The relationships between the behavioral intentions of buyer and seller in Thailand	Khonkaen University International College
7	15.20 – 15.40	Sudip Debkumar Chatterji	Income trends -Smaller Thai bank Uncertain Pre election period of junta Government	Burapha University International College
8	15.40 – 16.00	Rujee Charupash	Assigning the meaning of the Sufficiency Economy Principles in Personal Financial Planning among a Group of Employees at one of The Sirindhorn Colleges of Public Health	Department of Public Health Sirindhorn College of Public Health Khon Kaen University

### PAPER PRESENTATION (Tourism and Hospitality)

**Venue: AMARI TOWER MEETING ROOM II**  
**MODERATOR: Dr. Parinya Nakpathom**

**Thursday, 11 July 2019**  
**Time: 13.00 – 16.00**

No.	Time	Author (s)	Paper Title	Institution
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1	13.00 – 13.20	(1) Lina Zhong (2) Baolin Deng	Cultural Connotation and Product Mapping of Health Tourism in China	School of tourism Science, Beijing International Studies University
2	13.20 – 13.40	(1) Ardchawin Jaikaew (2) Manop Chum-un (3) Pichaphob Panphae (4) Panida Satayopat	Service Marketing Mixed Strategy of Low-Cost Airline's Domestic Passengers Routes of Passengers In Chiang Mai Province	(1, 2, 4) Business Management Department, Management Science Faculty, Chiang Mai Rajabhat University (3) Business Administration and Liberal Arts Faculty, Rajamangala University of Technology Lanna
3	13.40 – 14.00	(1) Choki Dorji (2) Christopher James Cook (3) Sopit Jenpradab	Bhutan's Road Infrastructure and Its Effect on Tourism and Local Businesses	English for Business Communication Program1 Naresuan University International College
4	14.00 – 14.20	(1) Wenli Lu (2) Xinjian Li	Progress and Prospects of China's Tourism Land Research	School of tourism Science, Beijing International Studies University
	14.20 – 14.40	Coffee Break		
5	14.40 – 15.00	(1) Shanshan Shi (2) Xinjian Li	A Study of the Impact of Online Reviews on the Youth Group's Tourism Consumption Decisions	Beijing International Studies University

6	15.00 – 15.20	He Ke	SWOT Analysis and Countermeasure on the Sustainable Development of Phuket Vegetarian Festival	Faculty of International Studies, Prince of Songkla University, Phuket Campus
7	15.20 – 15.40	(1) Parinya Nakpathom (2) Kanjansit Chinapha (3) Nattapat Rakkijwanittanadee (4) Parichart Veeraphan (5) Kantaphon Akepat (6) Pandara Chajang (7) Gao Li Juan	Sustainable Tourism Perception of local population perception and local population Commitment towards Festival Tourism in Bangsaen City, Thailand	Burapha University International College
8	15.40 – 16.00	(1) Si Zhang (2) Yun Zhang Ling	A Comparative Study of the Development Situation and Trend about Tourism Standardization between China and Thailand	Beijing International Studies University

### **PAPER PRESENTATION (Global Communication and Education)**

**Venue: AMARI TOWER MEETING ROOM I**

**Friday, 12 July 2019**

**MODERATOR: Dr. Charlton Bruton**

**Time: 09.00 – 12.00**

No.	Time	Author (s)	Paper Title	Institution
1	09.00 – 09.20	(1) Riccardo Corrado (2) Patchanee Tungjan	Teachers' Motivation and Quality Education Represent the Key for the Change in Cambodia	(1) Department of Management of Information Systems Paragon International University (2) Department of Occupational Therapy Chiang Mai University

2	09.20 – 09.40	Chartaya Nilplub	The Effect of Source of Information on Student Expectation in Higher Education Service	Faculty of Business Administration Rajamangala University of Technology Isan
3	09.40 – 10.00	Phatsanan Sriaphiphan	A Comparative of Chinese and Thai Language's Measure Words of Animals	Chinese International Program Bangkok University
4	10.00 – 10.20	Minh Nhat Tran Viet	The Effect of Self-Efficacy to Regulate Exercise Factors on University Students' Physical Activities	Burapha University International College
	10.20 – 10.40	Coffee Break		
5	10.40 – 11.00	(1) Anon Klaypha (2) Nantanat Tonboon (3) Chutima Sangwarinta (4) Archanya Sriwantanasin (5) Nisakorn Prakongchati (6) Joel Grisell	Stage Play: Strengthening Students' English Pronunciation	English Program, Faculty of Humanities and Social Sciences Kamphang Phet Rajabhat University
6	11.00 – 11.20	Charlton Bruton	Becoming English Proficient: Developing Joint Intentional Competencies in International Higher Education	Burapha University International College
7	11.20 – 11.40	Thada Wangthammang	Enhancing the Student Performance Using Pair Programming in HTML Floating Layout Lesson	Digital Media Program, Prince of Songkla University International College

8	11.40 – 12.00	(1) Apitchaya Puapan (2) Nuannut Khieowan	The Educational Opportunities and Difficulties of Migrant Children in Thailand: A Case Study of Migrant Children from Myanmar in Koh Siray, Phuket	Faculty of International Studies, Prince of Songkla University, Phuket Campus
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**PAPER PRESENTATION (Business Management and Interdisciplinary)**

**Venue: AMARI TOWER MEETING ROOM II**

**Friday, 12 July 2019**

**MODERATOR: Assistant Prof. Dr. Krittipat Pitchayadejanant Time: 09.00 – 12.00**

No.	Time	Author (s)	Paper Title	Institution
1	09.00 – 09.20	Fei Lu	China's Agricultural Development and Transformation Under the Restriction of Resources and Environment	Burapha University International College
2	09.20 – 09.40	(1) Chavis Ketkaew (2) Martine Van Wouwe (3) Preecha Vichitthammaros	How Financial Planning Behavior Influences Personal Financial Goals: A Comparative Study Between Entrepreneurs and Wage Employees in Thailand	Khonkaen University International College
3	09.40 – 10.00	(1) Thananya Chimnon (2) Sarunya Tarat (3) Pirakorn Seekhem	Accommodation Factors that Enhance NU Students Studying as Seen in Their GPA Results	English for Business Communication Program Naresuan University International College
4	10.00 – 10.20	(1) Passarin Phalitnonkiat (2) Phimonsiri Puthong	Employee's Perception toward Developing Sustainable Procurement in Oil and Gas Industry	Burapha University International College
	10.20 – 10.40	Coffee Break		
5	10.40 – 11.00	Lee Miller	Internal Locus of Control: Can There Be Too Much of a Good Thing?	Burapha University International College

6	11.00 – 11.20	David T Brown	More Digital Discoveries and Electronic Explorations: A Locative Media Platform for Heritage Interpretation in the Field	Department of Geography and Tourism Studies, Brock University
7	11.20 – 11.40	(1) Krittipat Pitchayadejanant (2) Sirintra Klingklai (3) Phatcharaphong Sanpimai	Environmental Friendly and Non-Environmental Friendly Determinants of Third Party Logistics Providers Affecting to Customers' Satisfaction and Customers' Loyalty	Burapha University International College
8	11.40 – 12.00	Dimitrije Curcic	Observational Drawing Development in Anatomy for Animation Classes	Prince of Songkla University International College

**PAPER PRESENTATION (Tourism and Hospitality)**

**Venue: AMARI TOWER MEETING ROOM I**

**Friday, 12 July 2019**

**MODERATOR: Dr. Rungnapha Khamung**

**Time: 13.00 – 16.00**

No.	Time	Author (s)	Paper Title	Institution
1	13.00 – 13.20	(1) Jakraphan Chaopreecha (2) Nicha Tovankasame (3) Emeela Wae- Esor (4) Pim de Jong	Conceptualizing Authenticity through A Case of Spatializing Culture in Thalang Road, Old Phuket Town	(1) College of Computing Prince of Songkla University (2) Faculty of International Studies Prince of Songkla University
2	13.20 – 13.40	(1) Xin Wang (2) Guoquan Wang	Time and space characteristics of Thailand's tourism network attention and its coupling with tourism safety	College of Tourism Science, Beijing International Studies University
3	13.40 – 14.00	(1) Nathatenee Gebsoambut (2) Lakkana Hengboriboon (3) Sopolnawitch A. Ponglamjiak (4) Nishapan Intarapanich (5) Proychai Klakayan (6) Thapanee Jirachottanyarat (7) Nuttaporn Limnirunkul (8) Preeyawan Techapanitsakul	Understanding Tourism-related Instagram hashtag utilization behavior	Khonkaen University International College
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# **Attitude, Positive Psychological Capital, and Risk Taking Propensity Towards Entrepreneurial Intention**

**Pimpika Poolsawat<sup>1</sup> and Daraneekorn Supanti<sup>2</sup>**

**Faculty of Management of Sciences <sup>1</sup>**

**Prince of Songkla University**

**Songkla 90110, Thailand**

**Email: ppk.psw@hotmail.com**

**Faculty of Management of Sciences <sup>2</sup>**

**Prince of Songkla University**

**Songkla 90110, Thailand**

**Email: daraneekorn.s@psu.ac.th**

## **Abstract**

The aim of this article is to investigate factors influencing entrepreneurial intention. The conceptual framework is based on the theory of planned behavior and personality entrepreneurship. Data were analyzed using 203 business administration students from a college and a university in Phuket. Results from multiple regression analysis revealed that attitude towards entrepreneurship was very important factor to explain entrepreneurial intention, followed by positive psychology capital. However, risk taking propensity had no significant influence on entrepreneurial intention. This model can be employed as a guideline for educational institutions in designing effective business courses or training programs that focus on the development of students' attitudes and their positive psychology.

**Keywords:** Attitude, positive psychological capital, risk taking propensity, entrepreneurship intention

## **1. Introduction**

Entrepreneurship has received an increased attention from academics and government sectors in recent years. That is, increasing in the number of entrepreneurs is considered as an economic growth (Wennekers & Thurik, 1999), which can be seen in term of Global Entrepreneurship Index (GEI) (Aparicio, Urbano, & Audretsch, 2016). Especially in developing countries, the consequences of increasing entrepreneurs lead to an increase in standards of living and well-being as well as a decrease in poverty (Naudé, 2010). The components of GEI, an indicator of a country's economic development index have considered ranging from attitude towards entrepreneurship, ability to be an entrepreneur, and the intention to be an entrepreneur (Acs, Estrin, Mickiewicz, & Szerb, 2018). Accordingly, entrepreneurial intention has been considered as the best predictor of entrepreneurial behavior in the psychological literature (Krueger, Reilly, & Carsrud, 2000). Therefore, this study focuses on entrepreneurial intention.

Entrepreneurial intention refers to an individual's effort and determination to have entrepreneurial behavior (Thompson, 2009). A person who intent to start doing business can be considered as having a desire to be self-employed, planning in order to run the business, and having an interest in establishing a business to be a business owner in the future. In addition, attitude towards entrepreneurship (Soomro & Shah, 2015) and psychological factor (Appolloni & Gaddam, 2009) have been found to be important factors influencing entrepreneurial intention. While many recent studies investigating in Thai context, the researcher was studied in TPB (Pratitas, 2017; Yotongyos & Sukmaungma, 2016) that psychological factors have been found a small group of researchers' interest (Tripopsakul, & Pichyangkul, 2018). Considering the gap of research conducting in Thai context, this study aims to investigate factors influencing entrepreneurial intention using of students who will graduate in business administration degree and advanced diploma certificate. This research focuses on factors influencing entrepreneurial intention in Phuket where is the highest of new venture in the southern of Thailand in 2018 (Department of Business Development, 2018). The information obtained from the study is anticipated to offer a strategic plan for the government units in providing support for new entrepreneurs, thus benefiting the overall economy of the country.

## **2. Research Objectives**

The purpose of this research was to investigate attitude towards entrepreneurship, positive psychological capital and risk taking propensity effect on entrepreneurial intention.

## **3. Literature Review**

### **3.1 Theoretical background**

The aim of this paper is to investigate factors influencing entrepreneurial intention. According to theory of planned behavior (TPB), this theory postulates that intentions are likely to influence behavior (Ajzen, 1991). This study applies TPB for two reasons. First, research relating to the intention to be an entrepreneur of university students using TPB as the underpinning theory confirms that intention can predict entrepreneurial behavior (Gird & Bagraim, 2008; Kim-Soon, Abd Rahman, & Nurul Nadia, 2016). Many empirical findings provide support that intention leads to behavior (Schlaegel & Koenig, 2014). Second, intention can be influenced by attitude towards the behavior, subjective norms, and perceived behavior control. Most studies using TPB found attitudes towards entrepreneurship to be most important factor (Iakovleva, Kolvereid, & Stephan, 2011; Wu & Wu, 2008), following by subjective norms (Kautonen, van Gelderen, & Fink, 2015; Mueller, 2011), and perceived behavioral control (Alexander & Honig, 2016; Chowdhury, Shamsudin, & Ismail, 2012). Thus, attitude towards entrepreneurship is the focus in this study. In support, the effect on intention that can be influenced by attitudes and personality (Krueger et al., 2000).

Further, personal attributes have been used to predict behavior (Ajzen, 2005), which can be developed to have a positive influence on behavior (Luthan and Youssef-Morgan, 2017). For the personality of the entrepreneur, Chell (2008) and Krueger (2003) describe an individual's personality to starts the business and to be successful entrepreneurs consisting of optimism, decision to conduct the entrepreneurial activity, and resilience personality. In a similar vein, Luthan, Avolio, Avey, and Norman (2007) introduced recent concept of the positive psychological capital, referring to and consisting of a state-like personality that can change and

develop different from the trait-like that is difficult to change optimistic, resilience, hope, and self-efficacy. The results showed that positive psychological capital is positively correlated and had influence on the willingness to be entrepreneur. Specifically, researchers have recently support that positive psychological factors influencing entrepreneurial intentions of university students (Contreras, Dreu, & Espinosa, 2017) and young start-up entrepreneurs (Jin, 2017). While recent work on psychological capital and entrepreneurial intention is of interest (Luthan & Youssef-Morgan, 2017; Yousaf, Hanafiah, & Usman, 2015), this study examines the influence of psychological capital on entrepreneurial intention.

Furthermore, the study of entrepreneurial intentions also considers that the entrepreneurial orientation have an important influence on the new entrepreneurs (Altinay, Madanoglu, Daniele, & Lashley, 2012). Risk taking propensity is an important factor in the characteristics of entrepreneurs (Bolton & Lane, 2012; Luthje & Franke, 2003). This is because entrepreneurship is a profession that encounter the situation is uncertainty in terms of work processes as well as a risk in return (Baron, 1998). Risk taking propensity is important personality as many researchers found that the risk taking propensity can influence entrepreneurial intention (Sánchez, 2011; Singh, Verma, & Rao, 2017). As Krueger (2003) indicated that personality for risk taking propensity should be studied because being an entrepreneur, this study examines the influence of risk taking propensity on entrepreneurial intention.

### 3.2. Research hypotheses

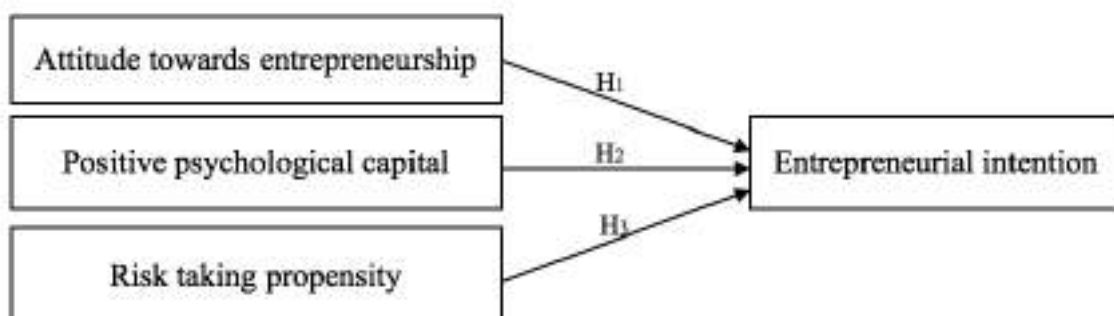
Following the literature reviews above, this research using the theory of planned behavior as a framework for study of attitudes towards entrepreneurship, together with the personality literature consisting of the variables: risk taking propensity and positive psychology capital. A set of hypotheses (H1, H2, and H3) is proposed to address research objectives, see Figure 1.

**Hypothesis 1: Attitude towards entrepreneurship positively influences entrepreneurial intention**

**Hypothesis 2: Positive psychological capital positively influences entrepreneurial intention**

**Hypothesis 3: Risk taking propensity positively influences entrepreneurial intention**

**Figure 1. Research framework**





#### 4. Research Methodology

The samples used in this study were students who were studying business administration at a university and advanced diploma at a vocational college in Phuket, Thailand. There are 115 students from the university and 88 students from the vocational college. Two hundreds and ninety questionnaires were distributed during October, 2018. Two hundreds and three valid responses were used for analysing data, accounting for 70 percent. The measures used in the survey were adopted from previous studies. The measure of attitude towards entrepreneurship adopted from Linan and Chen (2009), positive psychological capital of Luthan et al. (2007), risk taking propensity by Bolton and Lane (2012). The questionnaires was validated the content by using item-objective congruence (IOC). All items of IOC was above 0.5 (range 0.8-1.0) and reliability with Cronbach' alpha more than 0.70 ( $\alpha = 0.947$ ). Multiple regression analysis were conducted to examine hypothesis. The data was analyzed using SPSS version 21.0.

#### 5. Results

The demographic profile of respondents showed that 72.4% were female and average age of 21 years old. There are 56.7% of respondents from the university and 43.3% from the vocational college. The independent t-test sample of data revealed that the mean scores for both groups of respondents were no significantly different. Accordingly, data from both groups of respondent are combined.

**Table 1**  
**Correlations, Means and Standard Deviation**

	Mean	S.D.	1	2	3	4
	s					
<b>1. Entrepreneurial intention</b>	<b>6.005</b>	<b>0.766</b>	<b>1</b>			
<b>2. Attitude towards entrepreneurship</b>	<b>5.757</b>	<b>0.727</b>	<b>0.676**</b>	<b>1</b>		
<b>3. Risk taking propensity</b>	<b>3.827</b>	<b>0.601</b>	<b>0.436**</b>	<b>0.545**</b>	<b>1</b>	
<b>4. Positive psychology capital</b>	<b>4.772</b>	<b>0.565</b>	<b>0.645**</b>	<b>0.658**</b>	<b>0.525**</b>	<b>1</b>

**\*\*p < 0.01.**

**Results in Table 1 indicate that attitude towards entrepreneurship ( $r = 0.676$ ,  $p < 0.01$ ), positive psychology capital ( $r = 0.645$ ,  $p < 0.01$ ), and risk taking propensity ( $r = 0.436$ ,  $p < 0.01$ ) have positive relationships with entrepreneurial intention, respectively. All correlation matrix have less than 0.7, indicating no multicollinearity (Dormann et al., 2013). As can be seen in Table 2, the tolerance level above 0.10 and the variance inflation factor (VIF) less than 10 are considered as no multicollinearity.**

**Table 2**

### Multicollinearity analysis

Variable	Tolerance	VIF
Attitude towards entrepreneurship	0.512	1.951
Risk taking propensity	0.654	1.529
Positive psychology capital	0.528	1.893

The data is sufficient for applying multiple regression analysis, see Table 3. It was found that the good model was based on the results of F-Statistic about 74.274 ( $p < 0.001$ ). Results reveal that all independent variables explained entrepreneurial intention accounted for 52.8 percent ( $R^2 = 0.528$ ). Attitude towards entrepreneurship ( $\beta = 0.440$ ,  $p < 0.01$ ) and psychological variable capital ( $\beta = 0.349$ ,  $p < 0.001$ ) have significantly and positively influences on intention. However, risk taking propensity has no significant influence on intention ( $\beta = 0.013$ ,  $p > 0.05$ ). Therefore, results provide support for H1 and H2, and reject H3.

**Table 3**  
**Results of hypothesis testing**

Hypothesis	B	SEb	$\beta$	<i>t</i>	<i>p</i> value
Constant	1.013	.342	-	2.960	0.003
Attitude towards entrepreneurship	0.464	0.072	0.440	6.467	0.000
Risk taking propensity	0.017	0.077	0.013	0.220	0.836
Positive psychology capital	0.473	0.09	0.349	5.207	0.000

**Note:  $R^2 = 0.528$ , Adjusted R Square = 0.521, F-statistic = 74.274, Sig = .000**

### 6. Discussion and Conclusion

This study investigated factors influencing entrepreneurial intention. Findings indicated that attitude towards entrepreneurship and positive psychological capital have significant influences on intention to be an entrepreneur. The result is consistent with Iakovleva et al. (2011) which revealed that attitude mostly influenced on entrepreneurial intention of students in developing countries. This finding provides support that the motivation of young age to start an enterprise is driven by their attitude towards entrepreneurship (Malebana, 2014). Similar findings were indicated by Yousaf et al. (2015) that positive psychological as an important factor for increasing

entrepreneurs' intention. While the insignificant relationship between risk taking propensity and entrepreneurial intention was revealed in this study, Koe (2016) found similar results. That is, risk taking ability had no significant impact on intention of being an entrepreneur. Accordingly, the results of this research can be described the high impact of attitude towards entrepreneurship and positive psychological capital to predict intention to be an entrepreneur. The findings support the hypothesis that attitude towards entrepreneurship and positive psychological capital positively influence entrepreneurial intention. Although this research has shown that low risk taking propensity efficacy would prevent person decision operate entrepreneur activities but the review of related literature found that can be influenced to be entrepreneurship. This was probably because students were defected ability to take risk that essential personality towards entrepreneurship.

The results can be concluded that attitude towards entrepreneurship and positive psychological capital are important factor in predicting intention of being an entrepreneur. In line with TPB, several studies confirmed that attitude has a strong influence on intention to be an entrepreneur (Mwiya, Wang, Shikaputo, Kaulungombe, Kayekesi, 2017). Based on the personality theory, the entrepreneur can be taken more risk than other career. From the research findings, the information contributed for the section of government promote new entrepreneurs to enhance attitude and personality of entrepreneurship as hope, self-efficacy, resilience, optimism, risk taking propensity. The policymaker can take this information to design courses of entrepreneurship education in colleges and universities. The business program may improve curriculum that focused on practice entrepreneurship activities along with the theory or training programs that develop student's entrepreneurship identity through risk taking's activities. Accordingly, both attitude towards entrepreneur and positive psychological capital are important internal driving factors for students to become entrepreneurs. In the future research, the qualitative method investigate to explain how the internal and external factor influence to decision the entrepreneurship.

## 8. References

- Acs, Z. J., Estrin, S., Mickiewicz, T., & Szerb, L. (2018). Entrepreneurship, institutional economics, and economic growth: an ecosystem perspective. *Small Business Economics*, 51(2), 501-514.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Ajzen, I. (2005). *Attitudes, personality, and behavior*. McGraw-Hill Education (UK).
- Alexander, I. K., & Honig, B. (2016). Entrepreneurial intentions: A cultural perspective. *Africa Journal of Management*, 2(3), 235-257.
- Altınay, L., Madanoğlu, M., Daniele, R., & Lashley, C. (2012). The influence of family tradition and psychological traits on entrepreneurial intention. *International Journal of Hospitality Management*, 31(2), 489-499.
- Aparicio, S., Urbano, D., & Audretsch, D. (2016). Institutional factors, opportunity entrepreneurship and economic growth: Panel data evidence. *Technological Forecasting and Social Change*, 102, 45-61.
- Appolloni, A., & Gaddam, S. (2009). Identifying the effect of psychological variables on entrepreneurial intentions. *DSM Business Review*, 1(2), 61-86.
- Baron, R. A. (1998). Cognitive mechanisms in entrepreneurship: Why and when

- entrepreneurs think differently than other people. *Journal of Business venturing*, 13(4), 275-294.
- Bolton, D., & Lane, M. D. (2012). Individual entrepreneurial orientation: development of a measurement instrument. *Education + Training*, 54(2/3), 219–233.
- Chell, E. (2008). *The entrepreneurial personality: A social construction*. New York: Routledge.
- Chowdhury, M. S., Shamsudin, F. M., & Ismail, H. C. (2012). Exploring potential women entrepreneurs among international women students: The effects of the theory of planned behavior on their intention. *World Applied Sciences Journal*, 17(5), 651–657.
- Contreras, F., de Dreu, I., & Espinosa, J. C. (2017). Examining the relationship between psychological capital and entrepreneurial intention: an exploratory study. *Asian Social Science*, 13(3), 80-88.
- Department of Business Development. (2018). *Data statistic*. Retrieved from [https://www.dbd.go.th/download/document\\_file/Stastic/2561/Regional/Southern.pdf](https://www.dbd.go.th/download/document_file/Stastic/2561/Regional/Southern.pdf)
- Dormann, C. F., Elith, J., Bacher, S., Buchmann, C., Carl, G., Carré, G., ... & Münkemüller, T. (2013). Collinearity: a review of methods to deal with it and a simulation study evaluating their performance. *Ecography*, 36(1), 27-46.
- Gird, A., & Bagraim, J. J. (2008). The theory of planned behaviour as predictor of entrepreneurial intent amongst final-year university students. *South African Journal of Psychology*, 38(4), 711-724.
- Iakovleva, T., Kolvereid, L., & Stephan, U. (2011). Entrepreneurial intentions in developing and developed countries. *Education+ Training*, 53(5), 353-370.
- Jin, C. H. (2017). The effect of psychological capital on start-up intention among young start-up entrepreneurs: A cross-cultural comparison. *Chinese Management Studies*, 11(4), 707-729.
- Kautonen, T., van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship: Theory and Practice*, 39(3), 655–674.
- Kim-Soon, N., Ahmad, A. R., & Ibrahim, N. N. (2016). Theory of planned behavior: undergraduates' entrepreneurial motivation and entrepreneurship career intention at a public university. *Journal of Entrepreneurship: Research & Practice*, 1-14.
- Koe, W. L. (2016). The relationship between Individual Entrepreneurial Orientation (IEO) and entrepreneurial intention. *Journal of Global Entrepreneurship Research*, 6(1), 1-11.
- Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing*, 15(5-6), 411-432.
- Krueger, N. F. (2003). The cognitive psychology of entrepreneurship. In *Handbook of entrepreneurship research* (pp. 105-140). Springer, Boston, MA.
- Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice*, 33(3), 593-617.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel psychology*, 60(3), 541-572.
- Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based

- positive approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 4, 339-366.
- Lüthje, C., & Franke, N. (2003). The 'making' of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&D Management*, 33(2), 135-147.
- Malebana, M. J. (2014). Entrepreneurial intentions and entrepreneurial motivation of South African rural university students. *Journal of Economics and Behavioral Studies*, 6(9), 709-726.
- Mueller, S. (2011). Increasing entrepreneurial intention: effective entrepreneurship course characteristics. *International Journal of Entrepreneurship and Small Business*, 13(1), 55-74.
- Mwiya, B., Wang, Y., Shikaputo, C., Kaulung'ombe, B., & Kayekesi, M. (2017). Predicting the entrepreneurial intentions of university students: Applying the theory of planned behaviour in Zambia, Africa. *Open Journal of Business and Management*, 5, 592-610.
- Naudé, W. (2010). Entrepreneurship, developing countries, and development economics: new approaches and insights. *Small business economics*, 34(1), 1-12.
- Pratitas, P. (2017). Impact of cognitive biases, risk perception, and obstacles perception to creative entrepreneur intention of the vocational students in Bangkok metropolitan. *Panyapiwat Journal*, 9, 171-181.
- Sánchez, J. C. (2011). University training for entrepreneurial competencies: Its impact on intention of venture creation. *International Entrepreneurship and Management Journal*, 7(2), 239-254.
- Schlaegel, C., & Koenig, M. (2014). Determinants of entrepreneurial intent: A meta-analytic test and integration of competing models. *Entrepreneurship: Theory and Practice*, 38(2), 291-332.
- Singh, B., Verma, P., & Rao, M. K. (2017). Influence of individual and socio-cultural factors on entrepreneurial intention. In *Entrepreneurship Education* (pp. 149-169). Springer, Singapore.
- Soomro, B. A., & Shah, N. (2015). Developing attitudes and intentions among potential entrepreneurs. *Journal of Enterprise Information Management*, 28(2), 304-322.
- Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, 33(3), 669-694.
- Tripopsakul, S., & Pichyangkul, C. (2018). Factors influencing youth entrepreneurs in Thailand. *Nida Business Journal*, 22, 44-60.
- Wennekers, S., & Thurik, R. (1999). Linking entrepreneurship and economic growth. *Small Business Economics*, 13, 27-55.
- Wu, S., & Wu, L. (2008). The impact of higher education on entrepreneurial intentions of university students in China. *Journal of Small Business and Enterprise Development*, 15(4), 752-774.
- Yotongyos, M., & Sukmaungma, S. (2016). Factors affecting entrepreneurial intention of undergraduate students: A case study of Bangkok university. *Suthiparithat Journal*, 30(95), 103-115.
- Yousaf, S. U., Hanafiah, M. H., & Usman, B. (2015). Psychological capital: Key to

entrepreneurial performance and growth Intentions. *International Research Journal of Social Sciences*, 4(9), 39-45.

# **The implementation of multi-vendor E-commerce site in Cambodia (case study Prowow web application)**

**Sambat Lim<sup>1</sup> and Athitaya Nitchot<sup>2</sup>**

Digital Media Program<sup>1,2</sup>  
Prince of Songkla University International College  
Prince of Songkla University  
Songkhla 90110, Thailand  
Email: sambatlim.l@gmail.com<sup>1</sup>  
Email: athitaya.nitchot@gmail.com<sup>2</sup>

## **Abstract**

Cambodia is developing country and online business is starting to impact on the business. Some big stores or shops start focusing on online platform as the tool to display and promote their product to customers. Simultaneously, the amount of traditional business is still noticeable if we compare with online business. Prowow web application is the multi-vendor e-commerce site which has some features that could apply to the Cambodia's scenario such as: report product, proof of payment, and verification code on delivery. The objective of this research is to find that the simplicity of the website, and trust-worthiness of the site could convince Cambodian buyer and seller decide to use the website in order to buy and sell. To achieve the objectives of the study, questionnaire was made to collect data after user used the site.

**Keywords:** e-Commerce; Cambodia e-Commerce; Proof of payment; Bidding; Web Application

## **1. Introduction**

The researcher conducted the survey of 35 Cambodian people on social media and the survey reports that there are 31 people who have spent their time more time 5 hours per day using internet. 7 out of 35 who have never buy any products online. There are some reasons that cause them not to make the purchase such as: They want to see the real product with their eye, and they don't trust the online shop. The reasons of not making the purchase online of them is quite general but what could cause them to make the purchase online is still the question of most of the online shop (Jinarat, V, 2009).

Prowow web application was utilized to test the hypotheses: simplicity and trustworthy of the web application could motivate buyer to make the purchase and seller to sell in the site. To maintain the simplicity and trustworthy of the web application Prowow web application has the features such as: proof of payment which enable the buyer to send the receipt to seller to verify their payment. Reporting product, verification code on delivery, and forward auction (bidding) feature were applied to the website. Reporting product is the feature that enable user to report any abuse activity of the product to admin. Verification code on delivery is the code that is given to the buyer after they made the order in the website by the system. This code is used to verify with the postman. This action help ensure that buyer got the product that he/she ordered.

The result of this research could provide the information or idea to the next start up in this field which is trying to implement the e-commerce in Cambodia. From the survey result, there are 31 out of 35 people have spent their time more than 5 hours per day on internet, so to make thing that have internet involve might be the next business model.

E-commerce could be the business of the future in Cambodia because right now the internet usage in Cambodia is cheap, can be used everywhere in the country, and everyone know how to use the internet.

At the end of this paper, we will present the prototype design including the system evaluation covering for both general users and seller. We will also represent the discussion and future works of this study.

## **2. Research Objectives**

The objective of this research is to find that the simplicity of the website, and trustworthiness of the site could motivate Cambodian buyer and seller decide to use the website in order to buy and sell. Each objective can be described as the following points:

- To make the clear and easy to use without complicated learning curve order and product management
- To apply the QR code in order to make the deliver process more truth worthy and convenient
- To implement the proof of payment concept in web application without third party service involve in order to make the site more convenient
- To enable the user to report product in the website

## **3. Literature Review**

This section consists of the similarity and differences of the existed e-commerce web application in Cambodia and Thailand. This section will focus on function, design, and user experience of the existed web application compare to the web application that is being made for this research. Khmer24.com (Khmer24.com, 2019) is the e-commerce site in Cambodia. This site is the C2C (customer to customer) e-commerce. This website is the platform that every user can public the product to sale. Seller provide contact number to those who are interesting in the product to contact to seller. This website is leading ecommerce website in Cambodia. However, this website doesn'tt have bidding system, order management and product management even though It is the same e-commerce site as Prowow. User cannot buy, and tracking their order directly from the site. The most common purchasing is face-to-face purchasing.

Mypshar.com (Myphsar.com, 2019) is the e-commerce site in Cambodia. This site is the mix of C2C (customer to customer) and B2C (business to customer) e-commerce. This ecommerce website is a multi-vendor ecommerce in Cambodia. Everyone is allowed to add the product to sale in the website. Bidding feature is not existing in this website. There are many ways to purchase in this website. They are face-to-face purchase, call to purchase, and e-payment for official store only. Next system is jib.co.th (Jib Computer Group, 2019). JIB is the IT shop in Thailand. JIB sale IT products such as: Gaming laptop, Gaming PC custom build, Gaming gear, and other accessories. JIB has many payment methods which make this IT shop stands out from the others in Thailand. And one payment method that could apply in Cambodia is proof of payment- pay by sending the receipt to shop because in Cambodia people generally use the third party service to send money from person



to another person. The table above will explain about how Prowow could relate to JIB and adapt the payment method to Prowow website.

In the conclusion, after reviewing the recently leading e-commerce sites in Cambodia Khmer24, and Mypshar and Thailand e-commerce shop JIB, we have found the strengths and weakness of each of those. The below table (Table 1) will describe about the strength and weakness of every website:

Table 1: Reviewed eCommerce System Compariosn

Websites	Strengths	Weaknesses
Khmer24	<ul style="list-style-type: none"> <li>· Everyone can be the seller could make the site more popular and get more traffic.</li> <li>· There are many categories in the site that is good for people to find their products their looking for.</li> </ul>	<ul style="list-style-type: none"> <li>· Most of product cannot buy directly using the site. In order to buy users, need to make the contact to shop or individual seller.</li> <li>· Causing the misunderstanding between buyer with individual seller because some product might out of stock before the buyer contact to the individual seller - no stock management.</li> <li>· Cannot make the loyalty to the shop.</li> </ul>
Mypshar	<ul style="list-style-type: none"> <li>· Having the official shop could bring more truth-worthy to site.</li> <li>· Offer various kind of payment except proof of payment by sending the receipt to user.</li> <li>· Good layout of product display</li> </ul>	<ul style="list-style-type: none"> <li>· This site offers various payment method however most the shop in the site are still using contact to buy method in the site.</li> <li>· No order management and stock management</li> <li>· No proof of payment by sending the receipt to user payment method.</li> </ul>
JIB	<ul style="list-style-type: none"> <li>· The best to find the reasonable IT product</li> <li>· A lot of payment method</li> <li>· Provide the order status which make buyer feel good after making submit the receipt to the shop</li> </ul>	<ul style="list-style-type: none"> <li>· This shop is made purposely focusing on IT product and to support the JIB shop only</li> </ul>

As shown in table 1, there are strength and weakness of the existed web application in Cambodia which was summarized from feedback of Cambodian users. This showing that trustworthy and simplicity of the website could motivate buyer to buy and seller to sell in the website.

To support the agreement of using ICT in Cambia. Hutchinson, K., & Molla (2009) A also supported the idea of using ICT in developing Cambodia social and life. They claimed that Information and

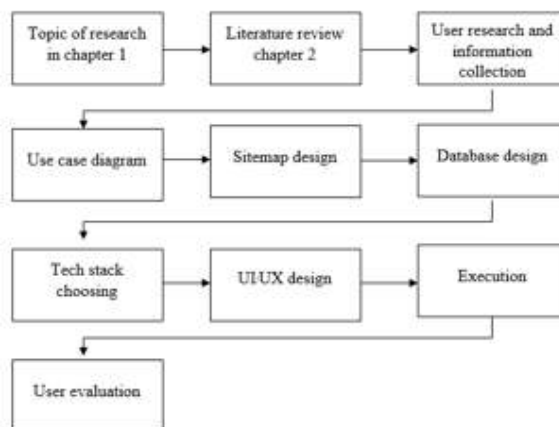
Communication Technology (ICT) and social enterprises become drivers of economic growth, the nexus provides opportunities for new models of business to bring benefits to communities in developing countries.

#### 4. Research Methodology

Questionnaire was used to collect the data from the Cambodian user. The questionnaire was divided in to two parts: buyer part and seller part. Prowow web application is made as the prototype for user to test. Prowow web application was created base on the objectives as state in section 2.

Prowow web application is planned as the chart below before moving to the making process (Figure 1).

Figure 1: System Development Process (Prowow Case Study)



#### 4.1. Gathering Requirement and Analysis

Researcher used Google Form service as the online survey form, and used social media as the medium to spread this form to target group. In this form there are 4 sections. There is the section for people who have bought online, sold online bought and sold online, and never bought and sold. And the questionnaire and conclusion of the result are follows. For people who bought online: they mostly buy electronic device and clothes, by checking the product on Facebook and contact the seller, and also using amazon, they bought online because it is convenient. For people who have bought and sold online: They mostly focus on electronic device and clothes, they sold on Facebook, because it is convenient. For people who never bought online: Because they want to see the real product from their eyes, they think they may buy online in the future, and they not trust the site. In addition, based on the result of survey, we are able to conclude three important points that could apply to the project.

- People are used to making the purchase online.
- The popular category amounts them are Technology, cosmetic, and life style products.
- Website need to be truth-worthy before they decide to purchase in the site.

#### 4.2 Use case explanation

Use case explanation is explanation that explain the case of use of each user (Shen, W., & Liu, S, 2003). There are 4 kinds of user in this web application. They are not login user, logged in user, shop owner, and admin. Every kind of user also has some use case in common such as: login, signup, view product page, view home page, view store home page, report product, search product, view product by category.

#### **Use case of Non-logged in user**

Non-logged in user is able to view product, report, and login or signup. Non-logged in user is not allowed to buy the product because the information of the user is not existing in the database. In order to buy the product non-logged in user is required to login or signup. Non-logged in user is not able to register as to be the seller.

#### **Use case of logged in user**

Logged in user is able to buy product, add product to wish list, and also check status of their order. Logged in user is able to register as the seller. When logged in user already register, the information will send to admin in order to accept or reject the request during that process logged in user is not able to make another register as the seller. Logged in user is able to upload receipt in order to proof their payment with the seller. Logged in user is able to place bid on the bidding product. Logged in user is able to track their order when checking on the order status.

#### **Use case of shop owner or seller**

Seller or shop owner is the logged in user which their shop registration are accepted by the admin. Shop owner is able to upload product to sale in the website. There are two main kinds of the product in Prowow web application such as: bidding product and normal product. Shop owner is able to set the start price of the product, price between each bid, and the expire day of the payment on the bidding product. Shop owner is provided the full control over the order management such as: to accept the waiting to verify payment product, product to deliver, product delivering, and the delivered product. Shop owner is able to manage their product management such as: manage product in stock, manage product out of stock and manage the bidding product. Shop owner is able to restock the products that out of stock and update the bidding product after bid ended.

#### **Use case of admin**

Admin is the main user of the web application. Admin control over the shop owner. Admin is able to accept or reject the shop request. Admin is able to see all the report statement of user over product. Admin will consider to banned that product or not base on the real situation and admin will contact the store before banning of each product. This action will help to ensure that the shop owner will not disappointed in the site when admin banned product that should not been banned.

### **4.3 System Site Map**

Sitemap shows the structure of each webpage, and the redirect webpage. There are four kinds sitemap. There are Not logged in user, logged in, shop owner, and admin site map (Figure 2-5).

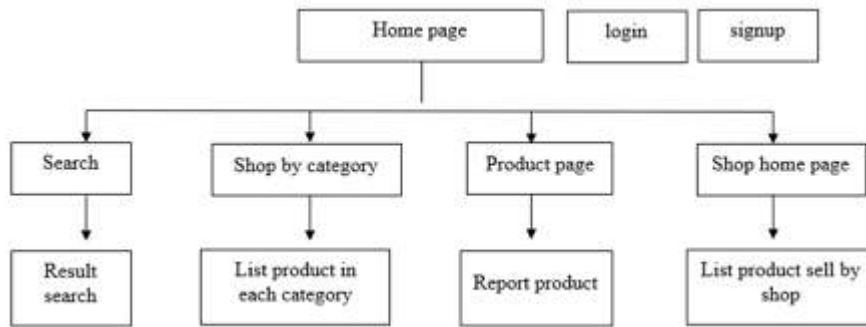


Figure 2: Non-logged in Users Sitemap

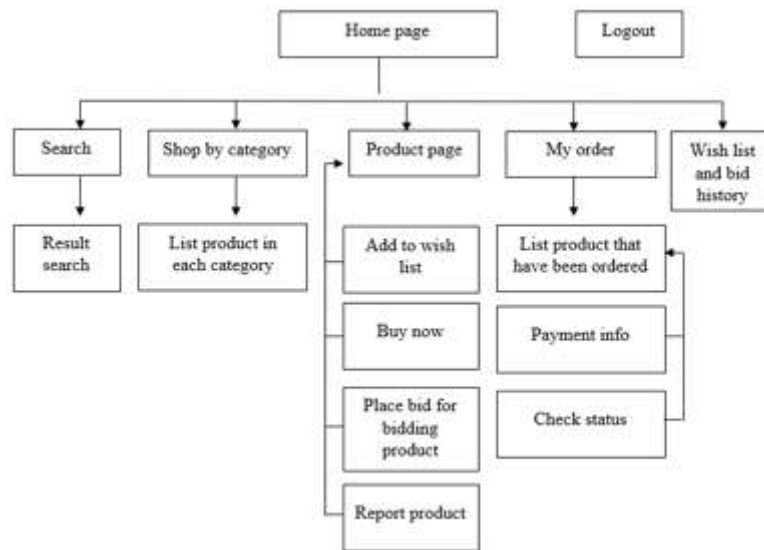


Figure 3: Logged in Users Sitemap

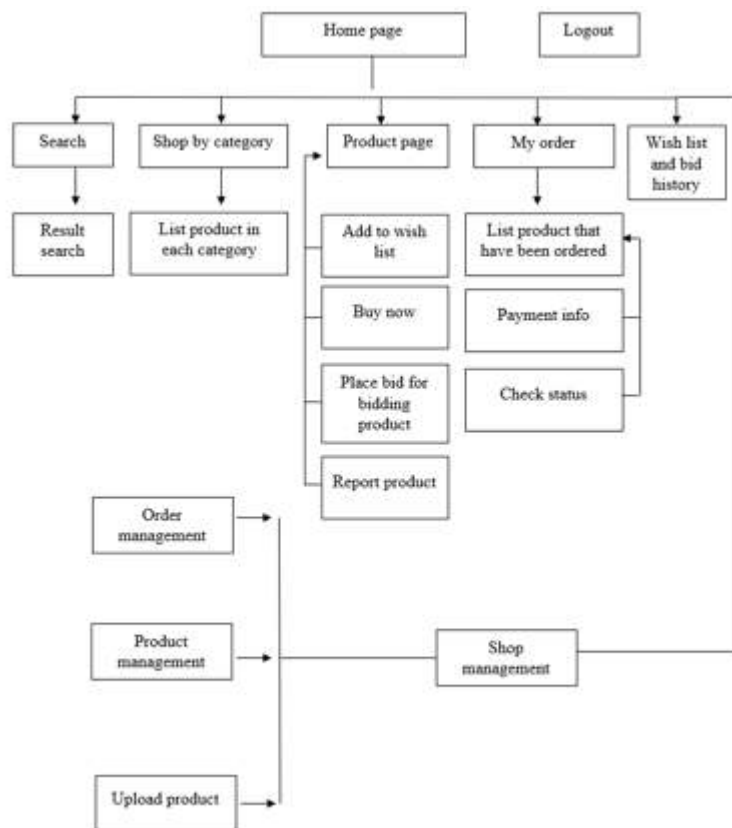


Figure 4: Shop Owners Sitemap

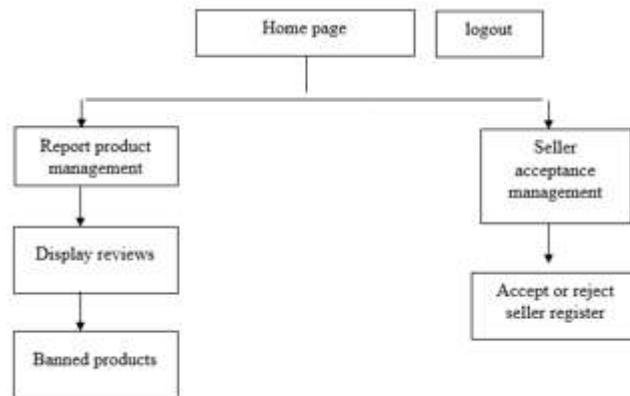


Figure 5: Admin Sitemap

## 5. Results

First prototype of Prowow web application had been tested by 30 Cambodian people there are 25 people who have and have not bought online, and 5 people who have sell online. The results are shown below:

### Buyer survey result:

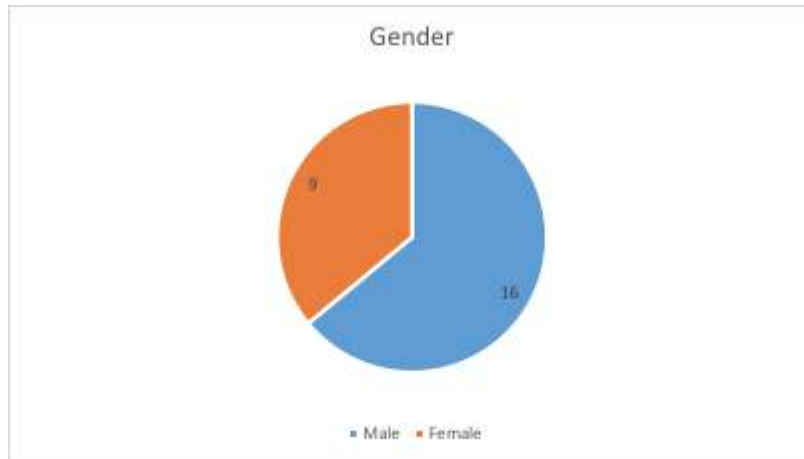


Figure 6: Gender survey result. There are 16 males and 9 females.

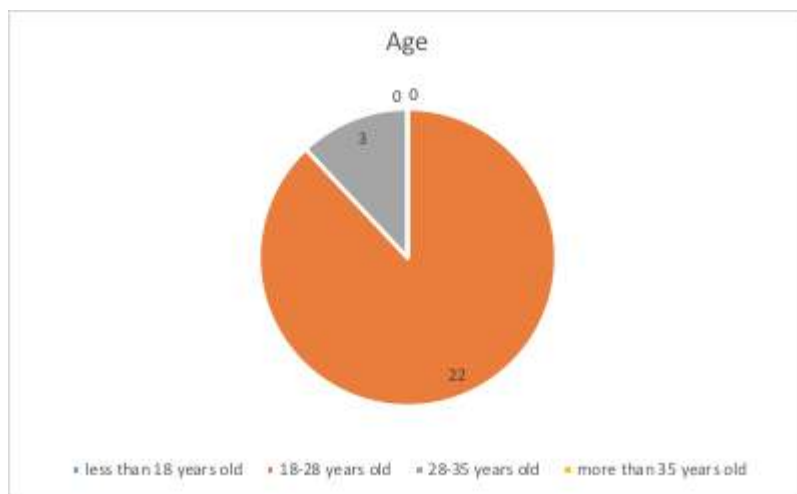


Figure 7: Age survey result. There are 3 who age between 28-35 and 22 who age between 18-25.



Figure 8: There are 23 who have bought online and 2 who never bought online.

Table 2: System Evaluation Result (General Users)

<b>Description</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
Website is mobile friendly (Responsive)	-	-	-	12	13
Product landing page provide the important information about the product such as: Product detail, product picture, shop name, shop tel.	-	1	1	8	15
Being able to report the product help customer to speak out to admin and bring more truth-worthy to the site.	-	1	-	10	14
Bidding feature could help buyer to get the affordable price.	-	-	4	16	5
Website is easy to order the product from the store.	-	-	2	9	14
Being able to check the status of the order help buyer to keep update with their order.	-	-	-	11	14
Postman verification code is very helpful for buyer.	-	-	1	9	15
The home page is interesting, clear, and easy to understand.	-	-	1	12	12
Shop home page is clear and provide all necessary information of the shop.	-	-	-	16	9

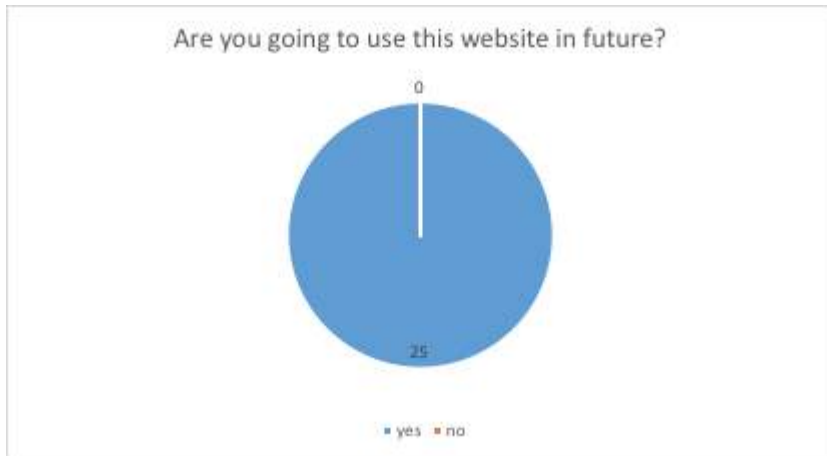


Figure 9: All the responses will use the website in the future.

Yes/No question was used in the survey question “Are you going to use it in the future?” since this question intends to ask the decision to use it in the future or not.).

According to the result in (table 2) there are 49.33% of strongly agree, 45.77% of agree, 4% of neutral, and 0.9% of disagree will actually use the site in the future as show in (figure 9).

**មតិវិគន់ដើម្បីការអភិវឌ្ឍន៍នៅពេលអនាគត (Suggestion for the future development.)**

25 responses

- Make more interesting design on the home page
- want feedback icon in home
- want to see more about photo of product
- សូមជួយបង្ហាញពីផលិតផលដែលបានដឹកជញ្ជូននៃផលិតផលមកទាន់ដំណើរការ
- Should have case delivery and canceled product providing
- post office problem in cambodia
- bidding price should have the maximum price
- ត្រូវតែមានផលិតផលថ្មីប្រសិនបើបានប្រើប្រាស់ប្រព័ន្ធប្រឹក្សា
- ត្រូវមានសេវាសម្រាប់បញ្ជូនផលិតផល
- Should have more shop for customer order
- ត្រូវតែបញ្ជាក់ប្រព័ន្ធបញ្ជាទិញផលិតផលដែលបានដឹកជញ្ជូន
- ការទំនើបទាំងអស់សូមអោយមានគុណភាព
- 
- ចង់បានរបស់ដែលមានគុណភាពល្អ
- ផ្គត់ផ្គង់ម៉ូឌែលទំនើបជាមួយនឹងការបញ្ជូនទំនិញទាន់ដំណើរការ
- Add gallery to provide more specific information.
- Website ក្រុមហ៊ុនសំបុត្រ គោលដៅ តែងតែស្រាវជ្រាវប្រព័ន្ធបញ្ជាទិញផលិតផល ដើម្បីមាន animation គឺជាប្រព័ន្ធបញ្ជាទិញ
- tracking system
- Strongly check the fake products
- Make more interesting home page.
- sub-category ,product gallery
- More category would be great.
- E-payment
- Website should be available on all devices



Figure 10: Screenshot of the suggestion for the future development.

The survey of system evaluation based upon the seller side is as follows.

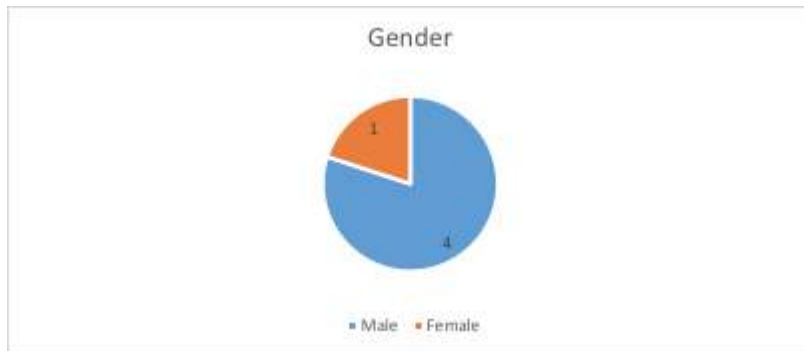


Figure 11: There are 1 female seller and 4 male seller.

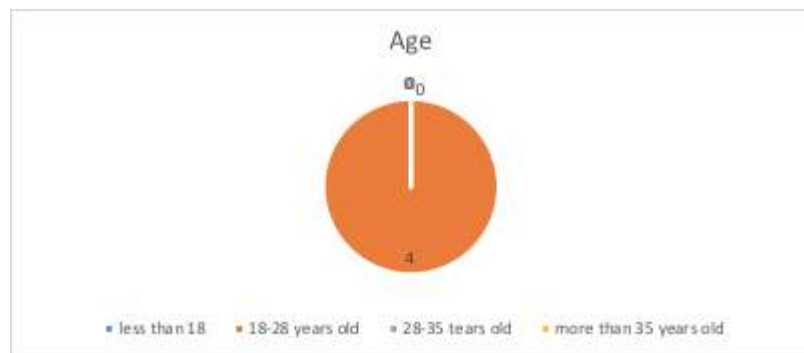


Figure 12: All the responses age between 18-28 years old.



Figure 13: There are 2 sellers who sell electronic accessory, 1 seller sell clothes, 1 seller sell fruit and 1 seller sell cosmetic

Table 3: System Evaluation Result (Admin/Sellers Side)

Description	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Website is easy to manage the order.	-	-	-	4	1

Website is easy to manage the stock.	-	-	-	4	1
Website has the feature (QR code, and information printing) that could help us to deliver product to customer easily.	-	-	-	1	4
Website offers full feature to edit product.	-	-	-	3	2
Bidding feature could bring more benefit to the store and bring the product more competitive price.	-	-	-	4	1
The UI of order management is clear and easy to understand.	-	-	-	4	1
The UI of product management is clear and easy to understand	-	-	-	3	2
The UI of add product is clear and easy to understand.	-	-	-	3	2
The UI of add bidding product is clear and easy to understand.	-	-	-	4	1
The shop home page shows all the information about the store and helpful for the store to share to social media	-	-	-	3	2

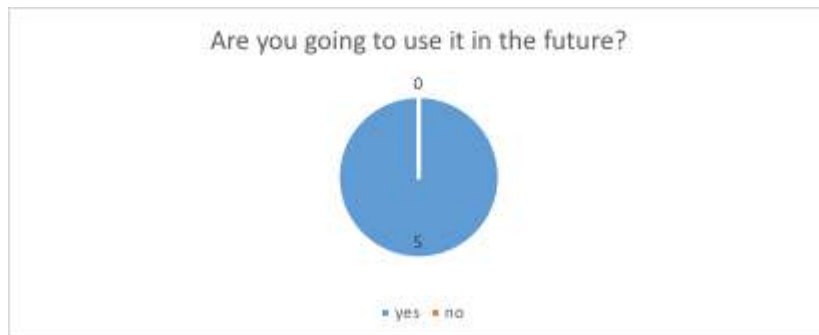


Figure 14: All the responses are yes

Yes/No question was used in the survey question “Are you going to use it in the future?” since this question intends to ask the decision to use it in the future or not.).

According to the result in (table 3) there are 66% of agree and 34% of strongly agree will actually use the site in the future as show in (figure 14).



Figure 15: Screenshot of the suggestion for the future development.

## 6. Discussion and Conclusion

This research presents Prowow web application which is the multi-vendor e-commerce site in Cambodia is made for traditional shop or store and for buyer to sell or buy easily in the site without too much learning curve and free to register. Prowow web application is the application that make for Cambodian scenario including the proof of payment by sending the receipt to buyer, delivering by taxi with code to verify that product has been delivered successfully, and reporting the product by buyer if the product is inappropriate. At first, we surveyed Cambodia people by giving them questionnaire and interviewing them about their opinion against the uses of e-Commerce in Cambodia in order to design and analyses the function that could possibly work in the real scenario. At the results, we developed Prowow web application which could make the shop or store decide to choose modern business over traditional business focusing on Cambodia people scenario. After that we conducted the system evaluation through the uses under general users as the buyers and the sellers/admin. Questionnaire and interview is the tool to test the hypothesis. We target on customer and as well as the shop or store owner to make sure that the site can be used on both buyer and seller. The expected outcome would be user satisfaction on the simplicity and trustworthiness of usage of the web application. From the results of both evaluation show that the users are generally satisfied and willing to use the system as the e-Commerce platform. In terms of general users, they are satisfied in the following points: easy to understand, order process is suitable and post man verification throughout the QR-code scanning. In terms of admin, they are satisfied with the new feature of QR-code verification. Some comments for the further development such as: adding the tracking system, e-payment and user interface/user experiences design improvement. In the future, we will deploy the obtained comments from the users and implement in the real uses.

## Acknowledgement

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## 7. References

- Hutchinson, K., & Molla, A. (2009, April). Mapping the dynamics of social enterprises and ICTD in Cambodia. In 2009 International Conference on Information and Communication Technologies and Development (ICTD) (pp. 163-172). IEEE.
- Jib Computer Group. (2019, April 19). Jib Computer Software and Hardware Computer Selling in Thailand. Retrieved from <https://myphsar.com/>
- Jinarat, V. eCommerce Infrastructure in Thailand and Its Neighboring Countries.
- Khmer24.com. (2019, April 19). Khmer24.com, the biggest online market in Cambodia. Retrieved from <https://www.khmer24.com/>
- Myphsar.com. (2019, April 19). Myphsar.com, the biggest online market in Cambodia. Retrieved from <https://myphsar.com/>
- Shen, W., & Liu, S. (2003, November). Formalization, testing and execution of a use case diagram. In International Conference on Formal Engineering Methods (pp. 68-85). Springer, Berlin, Heidelberg.

# **IMPACT OF PRIVATE CAPITAL INFLOWS TO ECONOMIC GROWTH OF THAILAND**

**Tuangporn Pinudom**  
**Business Administration Program**  
**Burapha University International College**  
**Chonburi 20131, Thailand**  
**Email: tuangporn.pin@gmail.com**

## **Abstract**

This paper analyzes the relationship of private capital inflows including foreign direct investment inflows (FDI inflows) and foreign portfolio investment inflows (FPI inflows), which comprises of equity securities and debt securities to economic growth of Thailand during the period of 1991 to 2010. The analysis uses the simple linear regression model. The result showed that private capital inflows had a significant impact to economic growth of Thailand.

Keywords: Private capital flows, foreign direct investment, foreign portfolio investment, economic growth

## **1. Introduction**

Economic growth of the country can be measured by gross domestic product (GDP), which is the value of goods and services produced by the nation's economy less the value of goods and services used up in the production. GDP is considered as the sum of personal consumption expenditures, gross private domestic investment, net exports, and government expenditures and gross investment (Dynan and Sheiner, 2018). The economic growth of the country or GDP can be affected by several factors. Several researches have studied the determinants of the economic growth.

Private capital inflows to Thailand can be separated into 2 categories, bank and non-bank. The banking sector began to play an active role from 1993 onward. The non-bank sector consists of foreign direct investment (FDI), loans, foreign portfolio investment (FPI), and non-resident baht account (NRB). (Thailand Development Research Institute, 1999).

Foreign direct investment (FDI) is a large portion of capital flows. For the past 10 years, FDI fluctuated over the years. The magnitude of FDI to Thailand has varied over the time and the numbers has been still positive. Since late 2000, the volume of FDI inflows has increased at a progressive rate.

Foreign portfolio investment (FPI) is another important channel of capital flows. The flows can be the channel of equity securities and debt securities. The equity net flows and debt-securities net flows showed consistent trend over time from 1998 to 2004. After the baht depreciation, the magnitude of equity investment and debt-securities investment decreased consistently, especially in late 2000 (Asian Development Bank, 2008).

The last part of capital inflows includes loans and non-resident baht account (NRB). Since 1997, the flows of loans and others have decreased due to baht currency depreciation. After 2000, the

flows fluctuated over the times. Change in loan has been affected by change in interest rate and exchange rate (Asian Development Bank, 2008).

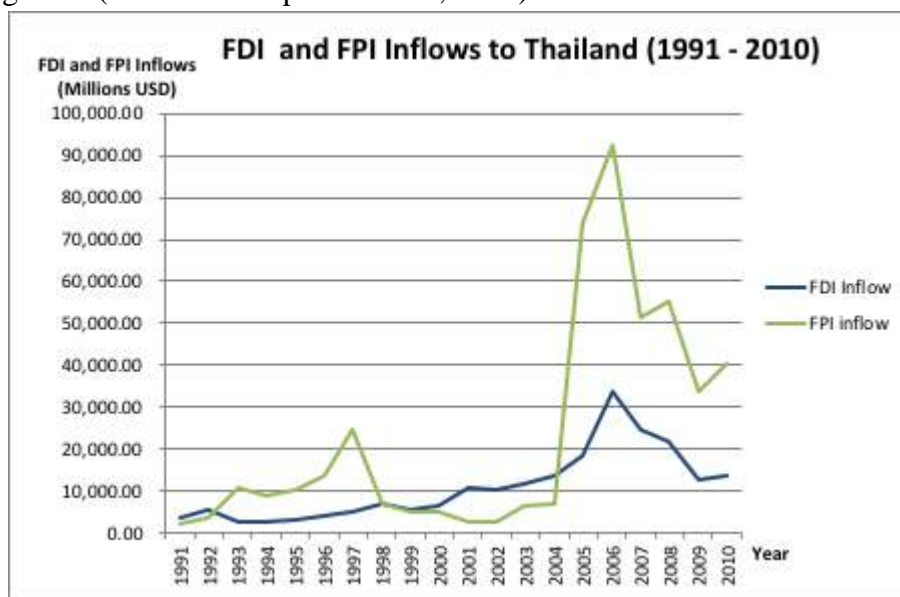


Figure 1. FDI and FPI inflows to Thailand (1991 – 2010) (Bank of Thailand, 2019)

## 2. Research Objectives

The objective of this research is to examine the relationship of the private capital inflows and the economic growth of Thailand (GDP) over the period of 1991 – 2010. However, the major components of the private capital inflows comprise FDI inflows and FPI inflows (equity securities and debt securities). Therefore, the association of these two components and GDP will be included.

## 3. Literature Review

### 3.1 Economic Growth

The total output of the economy can be measured by Gross Domestic Product (GDP), which adds consumption, investment, government spending, and net exports. GDP tracks all expenditures on final goods and services produced in the country. GDP is useful for an accurate measure of recent output growth. It can show where the economy is headed. The information can be particularly important when the changes ahead are unusually large, such as at the start of a recession. Some researchers have found that GDP improves the country’s ability to recognize the start of recessions. (Council of economic advisers, 2015).

Asian countries are considered as the fastest growing economies and rising economic powers. In addition, the countries tend to have more economic integrations, the foreign capital flows become more important to the emerging market economies (EMS) (Ahmad, Draz, and Yang. 2017).

### 3.2 Private Capital Inflows

Many researches have studied the impact of net private capital flows on the economic growth of emerging economies. According to Institute of International Finance Inc. (2003), it shows that economic growth is one of the most important factors influencing net private capital flows to emerging economies. The strong economic growth can also act as a stimulus to attract foreign investment (Vinh, 2010).

There is a positive impact of net private capital flows to the host countries in the emerging Asian economies. The impact is more intense for countries with higher degree of international trade openness, high level of domestic infrastructure development, and a high degree of financial development. However, if countries have high inflation rates, this effect will become negative (Vinh, 2010).

From the research of School of Economics, University of New South Wales 2010, using data covering the period 1981–2001, provided by the International Monetary Fund's International Financial Statistics (IFS) and the World Bank's World Development Indicators, the empirical results show there is a positive and strong relationship between net private capital flows to emerging Asian markets and their economic growth rates. The positive impacts of net private capital flows on economic growth are even stronger when there is greater degree of international trade openness, good infrastructure and a higher level of financial deepening.

According to the World Bank (2000), private capital inflows to developing countries have been related with an increase of domestic investment. This relationship seems to be strong in Africa, where is least integrated with international financial markets.

A number of studies on the determinants of private capital flows have increased over the times. These studies have focused on external determinants, which are also called push factors, and internal determinants (pull factors). The external factors examined how the economic conditions of capital-exporting countries (developed countries) affect to capital inflows in developing countries. Low profit in developed countries is an important cause of capital flows to developing countries. The external factors also include international interest rate and world growth rates. Internal factors are the macroeconomic conditions of the recipient country that influence private capital flows to this country. For the internal factors, they are economic growth rate, inflation, trade openness, education, and political stability, which can be influenced by policy of the developing country (International Monetary Fund, 2010).

Private capital flows, including FDI and FPI, do not always have a positive impact to the economic growth. The effects also depend on the host country's absorbability capacity (Ahmad, Draz, and Yang. 2017).

### 3.3 Foreign direct investment Inflows (FDI Inflows)

Foreign direct investment, which is a major component of foreign capital flows, is a category of cross-border investment made by a resident in one economy (the direct investor) with the objective of establishing a lasting interest in an enterprise that is resident in an economy other than that of the direct investor. The motivation of the direct investor is a strategic long-term relationship with the direct investment enterprise to ensure an important degree of influence by the direct investor in the management of the direct investment enterprise. Direct investment statistics cover all cross-border transactions and positions between enterprises. The "lasting interest" is happened when the direct investor owns at least 10% of the voting power of the direct investment enterprise. Direct investment may also allow the direct investor to gain access to the economy of the direct investment enterprise (OECD, 2008).

FDI inflows can affect capital due to they are source of financing. Capital formation is considered as a determinant of economic growth. Moreover, FDI also increase a host country's productivity and comparative advantage (Moudatsou, 2003).

FDI provides the several benefits to the emerging countries in terms of the diffusion of technology and knowledge, spillovers, upgrading the quality of factors of production, and increasing more

competitiveness (Vinh, 2010). FDI has potential to transfer ideas from industrial economies to developing countries and will increase the productivity of the countries (Romer 1993).

According to Sothan (2017), the causal relationship between FDI and economic growth of Cambodia was examined over the period of 1980 – 2014. The results showed the strong evidence on causal impact of FDI on Cambodia's economic growth.

### 3.4 Foreign portfolio investment Inflows (FPI Inflows)

Foreign portfolio investment is another important part of private capital flows. It is defined as the investment by a resident entity in one country in the equity and debt securities of an enterprise resident in another country. The investment seeks primarily capital gains and do not necessarily reflect a significant and lasting interest in the enterprise. The investment category includes investments in bonds, notes, money market instruments and financial derivatives other than those included under direct investment (United Nations Conference on Trade and Development, 1999). According to Ahmad, Draz, and Yang (2017), the relationship of FPI and economic growth of ASEAN5 had been studied by using the data of FPI, FDI, and GDP from 2001 to 2013. The result showed the significant relationship between FPI and the economic growth of ASEAN5.

The FPI inflows would affect to growth. The deeper financial integration has facilitated FPI inflows into local equity market, which will enhance economic growth of the country (Ferreira and Laux, 2009)

According to Bussiere and Fratzscher (2008), the positive effect of FPI to the economic growth has been confirmed. However, the acceleration of economic growth after capital flow liberization can be driven by investment.

## 4. Research Methodology

This paper studies the impact of private capital inflows including FDI inflows and FPI inflows (only equity securities and debt securities) on the economic growth of Thailand (GDP) during year 1999 - 2010.

The analysis is under the technique of simple linear regression with SPSS statistic program to observe the relationship of private capital inflows to GDP of Thailand. The hypothesis of this analysis is as followed:

H0: Private capital inflows do not have a significant effect on GDP.

H1: Private capital inflows have a significant effect on GDP.

The analysis of the relationship is conducted as shown below:

$$GDP_t = \beta_0 + \beta_1 (PCI_t)$$

Where GDP represents Gross Domestic Product at year t

PCI represents private capital inflows at year t

t represents time period

$\beta_0$  represents as intercept

$\beta_1$  represents parameter

## 5. Results

The empirical results show that private capital inflows including FDI inflows and FPI inflows have a significant effect on GDP of Thailand. The detail of the result is shown in below tables.



**Table 1: The simple regression result**

Variable	B	SE	Beta	t	Sig
Constant	4836.139	293.213		16.494	.000
Private capital flow	.030	.006	.746	4.748	.000
<b>R Square = 0.556 SE = 918.95116 F = 22.548 Sig = 0.000</b>					

$$\text{GDP} = 4836.139 + 0.03(\text{Private capital flow})$$

Table 1 shows R square is 0.556. This value means that 55.6% of the dependent variable, GDP, can be explained by the independent variable, private capital flow. The F significance is 0.00 which shows that the model is significant.

## 6. Discussion and Conclusion

*The economic growth of the country is affected by several factors. Major parts of private capital inflows including foreign direct investment (FDI) and foreign portfolio investment (FPI). They are the factors used for analyzing the impact to the economic growth of Thailand (GDP) in this research.*

*The research result shows that private capital inflows have a significant effect to GDP of Thailand. This supports the H0 concluding that private capital inflows have a significant effect to GDP. This result also supports the research results from Vinh (2010), School of Economics, University of New South Wales (2010), and World Bank (2000). These research papers concluded a positive and strong relationship between net private capital flows to and the economic growth rates.*

*The research result can show to the government or related organizations that they shall be aware to promote private capital inflows to the country. It could be in form of FDI, which is related to promoting the foreign companies to open the business or operate the business in Thailand. Or it could be in form of FPI, which is related with investment in financial markets of Thailand. Once the private capital inflows increases, the stronger economic growth of Thailand can be expected as a result.*

## 7. References

Ahmad, F., Draz M. U., and Yang S. C. (2016). *Foreign Portfolio Inflows and Economic Growth: Evidence from ASEAN5*. Retrieved from

- file:///D:/Burapha%20Uni/Research-TICC%202019/SSRN-id2613806.pdf  
(April, 25, 2019).
- Asian Development Bank. (2008). *Managing Capital Flows: The case of Thailand*. Retrieved from <https://www.adb.org/publications/managing-capital-flows-case-thailand> (December, 20, 2018).
- Asian Development Bank. (2015). *Thailand Industrialization and Economic Catch-up*. Retrieved from <https://www.adb.org/sites/default/files/publication/178077/tha-industrialization-econ-catch.pdf> (December, 26, 2018).
- Bhagwati, J. (1998). The capital myth: the difference between trade in widgets and trade in dollars, *Foreign Affairs*, 77, 7–12.
- Bosworth, B. (n.d.). *Economic Growth in Thailand: The Macroeconomic Context*. Retrieved from [https://www.researchgate.net/publication/265106957\\_Economic\\_Growth\\_in\\_Thailand\\_The\\_Macroeconomic\\_Context](https://www.researchgate.net/publication/265106957_Economic_Growth_in_Thailand_The_Macroeconomic_Context) (January, 10, 2019).
- Boyd, J. H. and Smith, B. D. (1992) Intermediation and the equilibrium allocation of investment capital: implications for economic development, *Journal of Monetary Economics*, 30, 409–32.
- Bussiere, M. and Fratzscher M. (2008). Financial Openness and Growth: Short-Run Gain, Long-Run Pain?. *Review of International Economics*, 16(1), 69-95.
- Council of economic advisers. (2015). A better measure of economic growth: Gross domestic output.
- Dynan, K., and Sheiner, L. (2018). *GDP as a Measure of Economic Well-being*. *Hutchins Center Working Paper #43*. Retrieved from <https://www.brookings.edu/wp-content/uploads/2018/08/WP43-8.23.18.pdf> (March, 14, 2019).
- Ferreira, M. A. and Laux, P. A. (2009). Portfolio Flows, Volatility, and Growth. *Journal of International Money and Finance*, 28(2), 271-292.
- International Monetary Fund. (2010). On the Drivers of FDI and Portfolio Investment: *A Simultaneous Equations Approach*. *International Economic Journal*, Vol. 26, No. 1, March 2012, 1–22. Washington, DC, USA.
- Moudatsou, A. (2003). Foreign Direct Investment and Economic Growth in the European Union. *Journal of Economic Integration*, 18(4), 689-707.
- Monetary and Economic Policy Department. De Nederlandsche Bank, Amsterdam. Netherlands. (2000).
- Office of the National Economic and Social Development Board. (2017). *Gross Domestic Product Q4/2016 Report*.
- OECD. (2008). Benchmark Definition of Foreign Direct Investment. Retrieved from <https://www.oecd.org/daf/inv/investmentstatisticsandanalysis/40193734.pdf> (January, 30, 2019).
- Romer, P. (1993). Idea Gaps and Object Gaps in Economic Development. *Journal of Monetary Economics*, 32(3): 543–73.
- School of Economics, University of New South Wales. (2010). *Net Private Capital Flows and economic growth - The case of emerging Asian economies*.

- Retrieved from  
<https://www.tandfonline.com/doi/abs/10.1080/00036840801982676?journalCode=raec20> (March, 12, 2019).
- Singh, A. (2003) Capital account liberalization, free long-term capital flows, financial crises and economic development, *Eastern Economic Journal*, 29, 191–216.
- Sothan, S. (2017). Causality between foreign direct investment and economic growth for Cambodia. *Cogent Economics & Finance*. Retrieved from <https://www.cogentoa.com/article/10.1080/23322039.2016.1277860> (February, 20, 2019).
- Thailand Development Research Institute. (1999). Foreign Capital Flows to Thailand: Determinants and Impact. Retrieved from <https://tdri.or.th/wp-content/uploads/2013/01/m52.pdf> (December, 8, 2019).
- United Nations Conference on Trade and Development. (1999). Comprehensive Study of the Interrelationship between Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI).
- Vinh, V. X. (2010). Net private capital flows and economic growth – the case of emerging Asian economies. *Applied Economics*, 42, 3135–3146
- World Bank. (2000). Thailand economic monitor (English). Retrieved from <http://documents.worldbank.org/curated/en/310951468303534250/Thailand-economic-monitor> (January, 10, 2019).

# Determinants of Job Satisfaction: A Proposed Framework

Emeela Wae-Esor<sup>1</sup>, Ruangchai Ruangyangmi<sup>2</sup>, Nicha Tovankasame<sup>3</sup>, Jakraphan Chaopreecha<sup>4</sup>

Faculty of International Studies<sup>1</sup>  
Prince of Songkla University  
Phuket 83120, Thailand

Email: [emeela.w@phuket.psu.ac.th](mailto:emeela.w@phuket.psu.ac.th)

Faculty of International Studies<sup>2</sup>  
Prince of Songkla University  
Phuket 83120, Thailand

Email: [ruangchai.r@phuket.psu.ac.th](mailto:ruangchai.r@phuket.psu.ac.th)

Faculty of International Studies<sup>3</sup>  
Prince of Songkla University  
Phuket 83120, Thailand

Email: [nicha.t@phuket.psu.ac.th](mailto:nicha.t@phuket.psu.ac.th)

College of Computing<sup>4</sup>  
Prince of Songkla University  
Phuket 83120, Thailand

Email: [jakraphan.c@phuket.psu.ac.th](mailto:jakraphan.c@phuket.psu.ac.th)

## Abstract

This paper reviews and collects empirical evidence from existing literature on determinants that influence job satisfaction. The aim of this paper is to develop a framework that fits the context of this study. In line with the literature-based analysis, a framework of employee job satisfaction is developed as a result of the study by illustrating the positive relationship between rewards & compensation, nature of work, staff relations, and job satisfaction. The study is placed within the social exchange theory context as the theory emphasizes that when individuals benefit from other entities, they are basically obligated to reciprocate. This paper provides a comprehensive framework that contributes to the conceptualization of job satisfaction and will help practitioners to understand the fundamental causes of job satisfaction in organizations.

**Keyword:** Job Satisfaction; Rewards & Compensation; Nature of Work; Staff Relations

## 1. Introduction

Job satisfaction could be understood as an employee's feeling which indicates happiness in working. Job satisfaction represents how employees feel about their job and what they think about their job (Tumen & Zeydanli, 2016, p. 427). Employee with high level in job satisfaction leads to have positive mind-set when they feel about their responsibilities or tasks of their job while employee with low in job satisfaction leads to have negative thoughts with their job. However, job satisfaction is a multidimensional perception impacted by various variables (Tran, Johnson, Fernandez & Jones, 2010, p.149). There would be various factors determined the level of job satisfaction. While different factors possibly will specific to different industries or occupations.

To understand job satisfaction attitude, it need to understand the concept and interrelated facets of job satisfaction. A facet of job satisfaction can be explained as any element of a job that generates feelings of employees' satisfaction or dissatisfaction. This perception can be helpful

to organizations indicate employee retention areas in which improvement in Human Resource field is needed to be focused (Saari & Judge, 2004, p.399).

Facet satisfaction indicates the tendency for a workforce to be more or less satisfied with a variety of facets or characteristics of the job. However, two employees might have the same overall level of job satisfaction but might have different backgrounds concerning facet satisfaction.

The most common facets which employees consider in judging their job satisfaction are compensation, promotions, supervision, colleagues and the nature of work (Colquitt, Lepine & Wesson, 2009, p.115). The "*compensation satisfaction*" refers to an individual's feeling about their salary, whether it is as much as they deserve or enough for their normal expenses and extra items spending. Compensation or pay satisfaction depends on a comparison of the pay that they wish for and the pay they would be given (Mabaso & Dlamini, 2017, p. 82). While "*promotion satisfaction*" reflects to an individual's feeling about the organization's promotion strategies and their carrying out, including whether promotions are succession, fair and based on employee competence. Contrasting with pay satisfaction, several employees possibly does not want to repeat promotions because promotions make them feel to have more duties and increase their workloads while some employees want promotions frequently because they probably give chances to further personal growth and reputation (Colquitt et al., 2009, p.198). The "*supervision satisfaction*" refers to an individual's feeling about their superior whether the superior is knowledgeable, polite or good in communication. Most employees would love their boss to help them in obtaining necessary resources, offering rewards for the good performances and protecting them from unnecessary distractions (Dwumah, Gyasi-Boadu, & Ayamga, 2015, p.541). The "*colleague satisfaction*" refers to an individual's feeling about their colleagues, whether their fellow friends are smart, responsible, helpful and fun (Chaubey, Mishra, & Dimri, 2017, p. 21). The last facet is "*satisfaction with the nature of work*". It refers to an individual's feeling about their actual duties, whether those duties are tough, interesting, valued and make use of skills rather than being duplicate and awkward (Fugar, 2007, p.120).

From the above discussions, the first two facets which are pay and promotion satisfactions described the outcomes or result from work while supervisors, co-workers' satisfactions focused on people who surround work but the only one facet focuses on what employees actually do is work itself or nature of work.

Based on the above arguments, this paper will focus the three factors, which are rewards & compensation, staff relations, and nature of work toward job satisfaction.

## **2. Research Objective**

This paper aims to review the existing literature on the determinants that impact employee job satisfaction with social exchange as a theoretical grounding to propose a framework that focuses on how rewards & compensation, staff relations, and nature of work influence employee job satisfaction.

## **3. Literature Review**

The concept of job satisfaction can be understood as an employee's total feeling about their job or overall job satisfaction which could be comprised from various aspects or facets of their job satisfaction. In general, overall job satisfaction is examined by the distinction between all the things when employees feel they should receive from their job or all the things they actually do receive.

Previous studies would prefer to define job satisfaction based on Herzberg theory. As such, job satisfaction prior researches were basically based on the perception that the source of

satisfaction comes from intrinsic factors related to job content and extrinsic factors related with the working environment.

In addition, this paper intends to adopt the definition of job satisfaction as the feeling of individuals towards their jobs and the source of job satisfaction gains from both intrinsic and extrinsic factors.

### **3.1 Rewards & Compensation**

The concept of rewards refers to the amount of monetary and non-monetary, benefits which given to an employee by an employer in return for work achieving (Armstrong & Murlis, 2007, p.9). While compensation is defined as the money, benefits, and rewards of employment (Drafke, 2006, p.200) and commonly regard to all forms of monetary returns, tangible services and advantages which employees obtain as part of an employment relationship (Milkovich & Newman, 2008, p.213).

Compensation is one of the main functions in HR management. The integration of compensation and management strategies allow in businesses development as well as the employees' job satisfaction. The importance of compensation in satisfying economic need of employees could never have left behind since what employees will hold in his employment relationship is benefit (Salisu, Chinyio, & Suresh, 2015, p.282); this has been supported by several researches of job satisfaction in organizations.

According to Miller (2014), the report appeared on SHRM surveys of U.S. employees conducted in 2013 showed that financial reward was the top rated factor that drove job satisfaction among four generations of employees (Millennials, Generation X, Baby Boomers and Veterans). However, employee salary is not always to be concerned as a certain amount of money or financial value of benefits, some employees more likely to estimate worth in terms of their reward package is fair and suitably matched to their perceived self-value (Stinchcomb & Leip, 2013, p.1215).

Apart from financial compensations, workforces also consider psychological rewards and a pleasure with psychological supportive rewards could influence employees' attitudes. The compensation needs to be bonded with the justice and it should not only the financial factor to be taken into consideration however psychological, social and moral effects also should be the part of the compensation decision.

#### **3.1.2 The Relationship Between Rewards & Compensation, and Job Satisfaction**

Several public and private organizations believed that the way to increase employees' job satisfaction level is to increase salary and the monetary benefits (Al-Zoubi, 2012, p.8). They believed that the raise of those benefits will drive employees' satisfaction. However, the amount of the monetary benefits alone will not increase the level of job satisfaction since employees will not consider the work as a source of income only but it may regard of other cause e.g. promotion and opportunities for career advancement (Shields & Ward, 2001, p.682).

Job satisfaction level could be increased by offering good package of compensation like suitable pay, promotional opportunity and recognition. However, higher level of experienced employees basically had more confidence and less concern about pay than younger employees did (Ernst, Messmer, Franco, & Gonzalez, 2004, p.222). Other research indicated that the increasing of salary will only impact to job satisfaction among low level income employees but not for the high level employees (Al-Zoubi, 2012, p.6).

Based on previous empirical studies of the relationship between rewards & compensation, and job satisfaction, the following is proposed:

*H1: There is a positive relationship between rewards & compensation, and job satisfaction.*

### **3.2 Nature of Work**

The concept of nature of an employee's work is understood as the type of work that employee performs. It basically indicates the daily tasks which hold as part of employee's job and also indicates to other non-routine tasks that may be required by the job. In addition, nature of work refers as the extent to which the job provides an employee with promoting tasks, opportunities for enhancing employee skills and learning (Robbins, Odendaal, & Roodt, 2003, p.243). However, nature of work often called as intrinsic job characteristics which include work challenges and scope of job (Saari & Judge, 2004, p.397)

### **3.2.1 The Relationship Nature of Work and Job Satisfaction**

Several previous research findings suggested that the relationship between nature of work and job satisfaction does in fact exist. Previous studies show that nature of work is the important factor in determining job satisfaction of employee at work. It is generally accepted that the way in which a job is designed has a substantial impact upon the attitudes, beliefs and feelings of the job holder.

Several organizations often overlooked on the important of the impact of work itself when addressing job satisfaction. In fact, work itself found to be one of the most significant factors toward job satisfaction (Kim, 2002, p.234) while any organizations must ensure that work attributes need to be interesting and challenging as possible (Kovach, 1995, p. 94).

While the previous study found out that there is a significant difference in the level of job satisfaction between employees who work under uncomfortable working conditions (at the facility) and employees who work in normal working conditions (in the administration). Employees who work under the work shift, excessive strained by temperature, noise radiation etc. tend to be less satisfied with working conditions than employees who work in normal working conditions (Bakotic & Babic, 2013, p.207). However, job satisfaction can be achieved by employees if the task requires sufficient multiplicity and challenges while they can use their own skills and abilities to solve a problem (Rast & Tourani, 2012, p.93).

The explanation for the proposed link between nature of work and job satisfaction relates to the fact that the degree of an employee's job satisfaction derives from the nature of an individual's job values where some employees prefer working as part of a group, tend to prefer varied, complex and challenging tasks that allow them to utilize their abilities and skills (Jex, 2002, p.598) but some employees prefer a simple routine task and work alone (Onimole, 2015, p.203), these show that employees are different. Not every employee is looking for a challenging job or a simple routine task. Therefore, the need to understand individual's task is much important to determine employees' job satisfaction.

In view of the above findings, the following is proposed:

*H2: There is a positive relationship between nature of work and job satisfaction.*

### **3.3 Staff Relations**

Staff relations refer to workforce relationships which typically bring assistance and understanding in workplace (Ramasodi, 2010) as individual may receive guidance, suggestion, or information from workplace colleagues on a variety of work-related matters such as achieving tasks, and handling issues with colleagues, subordinates, supervisors, or clients.

Staff relationships have been considered important for both individuals and organizations. In general, trustful colleagues increase supports which facilitate individuals to complete their task and enhance cooperation, hence its lead employees gain feelings of comfort and be able to work together more effectively.

In addition, teamwork in workplace share more information and experiences about work related problem and teamwork is one of the keys to deliver a high quality of job therefore a cooperation

among workforces is regarded as a means of giving efficient outcome (Dreachslin, Hunt, & Sprainer, 2000, p.1406).

The collaborative among employees is one of the important keys to lead organization achieving their vision and mission. As workforce relationships is the important aspect of sufficient work environments. In fact, the relationship between employees is not only impact with employee to employee but it relates to other included employee and organization (Moore, Leahy, Sublett, & Lanig, 2013, p.174).

### 3.3.1 The Relationship Between Staff Relations and Job Satisfaction

Previous sections revealed that job satisfaction can be influenced by some certain factors. Nevertheless, various empirical studies showed that staff relation is one of the factors that impact job satisfaction. As previous research found that staff friendliness and support are listed as the most favourable reasons why employees stay with their jobs (Dols, Landrum, & Wieck, 2010, p.71). In fact, employees believe that their relations with colleagues also affect their own job performance (Takumpunya, 2009, p.8).

Previous researches supported that colleague satisfaction and job satisfaction are positively related (Takumpunya, 2009, p.7), in fact, employees' job satisfaction increases when they were advised and supported by their team members and had a good relationship among them. Teamwork is a perception of employee sufficiency (Kalisch, Lee, & Rochman, 2010, p. 939). Employee's teamwork has been related with the level of job satisfaction which the higher level of teamwork among workforces leads to increase job satisfaction.

Employee perceived supervisors' support and colleagues' support also predicts psychological health and also work outcome (Moreau & Mageau, 2012, p. 270). The more supervisors and colleagues' autonomy supportive; the more employees' work satisfaction increased, less psychological distress and intention to leave.

However, employees are looking for help initially from their colleagues whom they regard as their equals rather than seeking help from their superiors (Uslusoy & Alpar, 2013, p. 101). Employees often worked closely with their colleagues to fulfil their job duties rather than seeking help from their superior. Based on previous empirical studies of the relationship between staff relations and job satisfaction, the following is proposed:

*H3: There is a positive relationship between staff relations and job satisfaction.*

## 4. Research Methodology

This paper uses a systematic review of the literature on the factors that influence employee job satisfaction. The purpose of this systematic review is to collect the empirical evidence from literature that fits the context of this study.

This study is placed within the social exchange theory context as the theory strongly expresses the nature of relationship between two parties i.e. organization (employer) and employee as shown in Figure 1 which is in the process of bringing satisfaction when employees receive fair returns, it showed that having an organization that provides support is always in line with employees' gaining benefits, which in turn creates a sense of commitment to give a better return in the form of positive work attitudes and results in productivity gains.

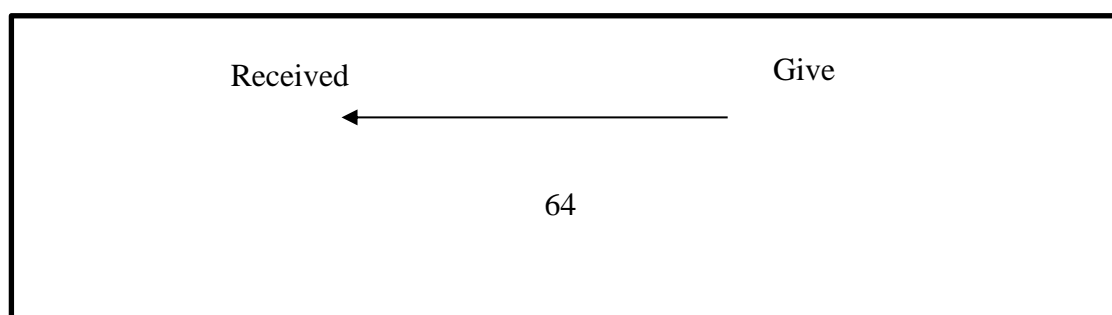






Figure 1: Social Exchange Theory Framework

In recent years, social exchange theory has explained in some organizational research contexts as it presents the conceptual underpinnings for understanding employees' job satisfaction (Chiu & Ng, 2013, p. 82).

## 5. Results

As the objective of this paper aims to propose a framework that focuses on how rewards & compensation, staff relations, and nature of work influence employee job satisfaction.

Therefore, this paper presents three hypotheses derived from literature in the domain of employee job satisfaction, further to which a framework is now proposed.

In this framework, which is shown in Figure 2, job satisfaction is the dependent variable, the independent variables are rewards & compensation, nature of work, and staff relations. Based on the study, the paper proposed a positive relationship between rewards & compensation, nature of work, and staff relations toward job satisfaction.

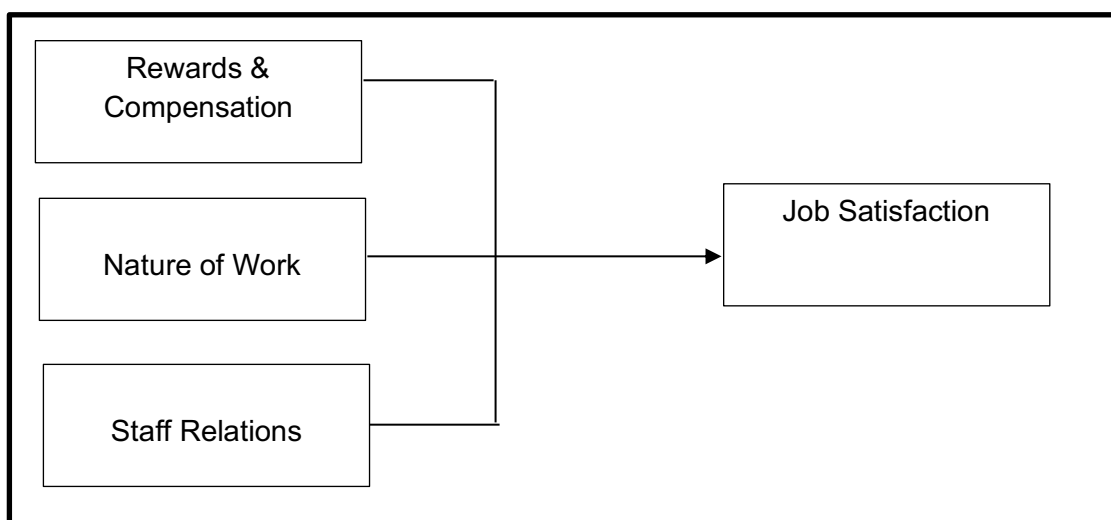


Figure 2: A proposed framework for determinants of job satisfaction

## 6. Discussion and Conclusion

The investigation is based on the previous studies about job satisfaction by presenting a theoretical framework of employee job satisfaction, demonstrating the relationships between rewards & compensation, nature of work, staff relations, and job satisfaction.

In the perspective of social exchange theory, when an organization offers supportive working conditions which ensure its build employees satisfied, an extra effort to conduct a productive task tends to be returned as a means of reciprocity for their organization (Flynn, 2005, p.737).

Similar to this study, it is proposed that several factors, i.e., rewards & compensation, nature of work, and staff relations should have a positive impact on employees' job satisfaction. The paper employs social exchange theory to develop these hypotheses as the theory emphasizes that when individuals benefit from other entities, they are basically obligated to reciprocate. Based

on this relationship, the study proposed that employees who gained benefit or support which provided by organizations would perform task in a positive way for the benefit of organizations. In addition, being able to gain benefit and support offered by organizations would influence employees to return in the form of good work attitudes and more likely to increase the level of job satisfaction. The study revealed that this interchange process delivers satisfaction when individuals obtain fair returns from the relationships.

## 7. References

- Al-Zoubi, M.T. (2012). The Shape of the Relationship between Salary and Job Satisfaction: A Field Study. *Far East Journal of Psychology and Business*, 7(3), 1-12.
- Armstrong, M., & Murlis, H. (2007). *Reward Management: a handbook of remuneration strategy and practice*. London: Kogan Page.
- Bakotic, D. & Babic, T. (2013). Relationship between Working Conditions and Job Satisfaction: The Case of Croatian Shipbuilding Company. *International Journal of Business and Social Science*, 4(2), 207-213.
- Chaubey, D. S., Mishra, N., & Dimri, R.P. (2017). Analysis of employee relationship management and its impact on job satisfaction. *Journal of Arts, Science & Commerce*, 8(2), 15-25.
- Chiu, W. Y. B., & Ng, F. F. (2013). Improvement of job satisfaction and organisational commitment through work group identification: an examination of the quantity surveyors in Hong Kong. *Australasian Journal of Construction Economics and Building*, 13(3), 80-95.
- Colquitt, J. A., Lepine, J. A., & Wesson, M. J. (2009). *Organizational Behavior. Improving Performance and Commitment in the Workplace*. New York, McGraw-Hill Irwin.
- Dols, J., Landrum, P., & Wieck, K.L. (2010). Leading and managing an intergenerational workforce. *Creative Nursing*, 16(2), 68-74.
- Drafke, M. (2006). *The Human Side of Organizations*. New Jersey, Prentice Hall.
- Dreachslin, J.L., Hunt, P.L., & Sprainer, E. (2000). Workforce diversity: implications for the effectiveness of health care delivery teams. *Social Science and Medicine*, 50(10), 1403–1414.
- Dwumah, P., Gyasi-Boadu, N., & Ayamga, L.A. (2015). Pay and Supervision as Correlates of Job Satisfaction Among Junior Workers in a Ghanaian University, *Journal of Social Sciences and Humanities*, 1(5), 540-544.
- Ernst, M. E., Messmer, P. R., Franco, M., & Gonzalez, J. L. (2004). Nurses' Job Satisfaction, Stress, and Recognition in a Pediatric Setting. *Pediatric Nursing*, 30(3), 219-227.
- Flynn, F. J. (2005). Identity orientations and forms of social exchange in organizations. *Academy of Management Review*, 30(4), 737-750.
- Fugar, F.D.K. (2017). Frederick Herzberg's motivation hygiene theory revisited: The concept and its applicability to clergy (A study of fulltime stipendiary clergy of the global evangelical church, Ghana. *Journal of Science and Technology (Ghana)*, 27(1), 119-130.
- Govender, D. (2010). *Factors influencing job satisfaction of managers at state owned enterprises* (Unpublished master's thesis). University of Pretoria, South Africa.
- Jex, S. M. (2002). *Organizational psychology: A scientist-practitioner approach*. New York, John Wiley & Sons, Inc.
- Kalisch, B. J., Lee, H., & Rochman, M. (2010). Nursing staff teamwork and job satisfaction. *Journal of Nursing Management*, 18(8), 938-947.

- Kim, S. (2002). Participative management and job satisfaction: Lessons for management leadership. *Public Administration Review*, 62 (2), 231-241.
- Kovach, K. A. (1995). Employee motivation: Addressing a crucial factor in your organization's performance. *Employment Relations Today*, 22(2), 93–107.
- Mabaso, C.M., & Dlamini, B.I. (2017). Impact of compensation and benefits on job satisfaction. *Research Journal of Business Management*, 11(2), 80-90.
- Milkovich, G., & Newman, J. (2008). *Compensation*. New York, McGraw-Hill.
- Moore, L., Leahy, C., Sublett, C., & Lanig, H. (2013). Understanding Nurse-to-Nurse Relationships and Their Impact on Work Environments. *MEDSURG Nursing*, 22(3), 172-179.
- Moreau, E., & Mageau, G. A. (2012). The importance of perceived autonomy support for the psychological health and work satisfaction of health professionals: Not only supervisors count, colleagues too!. *Motivation And Emotion*, 36(3), 268-286.
- Onimole, S.O. (2015). Work Design and Job Satisfaction. *International Journal of Humanities and Social Science* ,5(10), 202-207.
- Ramasodi, J.M.B. (2010). *Factors influence job satisfaction among healthcare professionals at Southrand Hospital* (Unpublished Master's Thesis of Public Health). University of Limpopo, South Africa.
- Rast, S., & Tourani, A. (2012). Evaluation of Employees' Job Satisfaction and Role of Gender Difference: An Empirical Study at Airline Industry in Iran. *International Journal of Business and Social Science*, 3(7), 91-100.
- Robbins, S.P., Odendaal, A., & Roodt, G. (2003). *Organizational behavior*. Cape Town, Prentice-Hall International.
- Saari, L.M., & Judge, T.A. (2004). Employees Attitude and Job Satisfaction. *Human Resource Management*, 43(4), 395–407.
- Salisu, J.B., Chinyio, E., & Suresh, S. (2015). The impact of compensation on the job satisfaction of public sector construction workers of Jigawa state of Nigeria. *The Business and Management Review*, 6(4), 282-296.
- Shields, M., & Ward, M. (2001). Improving nurse retention in the National Health Service in England: The impact of job satisfaction on intentions to quit. *Journal of Health Economics*, 20(5), 677 – 701.
- Stinchcomb, J.B., & Leip, L.A. (2013). Expanding the Literature on Job Satisfaction in Corrections: A National Study of Jail Employees. *Criminal Justice and Behavior*, 40 (11), 1209-1227.
- Takumpunya, C. (2009). Nurses' Job Satisfaction, Maeramad Hospital, Tak Province. *Buddhachinaraj Medical Journal*, 26(1), 3-15.
- Tran, D.T., Johnson, M., Fernandez, R., & Jones, S. (2010). A shared care model vs. a patient allocation model of nursing care delivery: comparing nursing staff satisfaction and stress outcome. *International Journal of Nursing Practice*, 16 (1), 148–158.
- Tumen, S., & Zeydanli, T. (2016). Social interactions in job satisfaction. *International Journal of Manpower*, 37(3), 426-455.
- Uslusoy, E., & Alpar, S. (2013). Developing scale for colleague solidarity among nurses in Turkey. *International Journal of Nursing Practice*, 19(1), 101-107.

# Investigation of Factors in selecting the Third-Party Logistics Providers for Online Sellers in Chonburi

Siwaporn Kunnapapdeelert<sup>1</sup>, Passarin Phalitnonkiat<sup>2</sup>, Patidta Nil-or<sup>3</sup>  
and Kritchanit Churkaew<sup>4</sup>

Logistics Management<sup>1,4</sup>  
Burapha University International College  
Chonburi 20131, Thailand  
Email: [siwapornk@go.buu.ac.th](mailto:siwapornk@go.buu.ac.th)<sup>1</sup>, [kun.valatee@gmail.com](mailto:kun.valatee@gmail.com)<sup>4</sup>  
Business Administration<sup>2,3</sup>  
Burapha University International College  
Chonburi 20131, Thailand  
Email: [passarin@go.buu.ac.th](mailto:passarin@go.buu.ac.th)<sup>2</sup>, [patidtapnl@gmail.com](mailto:patidtapnl@gmail.com)<sup>3</sup>

## Abstract

This study aimed to investigate the online sellers' experiences of logistics service selections in Chonburi. A paper-based survey was distributed by 400 surveys with 397 returned with completed answers. The questionnaire consisted of parts of sellers' information and online sellers' opinions toward influencing factors in selecting logistic providers. A study was conducted using EFA. The results presented into 5 observed constructs which were grouped namely: Operational service, Supportive service, Information channel, Brand image, and Cost of service. This could help the third logistics providers to develop their performances in order to serve online sellers in selecting specific logistics providers.

**Keywords:** Third party logistics (3PL); logistics service; selection; Exploratory Factors Analysis (EFA); E-commerce

## 1. Introduction

In last 10 years, online retailers have been widely developed and become the customers' preferences comparing to brick and mortar retailers. Electronic commerce (e-commerce) has gained a lot of attention for all age. People do not have go for visiting the store. They can just go to e-commerce website and order the product that they want online 24/7. Customers can search several e-commerce websites in a very short time to find the perfect price. One of the most important factors that drive e-commerce success is logistics platform. Customer experience is essential to help e-commerce grow. Recently, same-day/ next day delivery become an important online shopping trend. Customer are willing to pay more money for the faster and better service. Online retailers can provide consumers with the required logistics if they the cooperates with professional logistics companies. Logistics service especially last mile delivery service has a high influence on customer's shopping experiences. There are various factors that affect to logistics service quality such as communication service, delivery services, after-sale service, staff service, customer satisfaction, etc. The exploration of factors that influence on customer satisfaction can help third party logistics (3PL) providers to improve their service quality and enhance e-commerce business. This research was organized as follow. Literature review related to online shopping, factors that affected to logistics service quality, and factor analysis were described. Methodology of the research was mentioned. Results and discussions were presented in the next section. Lastly, Conclusions and recommendations were explained.

## 2. Research Objectives

The purpose of this work was to investigate the customers' experiences of logistics service selection.

### **3. Literature Review**

E-commerce is an online buying and selling process which is very important in our daily life. Customers can search for the product that they want by visiting more than five websites to buy the product that they want in a few minutes. Comparing to the traditional retail method, customers have to spend a whole day to shop for the product that they want. According to Statista (2019), retail e-commerce sales worldwide in 2019 amounted to 3.45 trillion US dollars and e-retail revenues are projected to grow to 4.88 trillion US dollars in 2021. Considering to retail e-commerce's regional market can be ranked as Asia, North America, Europe, Australia, Africa and Middle East, and South America, respectively. The highest proportion of e-commerce growth in the world are China, United States, France, Australia, and Russia, respectively. There are three main reasons that e-commerce moves beyond the western regions. The first reason is that the rapid of urbanization and technological advancements. Secondly, more than 85 percent of new middle-class growth residing in Asia Pacific. Lastly, China's e-commerce market is dramatically grown.

Online shopping provides wide variety of product and lower cost than the traditional shopping and selling. It is the faster method to expand and grow business worldwide. These imply that the growth of e-commerce has the potential to increase competition within retail markets to enhance consumer choice.

#### *Relevant factor for selecting third-party logistics provider (3PL)*

An efficient logistics is one of the most factor that make e-commerce to be successful. The customer experience can be enhanced by providing a good delivery service. A good third-party logistics provider (3PL) company can provide a competitive advantage to the organization by providing a good service for deliver the product to the customer. Selecting the best 3PL is a challenge task because there are various factors involved. Various researchers have been studied about criterion for 3PL selection as follows.

#### **Cost**

The most important factor for selecting third party logistics provider is cost. Cost in this case includes transportation cost (Ecer, 2018), operational cost, distribution cost, etc.

#### **Services**

All dimensions of services that is 3PL company provides to the customers include available services, specialized services, value-added services (Ghorabae et al., 2017), pre and post-sale services to the customer (Aguzzoul, 2014; Hwang and Shen, 2015), diversity of available service, flexibility of services, etc. The competitive situation enhances ability of all third-party logistics in various perspective. Customer oriented is another factor that affect to the selection of third-party logistics provider as a result third party logistics providers concern more about customer satisfaction. The customer-oriented logistics services are classified into three groups as customer-closeness, customer-accessibility, and customer flexibility (Giannikas et al., 2019). Customer-closeness is the feedback and information obtained from customers. Customer-accessibility can be explained as the monitoring and tracking system that allow customers to access information that fulfill their multiple requirements. Customer-flexibility is the quickly response to the change of customer needs. Logistics service innovation is considered as another important factor that affect performance of third-party logistics provider. This includes the development of new services, improvement of existing services and introduction of new services (Snyder et al., 2016; Witell et al., 2016; Chu et al., 2018)

#### **Delivery**

Delivery is criteria that represents ability of 3PL provider. It includes on time shipment, on time performance, transit time, delivery time, delivery speed, etc.

## Flexibility

It is the ability to adjust the company conditions based on the requirement of customers. Flexibility consists of numerous components such as flexibility of system, capacity for adapting to meet future requirement of the customer, responsiveness to service the request from the market or customers, ability to deal with the special requirement from the customer and quick responsiveness (Chorabae et al., 2017).

## Factor analysis

Factor analysis is normally applied for explaining numeral of measured variables with a smaller number of underlying factors so called latent variable (Henson and Robert, 2006). It can be divided into two steps such as factor extraction and factor rotation. Exploratory Factor Analysis (EFA) is statistical approach that help for decision making about uncleared factors. EFA requires several steps as data inspection techniques, factor analytics, factor retention, factor rotation, and factor loading cutoff.

It is generally suggested that the suitable sample size for factor analysis should not be more than or equal to 100 (Hair et al., 1998). Comrey and Lee (2013) guided that sample size of 100 as poor, 200 as fair, 300 as good, 500 as very good, and 1,000 or more as excellent. A correlation matrix is normally use for determining the relationships between variables. The recommended value of correlation matrix should be more than 0.3. Loading value of 0.3 indicates that the considering factors accounts for thirty percent relationship within the data. Data inspection Techniques for EFA are classified as Kaiser-Meyer-Olkin (KMO) (Dziuban & Shirkey, 1974; Kaiser, 1970) and Bartlett's test of sphericity (Bartlett, 1950; Dziuban & Shirkey, 1974). The next thing that must be tested before is sampling adequacy. KMO value indicates sample adequacy while Bartlett's test of sphericity is used for indicating the item correlation matrix is not an identity matrix. KMO correlation more than 0.7 is considered to be adequate for analyzing the EFA as presented in Table 1. In case of Bartlett's test of sphericity, if the value is significant, the results indicate that the data are not an identity matrix and appropriate for EFA.

**Table 1 The metrics for representing KMO's correlation level**

<b>KMO correlation</b>	<b>Sample Adequacy</b>
0.00 – 0.50	Unacceptable
0.50 - 0.60	Miserable
0.60 – 0.70	Mediocre
0.70 – 0.80	Middling
0.80 – 0.90	Meritorious
0.90 – 1.00	Marvelous

Researchers have been proposed several approaches for factor extraction. The most commonly used methods to extract factors are principal component analysis (PCA) and principal axis factoring (PAF). However, PCA is used as a default factor extraction method in SPSS (Costello and Osborne, 2005). The next phase is to decide how many constructs should be retained for rotation. Several factor retentions such as cumulative percent of variance extracted, Kaiser's criteria, Scree test, and Parallel analysis are developed. In case of factor rotation method, it composes of two main types: orthogonal and oblique. Orthogonal is classified as

Varimax, Quartimax, and Equimax. Obliques is classified into Direct Oblimin and Promax. After rotation technique is selected, number of factors within a set of variables and factor analysis are then performed to determine the extent that each variable represents each emergent factor through loading values.

#### 4. Research Methodology

The study was conducted and carefully taken in Chonburi to ensure that 400 respondents were online sellers who had experiences in using the third-party logistics providers as routine tasks to deliver the goods to the customers. The 400 paper questionnaires were distributed at the third-party logistics provider channels, for example, Thai post, Kerry Express, Nim Express, DHL, SCG Express, Lineman, FedEx, Alpha Fast, Flash Express, and local delivery vans, while 397 surveys were returned with a completion (a response rate of 99.25 percent).

Data collection took place from January to March 2019. The respondents completed a 15-minute survey, with (1) part of personal information (gender, age, occupation, and income per month), (2) personal online business information (duration, types of business, frequency of using the third party logistic providers per month, frequent period of using service, delivery destination, and good value), and (3) online sellers' opinions toward influencing factors in selecting specific the third party logistic providers.

Responses on the scales on opinions of the respondents toward the importance of each factor affecting choosing the third-party logistic providers were recorded on a 5-point Likert scale ranging from "totally important" to "totally not important" where "totally important" = 5 and "totally not important" = 1. This part was analyzed by using Exploratory Factor Analysis (EFA) to investigate and identify which factors could be common factor that presented the relationship among those factors, and to assess which factors were robust and which were to be eliminated because of poor performing. Questions on the first part of demographic profile was shown in Table 2.

**Table 2 Sample description (N=397)**

Variables	Description	N (397)	Percent
Gender	Male	27	6.80
	Female	370	93.20
Age	15-20	167	42.07
	21-30	198	49.88
	31-40	28	7.05
	41-50	4	1.00
Occupation	Student	268	67.51
	Governmental officer	17	4.28
	Employee	50	12.59

<b>Variables</b>	<b>Description</b>	<b>N (397)</b>	<b>Percent</b>
	Business owner	59	14.86
	Others	3	0.76
Income/month	Lower than 10,000	214	53.91
	10,001-20,000	92	23.17
	20,001-30,000	54	13.60
	30,001-40,000	15	3.78
	More than 40,000	22	5.54
Length of being online seller	Less than 1 year	177	44.58
	1-5 years	205	51.64
	More than 5 years	15	3.78
Type of product sold	Computer accessories	3	0.76
	Fashion / Clothes	113	28.46
	Medical / Healthcare	29	7.30
	Tourism	3	0.76
	Game / Entertainment	227	57.18
	Complementary food	16	4.03
	Others	6	1.51
Regularity of online selling	Less than 10 times/month	119	29.98
	11-20 times/month	106	26.70
	21-30 times/month	17	4.28
	Everyday	155	39.04

## 5. Results



The quantitative survey consisted of 40 items conducted to assess what factors influenced online sellers in selecting the third logistics providers. Exploratory Factor Analysis (EFA) was applied to this study. One of the poor-performing items was removed from original 40 items, and the remaining of 39 items were analyzed and regrouped into 5 constructs.

*Exploratory Factor Extraction*

The factor load was the correlation coefficient between individual variables and common factor. After analyzing, principle component factors were obtained by merging variables which has relatively high factor loading. Table 3 presented rotated component matrix and the extracted 4 common factors.

**Table 3 Rotated component matrix and the extracted 4 common factors and composite reliability of regrouped constructs**

No.	Variables Items	Factor load matrix					Composite reliability	Extracted common factors
		1	2	3	4	5		
10	Staff's proficiency of knowing the delivery destination	0.837					0.969	Factor 1: Operational service
18	Notification when having problems	0.799						
11	Product safety	0.792						
12	Product completion	0.775						
7	On-time delivery	0.767						
35	Delivery time estimation	0.750						
6	Speed of delivery	0.748						
30	Staff's carefulness	0.720						
13	Service responsibility (from product damages)	0.714						
29	Staff's advisory (steps, other details)	0.694						
23	Information provided	0.641						
34	Speed of problem solving	0.622						
9	Delivery to customer's hands	0.613						
26	Staff's service standard	0.600						
24	Easy understanding of service information	0.560						
22	Packing	0.559						
8	Accuracy of delivery	0.530						
36	Office hours	0.521						
14	Some bad news of service brand	0.469						

No.	Variables Items	Factor load matrix					Composite reliability	Extracted common factors
		1	2	3	4	5		
17	Product tracking		0.746				0.918	Factor 2: Supportive service
19	Place of a service provider		0.743					
20	Steps of service		0.706					
21	After-sale service		0.668					
16	Comfortability in tracking product		0.660					
15	Corporate social responsibility of a service provider		0.595					
27	Staff's ability in answering queries		0.557					
25	Benefit of information provided to a customer		0.550				0.867	Factor 3: Information channel
37	Availability of service counters at popular spots (i.e. B2S store, book shop)			0.682				
39	Delivery date choices			0.673				
33	Feedback/complaint channels			0.660				
38	Availability of checking time/channels for a customer before paying			0.615				
28	Polite/service- minded staff			0.531				
40	Availability of service counters			0.498				
4	Cash on delivery				0.781	0.740	Factor 4: Brand image	
3	Service of receiving product at home				0.743			
32	Numbers of staff in a branch				0.604			
31	Staff's proper dressing				0.508			
1	Delivery cost				0.756	0.755	Factor 5: Cost of service	
2	Other expenses				0.728			

## 6. Discussion and Conclusion

After modified measurement model has been used, then received regrouped-variable constructs. The assessment of factor loading and composite reliability of each regrouped construct were presented as greater than 0.7. The items with a factor loading of less than 0.45 were considered as weak index items of common factors. Table 3 illustrated common factors were assigned a label to show potential attributes of individual factor and the common. There were 5 of new constructs which affected how online sellers choosing the third logistics providers for their careers as following;

*Factor 1 (Operational service)*

Currently, contemporary businesses have removed side activities by trying to use specialized companies, for example, the third-party logistics providers in Thailand. Hence, most of the successful service providers simplify actively their operations. The emphasis was on the resources and efforts on product delivery in order to help the online business sellers with their fulfillment in sending, supporting and customer caring, and etc. Although logistics needed great resource attention, many of them were lacking of expertise in the area within the company. Several logistics providers in Thailand now still require an efficiency and standard while interacting with online business owners. To illustrate, the expertise of staff in taking care customers, accuracy, safety and speed were required and very important, which customers received from service providers.

*Factor 2 (Supportive service):*

The benefits or offerings given by the third-party logistics providers may include product tracking, place of service, process and after-sale service, ability of staff in communication and other benefited provided. Some activities might connect to partnership such as material tracking. It is critical to manage partnership with the third-party logistics providers. The value proposition by the providers were their understanding and integrated knowledge of supply chain management, not only shipping, but supportive services also.

*Factor 3 (Information channel):*

An effect of information of recipients' perception was not only the content, but the channels that the information was transmitted. The service solution allowed the clients to reach more information through the networks. Sasananan, Narkhede, Gardas, and Raut (2016) claimed that 'information sharing and mutual trust' was in the top-10 criteria ranking that explained the identified selection criteria. This may increase the compatibility with the users and bring better relationships among providers and clients.

*Factor 4 (Brand image):*

Image of service brand can hold the clients of perceiving service attribute and quality. Such perceptions could impact customer loyalty and buying intention to rebuy on the service. The development of brand image can create a great challenge to online sellers in choosing the third-party logistics providers and assessing those providers. From findings, the presentation of service such as a service of cash on delivery, home delivery service, or even the appearances of staff also were mentioned and grouped.

*Factor 5 (Cost of service):*

Many studies, for example Narkhede, Raut, Gardas, Luong, and Jha (2017) found that quality management, information technology capacity, the flexibility of operation and etc. were determined as identified criteria playing very important role in the third-party logistics providers selections, however, one of key attributes was service cost. According to this study,

there were 2 main criteria, which were delivery cost and other expenses such as package cost, insurance cost, and so on.

The findings from this paper was presenting evaluation decision perceived by online sellers who have using services from the third-party logistics providers in Chonburi, Thailand. According to this study, there were several criteria in selecting the logistics providers, and those criteria were classified by applying Exploratory Factor Analysis (EFA) into 5 categories namely: Operational service, Supportive service, Information channel, Brand image, and Cost of service. Each of these constructs presented its own characters of items. Therefore, the results can be a guidance for logistics service providers to develop based on how clients (online sellers) perception, which could make their systems and policy more practical. Although the results were very useful to decision-makers for logistics providers, this article also had some limitations. Limitation of this work is the study does not emphasize to only one business. The suggestion for further study, tested variables should be examined how the relationships between each construct, and how they impact clients' decision making and buying intentions in selecting specific logistics providers.

## 7. References

Statista (2019). Retail e-commerce sales worldwide from 2014 to 2021. Retrieved from <https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/>

Aguezoul, A. (2014). Third-party logistics selection problem: A literature review on criteria and methods. *Omega*, 49, 69-78.

Bartlett, M. S. (1950). Tests of significance in factor analysis. *British Journal of statistical psychology*, 3(2), 77-85.

Chu, Z., Feng, B., & Lai, F. (2018). Logistics service innovation by third party logistics providers in China: Aligning guanxi and organizational structure. *Transportation Research Part E: Logistics and Transportation Review*, 118, 291-307.

Comrey, A. L., & Lee, H. B. (2013). *A first course in factor analysis*. Psychology Press

Costello, A. B., & Osborne, J. (2005). Practical assessment, research & evaluation. *The Journal of Consumer Marketing*, 10(7), 1-9.

Dziuban, C. D., & Shirkey, E. C. (1974). When is a correlation matrix appropriate for factor analysis? Some decision rules. *Psychological bulletin*, 81(6), 358.

Ecer, F. (2018). Third-party logistics (3PLs) provider selection via Fuzzy AHP and EDAS integrated model. *Technological and Economic Development of Economy*, 24(2), 615-634.

Giannikas, V., McFarlane, D., & Strachan, J. (2019). Towards the deployment of customer orientation: A case study in third-party logistics. *Computers in Industry*, 104, 75-87.

Hair, J., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis*. New Jersey: Prentice-Hall.

Henson, R. K., & Roberts, J. K. (2006). Use of exploratory factor analysis in published research: Common errors and some comment on improved practice. *Educational and Psychological measurement*, 66(3), 393-416.

Hwang, B. N., & Shen, Y. C. (2015). Decision making for third party logistics supplier selection in semiconductor manufacturing industry: a nonadditive fuzzy integral approach. *Mathematical Problems in Engineering*, 2015.

Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and psychological measurement*, 20(1), 141-151.

Keshavarz Ghorabae, M., Amiri, M., Zavadskas, E. K., & Antucheviciene, J. (2017). Assessment of third-party logistics providers using a CRITIC–WASPAS approach with interval type-2 fuzzy sets. *Transport*, 32(1), 66–78.

Narkhede, B. E., Raut, R., Gardas, B., Luong, H. T., & Jha, M. (2017). Selection and evaluation of third-party logistics service provider (3PLSP) by using an interpretive ranking process (IRP). *Benchmarking: An International Journal*, 24(6), 1597-1648.

Sasananan, M., Narkhede, B. E., Gardas, B. B., & Raut, R. D. (2016). Selection of third party logistics service provider using a multi-criteria decision making approach for Indian cement manufacturing industries. *Thammasat International Journal of Sciences and Technology*, 21(3), 70-81.

Snyder, H., Witell, L., Gustafsson, A., Fombelle, P., & Kristensson, P. (2016). Identifying categories of service innovation: A review and synthesis of the literature. *Journal of Business Research*, 69(7), 2401-2408.

Witell, L., Snyder, H., Gustafsson, A., Fombelle, P., & Kristensson, P. (2016). Defining service innovation: A review and synthesis. *Journal of Business Research*, 69(8), 2863-2872.

# Facebook Marketplace: The relationships between the behavioral intentions of buyer and seller in Thailand

Nathatenee Gebsobut<sup>1</sup>, Lakkana Hengboriboon<sup>2</sup>, Kachane Akkabutr<sup>3</sup>,  
Sahaparb Sertphol<sup>3</sup>, Chaithawat Uttarak<sup>3</sup>, Jintana Rattanakhemakorn<sup>4</sup>,  
and Kevin P. Jones<sup>5</sup>

International College  
Khon Kaen University  
Khon Kaen 40002, Thailand  
Email: nathge@kku.ac.th<sup>1</sup>  
Email: lakkhe@kku.ac.th<sup>2</sup>  
Email: kkuic@kku.ac.th<sup>3</sup>  
Email: jeabjin@yahoo.com<sup>4</sup>  
Email: kevinjo@kku.ac.th<sup>5</sup>

## Abstract

Currently, online shopping has become a common marketplace in the world by enabling customers to seek out products easier. Facebook Marketplace is one of many online shopping sites, which allows customers to participate in C2C marketing. This study aimed to investigate the factors that affect customer purchase intention, and also examine the relationships between the behavioral intentions of buyer and seller on Facebook Marketplace in Thailand by using TAM as a research tool to increase loyal customers and predict their buying behavior. The population included 240 users who were randomly chosen from buy and sell groups on Facebook Marketplace. Online questionnaires were used for collection of data. The results show that Facebook Marketplace should be maintained because buyers and sellers feel positive in using its system. However, customers revealed that they would feel less risky if the sellers provide information in more details.

**Keywords:** Facebook Marketplace; Intention to Purchase; TAM; Online Shopping

## 1. Introduction

E-Commerce stands for Electronic Commerce that the intermediary buying and selling through the internet. Customer to Customer (C2C), Business to Customer (B2C) incur on customer satisfaction and can allow the options in the future. The loyalty of C2C and B2C platforms are different because the C2C platform depends on the relationship between the buyer and seller whereas the B2C vender relies on brand itself (Chen et al., 2009). This research concentrates specifically on F-commerce, a new platform online that was created from upon the arrival of Facebook and Web 2.0 (Liébana-Cabanillas & Alonso-Dos-Santos, 2017). That means Facebook may be used as a marketing tool for the present (Chen et al., 2014). Keeping the online buyer is not easy because they are ready to move to other websites that give them more benefits. This is the reason why online customer base is nearly lost more than traditional customer (Eid & Al-Anazi, 2008). The Website was developed a long time ago. Recently, PC clients have utilized the Web to share information, create teams, and trade messages. An assortment of individuals has gone along with at least one of the Web and portable businesses that have developed to serve customer requirements for correspondence, data, and stimulation. Facebook Marketplace is a convenient destination to discover, buy and sell items with people in their community. The

goal of this research is to study the intention of buyer to use Facebook marketplace by using the Technology Acceptance Model (TAM) (Davis et al., 1989).

## 2. Research Objectives

The purpose of this study are as follow;

- (1) to study the factors that impact the intention of buyer on Facebook Marketplace.
- (2) to examine the relationships of “Perceived Usefulness”, “Perceived Ease of Use”, “Attitude Toward Behavior”, “Behavioral Intentions”, “Trust”, “Perceived Risk”, “Complexity”, “Information Anxiety” and impact on the intention of buyer on Facebook Marketplace.

## 3. Literature Review

Facebook users created a cultural, economic, and social development. The importance of the web social media website to journalism, business, communication, and social relationships is tough to mislead, the users across the globe devoting incalculable hours to the location of associated scale of Facebook turning into a more and more vital method of getting data not solely regarding friends and family however, conjointly regarding world events. Whether or not it's sensible or dangerous it's still debatable. On the far side of the company's own worth, however, Facebook additionally has a complete interface designed for businesses, complete with business profile pages associated by level of an advertising system that enables the marketers to focus on their ads supported the wealth of knowledge user to offer regarding themselves on the location.

This research tends to explore prognostication worth of useful factors in SNS. Website options are available to assist users in encouraging human contact within the SNS context (Xu et al., 2012). This section mirrors the relationship among the key variables in the theory of Technology Acceptance Model (TAM). According to past studies, this research has found that there are many factors that have an impact on purchasing intentions, such as TAM which includes: Perceived Ease of Use, Perceived Usefulness and Behavior Intention.

Perceived Usefulness (PU) is the level of users who believe that using the technology will improve their performance and almost researcher aggressed together that PU have a huge influence on TAM. Consumers are more likely to shop on the internet because they receive more benefits. Perceived Ease of Use (PEOU) is the level of users who believe that using the technology that must be easy to use. Prior works found that PEOU appear more usefulness (Davis, 1989; McKechnie et al., 2006; Rigopoulos et al., 2008). Some research also found BI affected by PU (Davis, 1993; Pikkarainen et al., 2004; Rigopoulos et al., 2008; Parveen & Sulaiman, 2008). Attitude Toward Behavior (ATB) is an attitude of user towards the technology which leads to behavior on that technology. ATB was influenced by PU and PEOU (Davis, 1989; Parveen & Sulaiman, 2008). Behavioral Intention (BI) is the character of the customer that effect to technology by PU and ATB. Rigopoulos et al., (2008) found that PU and PEOU effect BI and BI directly affect use.

In the internet transaction, trust (T) is more important than normal transaction because it is perhaps the uncertainty of the surrounding factors can lead to negative results while buying, causing distrust to be the main barrier to the internet transactions (Gefen et al., 2003).

According to normal shopping on the internet, consumers frequently face with some degree of risk. In basis, they are dealing with uncertain future events. During an uncertain event setting, consumer trust will come to involve the solution of risk objection (Luhmann, 2000). In particular, trust is the crucial factor in perceived risk turn out negatively in situation of action (Luhmann, 2000). Yet, the e-vendor who receives trust from consumers will achieve their success. Trust builds the credibility of the seller to be promised (Ganesan, 1994). It arranges the scale to assure that e-vendor conducts good part of the deal, and promised the best care. These are the feasibility of consumers to communicate in order to obtain and expect benefits from the platform. On the other hand, dealing with e-vendor who cannot trustable will reduce usefulness.

The outcome of other relevant researches are in the same direction (Chircu & Kauffman, 2000; Pavlou, 2003; Wen et al., 2011) also found that trust was influenced from PEOU and then passes to PU on their study researches about online repurchase.

In term of Information Anxiety (IA), ALraja (2015) reported that while computer users practicing with their computer are getting more anxiety especially when they use it for the first time. It is accepted that information on the internet has an attribute problem to deal with. Sometimes it's hard to know when the last update was or it is reliable or not (Brennan, 2007). Hence, consumers' potential to consider in quality of information to help making decision in buying product. High information quality is needed when decision maker has made (Miranda & Saunders, 2003). To reduce perceived uncertainty and perceived risk such as electronic transaction is using a highly and quality information. Consumers are getting anxiety when information seems like to be a low quality that cause to conduct concentrate in Facebook marketplace. Users tend to realize less risk when made themselves concentrated. Thus, this research argues that information anxiety and perceived risk are related negatively in Facebook marketplace side.

Berlyne (1960) define the word complexity (C) as "the amount of variety or diversity in a stimulus pattern". Hoffmann et al. (2011) mentioned that subjective and objective can inspect complexity of website. Objective complexity denoted norms of diverge and observable constituent of website (Guo & Hall, 2009). On the other hand, subjective complexity denoted that how much amount of scale in which users realize to complexity of website. The number of links and images, information quantity, and website extent is one of the various aspects on complexity (Geissler et al., 2006). This research argues that complexity of Facebook marketplace and PEOU is positively related in the term of Facebook marketplace.

Mitchell (1999) urged that customer's behavior were robust clarify perceived risk (PR) as a result of consumers are additional typically stimulated to escape failure than maximize utility of buying. Perceive risk definition was modified. Perceived risk was prior consider in product quality and trick (Wu & Wang, 2005). Perceived risk was described an online transaction has a negative impact to customer to consider the possibility of uncertainty (Kim et al., 2007).

External factor of risk negatively affects to trust (Corbitt et al., 2003; Corritore et al., 2003; Pavlou, 2003; Teo & Liu, 2007). And in a separate study of Grabner-Kräuter and Kaluscha (2003) found that customers seek the way to reduce uncertainty and complexity of an online transactions.

Thus, the following purpose of this work is to know that,

H (1): Perceived Ease of Use positively affects the Perceived Usefulness.

H (2): Perceived Usefulness positively affects the Attitude Toward Behavior.

H (3): Attitude toward Behavior positively affects the Behavioral Intention to Purchase.

H (4): Trust negatively affects the consumer's Perceived Risk.

H (5): Trust positively affects the consumer's Perceived Usefulness.

H (6): Information Anxiety negatively affects the consumer's Perceived Risk.

H (7): Website complexity positively affects the Perceived Ease of Use.

H (8): Perceived Risk negatively effects on Behavioral Intention.



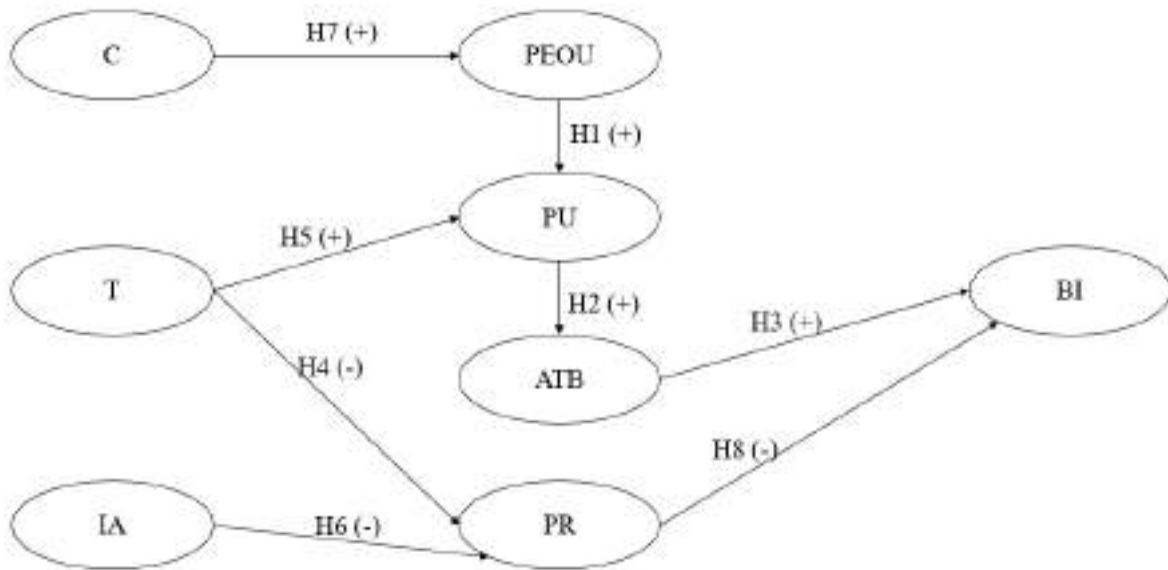


Figure 1: Research model.

#### 4. Research Methodology

This research data was collected 240 samples who have ever used Facebook marketplace. Collecting method of this are using Facebook buy and sell groups via online questionnaire by Google forms to reach the majority of buyer and question it directly to the seller in Facebook marketplace. This collecting method is not only faster than normal which is do not wait its back so that mean, the results are accessible or ready to analyze, also reduce human error from the questionnaire that cannot skip without any single question. With the study in online Facebook marketplace, this method will lead to the real users (Nava et al., 2013; Kozinets, 2002). Hair et al., (2018) has mentioned 10 responders per question for analyzing as the least, the passable way of determination is 1:10 ratio, so this research has 17 questions and according to Hair et al., (2018), the sample of this research has to be at least 170 samples. According to determine reliability in assessing the level of consistency of variables in this questionnaire by Cronbach's alpha on pilot testing in computing with a program, SPSS Statistic 23 which if it is > 0.70 that means it is proven that this questionnaire is reliable to use (Hair et al., 2018). In case to assessing validity, this research considered the result by using AMOS, Maximum Likelihood Estimation to recheck the answer after run of numbers on SPSS and then analyze the data.

#### 5. Results

##### The demographic composition of the samples

Based on 240 responders who use Facebook Marketplace in the survey had the following characteristics: The proportion of Male (64.2%) was higher than that of Female (35.8%). The number of respondents aged 20-29 is (44.2%). Under 20 (31.3%), 30-39 (12.1%), 40-49 (11.7%), and over 50 (0.8%). Education range Bachelor Degree (30.4%), High school and Undergraduate (25.8%), Master Degree (9.2%), Diploma (4.6%), Doctoral Degree (3.8%) and other which note: Primary school and lower than that (0.4%). The occupations were Students (58.8%), Civil Servants (12.1%), Office workers and Unemployed (8.8%), Self-employed (5.0%), Service (2.9%), Home workers (1.7%), Professionals (1.3%), and Technicians (0.8%). The income of responders was Less than 10,000 Baht (44.6%), 10,000 – 19,999 Baht (22.1%), 20,000 – 29,999 Baht (12.5%), More than 50,000 Baht (8.8%), 30,000 – 39,999 Baht (7.5%) and 40,000 – 49,999 Baht (4.6%).

##### Table (1) Results of measurement model analysis.

Construct	Items	Loading	Cronbach's Alpha	Composite reliability	AVE
PEOU	PEOU1	0.841	0.801	0.806	0.674
	PEOU2	0.801			
PU	PU1	0.863	0.847	0.849	0.738
	PU2	0.855			
ATB	ATB1	0.854	0.857	0.860	0.755
	ATB2	0.883			
T	T1	0.890	0.883	0.887	0.800
	T2	0.89			
BI	BI1	0.827	0.830	0.833	0.715
	BI2	0.863			
PR	PR1	0.865	0.875	0.882	0.790
	PR2	0.911			
C	C1	0.944	0.905	0.909	0.833
	C2	0.880			
IA	IA1	0.833	0.907	0.912	0.776
	IA2	0.895			
	IA3	0.912			

**Note:** PEOU = Perceived Ease of Use; PU = Perceived Usefulness; ATB = Attitude towards Use; BI = Behavioral Intention; T = Trusts; PR = Perceived risk; C = Complexity and IA = Information Anxiety

After checking the reliability and validity, the Cronbach's alpha value range was between 0.801 to 0.907 link with valid threshold which is 0.7 (Amaro & Duarte, 2015). All composite reliability values are higher than standard suggestion 0.6 (Bagozzi & Yi, 1988) which is 0.806 to 0.912. Meaning that all results stay in a good level position. About the average variance extracted or AVE that F. Hair Jr et al. (2014) said that there have to be higher than 0.7, and (Fornell & Larcker, 1981) were suggested a threshold should be 0.5 so that this research got 0.674 to 0.833. Chin et al., (1997) said the great correlation factor should be equal or higher than 0.8 and less than the square roots of AVE(s).

**Table (2) Correlation between the constructs and descriptive statistics.**

Construct	PEOU	PU	ATB	T	BI	PR	C	IA
PEOU	0.674							

PU	0.596	0.738						
ATB	0.454	0.588	0.755					
T	0.282	0.288	0.329	0.797				
BI	0.490	0.638	0.516	0.437	0.714			
PR	0.119	0.159	0.132	0.301	0.272	0.789		
C	0.082	0.115	0.130	0.362	0.251	0.370	0.832	
IA	0.023	0.059	0.028	0.163	0.098	0.312	0.548	0.776

**Note:** PEOU = Perceived Ease of Use; PU = Perceived Usefulness; ATB = Attitude towards Use; BI = Behavioral Intention; T = Trusts; PR = Perceived risk; C = Complexity and IA = Information Anxiety

**Table (3) General theoretical model-fit indices.**

Index	Threshold	Result
CMIN/DF	< 3	2.796
CFI	> 0.9	0.933
NFI	> 0.9	0.900
RMSEA	< 0.10	0.087
(S) RMR	< 0.08	0.068

**Table (4) Results of path coefficients and hypothesis testing**

Path	Path coefficient	T-value	Hypothesis	Results
PEOU → PU	0.673	9.278***	H (1)	Supported
PU → ATB	0.804	11.577***	H (2)	Supported
ATB → BI	0.794	9.192***	H (3)	Supported

T → PR	-0.399	-6.427***	H (4)	Supported
T → PU	0.169	4.802***	H (5)	Supported
IA → PR	-0.430	-6.396***	H (6)	Supported
C → PEOU	0.182	4.029***	H (7)	Supported
PR → BI	-0.231	-5.307***	H (8)	Supported

**Note:** PEOU = Perceived Ease of Use; PU = Perceived Usefulness; ATB = Attitude towards Use; BI = Behavioral Intention; T = Trusts; PR = Perceived risk; C = Complexity and IA = Information Anxiety

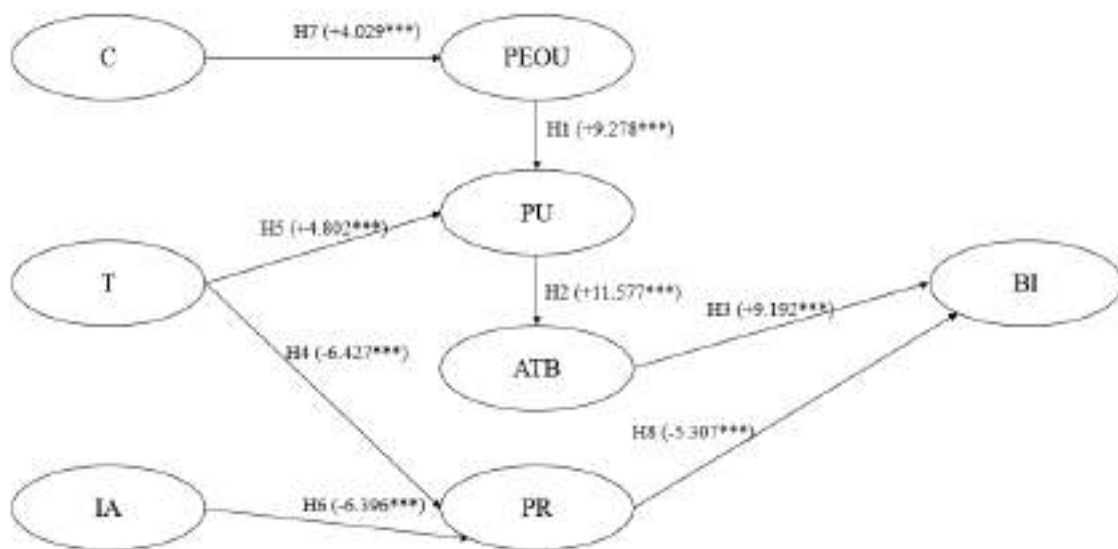


Figure 1: Research results.

This result of path coefficient and hypothesis testing are supported with a good fit with all the variables (Bagozzi & Yi, 1988). ATB ( $\beta = 0.794$ ,  $t = 9.192$ ,  $p < 0.001$ ) and PR ( $\beta = -0.231$ ,  $t = -5.307$ ,  $p < 0.001$ ) were significantly related to BI, which supported the hypotheses H (3) and H (8). T ( $\beta = -0.399$ ,  $t = -6.427$ ,  $p < 0.001$ ) and IA ( $\beta = -0.430$ ,  $t = -6.396$ ,  $p < 0.001$ ) were significantly related to the PR, which supported the hypotheses H (5) and H (6). T ( $\beta = 0.169$ ,  $t = 4.802$ ,  $p < 0.001$ ) and PEOU ( $\beta = 0.673$ ,  $t = 9.278$ ,  $p < 0.001$ ) were significantly related to the PU, which supported the hypotheses H (4) and H (1). C ( $\beta = 0.182$ ,  $t = 4.029$ ,  $p < 0.001$ ) was significantly related to the PEOU, which supported the hypotheses H (7). PU ( $\beta = 0.804$ ,  $t = 11.577$ ,  $p < 0.001$ ) was significantly related to the ATB, which supported the hypotheses H (2).

## 6. Discussion and Conclusion

This study aimed to investigate the relationships between the behavioral intentions of buyers and sellers who use Facebook Marketplace. The results suggest that Facebook Marketplace should provide the platform to sustain its complexity. The user(s) feel that it will be easier for

them with more functional in the platform even though the system is complex. The seller should provide information to ensure that the customer feel less perceived risk. If the customers perceived less risk of the Facebook marketplace, they will want to use the system. Perceived Ease of Use and Perceived Usefulness should be moving forward for stability or built it more if possible. Because it is found that there are good relationships that directly involve with Attitude Toward Behavioral and affect to Behavioral Intention to Purchase which will possibly increase profitability (Eid & Al-Anazi, 2008; Reichheld & Scheffer, 2000).

In the future research, most of this study uses TAM theory to study Facebook Marketplace usage, but in fact there are other theories that might be used to learn about them. So, this study can be applied with other theories to discover something new because it focuses on the value of the variables only. This is why the future researchers might be interested in doing further study.

Limitation of this research is the restricted sampling setting and using small sample size may bias the result. This research study has only applied to Thai people. Consequently, the user(s) may behave the same or different from the other countries. Additionally, data were collected via online questionnaires, therefore it is recommended that future research might collect data from offline sources for comparison.

## 8. References

- ALraja, M. N. (2015). User Acceptance of Information Technology: A Field Study of an E-Mail System Adoption from the Individual Students' Perspective. *Mediterranean Journal of Social Sciences*, 6(6 S1), 19.
- Amaro, S., & Duarte, P. (2015). An integrative model of consumers' intentions to purchase travel online. *Tourism management*, 46, 64-79.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, 16(1), 74-94.
- Berlyne, D.E., (1960). *Conflict, arousal, and curiosity*. McGraw-Hill Book Company, New York, NY, US.
- Brennan, L. L. (Ed.). (2007). Computer-Mediated Relationships and Trust: Managerial and Organizational Effects: *Managerial and Organizational Effects*. IGI Global.
- Chen, H., Papazafeiropoulou, A., Chen, T. K., Duan, Y., & Liu, H. W. (2014). Exploring the commercial value of social networks: Enhancing consumers' brand experience through Facebook pages. *Journal of Enterprise Information Management*, 27(5), 576-598.
- Chen, J., Zhang, C., & Xu, Y. (2009). The role of mutual trust in building members' loyalty to a C2C platform provider. *International Journal of Electronic Commerce*, 14(1), 147-171.
- Chin, W. W., Gopal, A., & Salisbury, W. D. (1997). Advancing the theory of adaptive structuration: The development of a scale to measure faithfulness of appropriation. *Information systems research*, 8(4), 342-367.
- Chircu, A. M., & Kauffman, R. J. (2000). Reintermediation strategies in business-to-business electronic commerce. *International Journal of Electronic Commerce*, 4(4), 7-42.
- Corbitt, B. J., Thanasankit, T., & Yi, H. (2003). Trust and e-commerce: a study of consumer perceptions. *Electronic commerce research and applications*, 2(3), 203-215.
- Corritore, C. L., Kracher, B., & Wiedenbeck, S. (2003). On-line trust: concepts, evolving themes, a model. *International journal of human-computer studies*, 58(6), 737-758.
- Davis, F. D. (1993). User acceptance of information technology: system characteristics, user perceptions and behavioral impacts. *International journal of man-machine studies*, 38(3), 475-487.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.

- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science*, 35(8), 982-1003.
- Eid, M., & Al-Anazi, F. U. (2008). Factors influencing Saudi consumers loyalty toward B2C E-commerce. *AMCIS 2008 Proceedings*, 405.
- F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106-121.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
- Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of marketing*, 58(2), 1-19.
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: an integrated model. *MIS quarterly*, 27(1), 51-90.
- Geissler, G. L., Zinkhan, G. M., & Watson, R. T. (2006). The influence of home page complexity on consumer attention, attitudes, and purchase intent. *Journal of Advertising*, 35(2), 69-80.
- Grabner-Kräuter, S., & Kaluscha, E. A. (2003). Empirical research in on-line trust: a review and critical assessment. *International journal of human-computer studies*, 58(6), 783-812.
- Guo, Y. M., & Hall, D. (2009). Website complexity: Objective versus subjective measures. *MWAIS 2009 Proceedings*, 28.
- Hair, J.F., Babin, B.J., Anderson, R.E., Black W.C, (2018). *Multivariate Data Analysis*. Cengage Learning EMEA.
- Hoffmann, S., Schwarz, U., & Mueller, S. (2011). The ambivalent effects of website complexity. *International Journal of Internet Marketing and Advertising*, 6(4), 413-433.
- Kim, H. W., Chan, H. C., & Gupta, S. (2007). Value-based adoption of mobile internet: an empirical investigation. *Decision support systems*, 43(1), 111-126.
- Kozinets, R. V. (2002). The field behind the screen: Using netnography for marketing research in online communities. *Journal of marketing research*, 39(1), 61-72.
- Liébana-Cabanillas, F., & Alonso-Dos-Santos, M. (2017). Factors that determine the adoption of Facebook commerce: The moderating effect of age. *Journal of Engineering and Technology Management*, 44, 1-18.
- Luhmann, N. (2000). Familiarity, confidence, trust: Problems and alternatives. *Trust: Making and breaking cooperative relations*, 6, 94-107.
- McKechnie, S., Winklhofer, H., & Ennew, C. (2006). Applying the technology acceptance model to the online retailing of financial services. *International Journal of Retail & Distribution Management*, 34(4/5), 388-410.
- Miranda, S. M., & Saunders, C. S. (2003). The social construction of meaning: An alternative perspective on information sharing. *Information systems research*, 14(1), 87-106.
- Mitchell, V. W. (1999). Consumer perceived risk: conceptualisations and models. *European Journal of marketing*, 33(1/2), 163-195.
- Nava, M., Blake, A., MacRury, I., & Richards, B. (2013). *Buy this book: Studies in advertising and consumption*. Routledge.
- Parveen, F., & Sulaiman, A. (2008). Technology complexity, personal innovativeness and intention to use wireless internet using mobile devices in Malaysia. *International Review of Business Research Papers*, 4(5), 1-10.
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International journal of electronic commerce*, 7(3), 101-134.
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahnla, S. (2004). Consumer acceptance of online banking: an extension of the technology acceptance model. *Internet research*, 14(3), 224-235.

- Reichheld, F. F., & Scheffer, P. (2000). E-loyalty: your secret weapon on the web. *Harvard business review*, 78(4), 105-113.
- Rigopoulos, G., Psarras, J., & Askounis, D. T. (2008). A TAM model to evaluate user's attitude towards adoption of decision support systems. *Journal of Applied Sciences*, 8(5), 899-902.
- Teo, T. S., & Liu, J. (2007). Consumer trust in e-commerce in the United States, Singapore and China. *Omega*, 35(1), 22-38.
- Wen, C., Prybutok, V. R., & Xu, C. (2011). An integrated model for customer online repurchase intention. *Journal of Computer Information Systems*, 52(1), 14-23.
- Wu, J. H., & Wang, S. C. (2005). What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. *Information & management*, 42(5), 719-729.
- Xu, C., Ryan, S., Prybutok, V., & Wen, C. (2012). It is not for fun: An examination of social network site usage. *Information & Management*, 49(5), 210-217

# “Monitoring income trends in mid-size Thai bank” –Under unstable political period

**Sudip Debkumar Chatterji**

Business Administration Program  
Burapha University International College  
Chonburi 20131, Thailand  
Email: [sudip@go.buu.ac.th](mailto:sudip@go.buu.ac.th)

## **Abstract**

This paper studies the income stream variation of a mid-size Thai bank using certain financial tools during political ('lull') period under junta government. The performance compared with various economic indicators and monetary policy reports and news articles to correlate the indicators correctness under these circumstances and the policies adapted by the bank and its success. Paper offers evidence that the effective bank size and capital do not have a significant bearing on its operation even under such uncertain period. Results negate the debate of junta government not operating ideally for Thailand. Study is unique as most previous studies mostly focused on global financial crisis and not on effect of political uncertainty on bank's performance.

**Keywords:** accounting, bank performance, financial statement analysis, interim period, indicators, income streams, stability, Thai bank

## **1. Introduction**

Few countries at some point of time face political and social instability that cause imbalances in their business cycles. Social and political instability are variables, which are hard to define. It could originate from executive instability and another from indicators of social unrest and political violence. It is common knowledge that political instability increases the political risks, and the country risk. This political risk factor as it increases it influences the financial variables and the real economic variables and negatively effects the economic growth of a nation.

In 1899, the United States Supreme Court (Austen) used these words to define a bank: "A bank is an institution, usually incorporated with power to issue its promissory notes intended to circulate as money (known as bank notes); or to receive the money of others on general deposit, to form a joint fund that shall be used by the institution, for its own benefit, for one or more of the purposes of making temporary loans and discounts; of dealing in notes, foreign and domestic bills of exchange, coin, bullion, credits, and the remission of money; or with both these powers, and with the privileges, in addition to these basic powers, of receiving special deposits and making collections for the holders of negotiable paper, if the institution sees fit to engage in such business." This definition still holds after 120 years in 2019 and role of Thai bank has been no less important. The 11 commercial banks in Thailand posted a combined net profit of 209 bil baht for 2018. (193 bil baht 2017).

Revenue streams can be affected both by internal and external imbalances. For a bank, its income side is organized little differently. a) Interest earned on loans and advances b) Interest earned on investment across various rated securities & government bonds c) Dealing with foreign currencies and transactions a bank earns commission as a broker d) Fee based income- they accrue in various ways mostly from fund transfers, credit card operations, commissions from sale of insurance policies and advisory services. Therefore, reported financial statement of a bank is somewhat different from other businesses that investors analyze.



It is common knowledge that Government actions influence the economic environment. Economic growth and political stability are deeply connected and both these are responsible for financial stability within an economic system. Broadly, political factors affect businesses in four ways. 1) Impact on economy 2) Changes in regulation 3) Political stability 4) Mitigation of risk. During an unstable political period, it has impact over investments, savings rate and economic development. Generally, an unstable or uncertain political period (lull period) is generally associated with mismanagement of resources, announced policies that might adversely affect certain sections of the society and in general reduce prosperity and stability within such society. Thailand has succumbed to political instability many times. 14 of the 28 years during 1945 to 1973 the regime prohibited the establishment of political parties, and only six elections took place during those 28 years. Thailand's military has a history of intervening in politics and has seized power 12 times since the end of the absolute monarchy - and the introduction of the first constitution - in 1932. The latest coup was in 2014, when General Prayuth Chan-ocha seized power and had the constitution redrafted. He retains power through The National Council for Peace and Order (NCPO).

## 2. Research Objectives

1) To analyze the income streams of selected mid-size Thai bank in the three years just prior to the declared 'election year by junta'

2) To examine whether various economic indicators, (leading and lagging), government figures and projections, monetary and economic BOT data are all reflected similarly as in the income stream of this mid-size commercial Thai bank also

**Research contribution:** Firstly, towards assessing income trends of the bank against selected economic & monetary indicators that how far they are accurate in predicting banks' income trend under critical period of an economy. This study could help existing and future investors and even and policy makers with significant information on understanding mid-tier bank's income trends under such unique internal challenges.

Secondly, banks have access more researched information while the regulators use only few financial ratios and even those might be distorted, due to higher or lower weightage of certain banks. Thus, this study may reduce the information asymmetry between the bank management and stakeholders about expected future performance by higher reliance on internal accounts and figures. To the best of my knowledge, there is no such similar study. This study attempts to fill this gap

## 3. Literature Review

Banking today is not a simple business anymore when compared to the 1<sup>st</sup> bank on this planet "Medici bank", established by Giovanni Medici in 1397. Smith et al. (2003) pointed out that while the basic functions of banks and other financial service companies remained relatively constant over time; these functions now being provided through different products and services. There are, of course, multiple factors that influence bank profit behavior such as business cycles, macro-economic indicators, institutional guidelines as to lending and competition in the industry, and bank-specific characteristics (e.g. Albertazzi and Gambacorta (2009), Athanoglou et al. (2008), Aliaga-Diaz and Olivero (2011) and Bolt et al. (2012). Financial service institutions are among the most heavily regulated of all industries due to their key roles in attracting and protecting public's savings, providing credit to borrowers, and creating money as the principal medium of exchange in our economy. Craig et al. (2013) proposed that qualitative data should also be considered for examining the firm's future performance. This view was also endorsed by Beattie (2014) who asserted that narratives could be used to assess the future financial performance of firms. Banks contribution is

acknowledged by almost all researchers in all stages of an economic development in the country. Research finds that both the operation of banks and the functioning of securities markets influence economic development and that banks provide different services to the economy from those provided by securities market. Fink et al. (2005) also suggest that banks are more important in the majority of the emerging economies. Similarly, Djalilov and Piesse (2016) also argue that when the economies are in the early transition stage, the share of banks towards whole financial system and GDP growth are relatively high. Numerous studies have explored the determinants of Asean banking performance, some on structural changes in banking after the crisis. Chan and Wei (1996) point out that favorable political news lead to positive returns whereas unfavorable news induce negative returns for the Hang Seng Index in Hang Kong. Turning to studies that have focused on bank efficiency, we see that researchers have associated significant reductions in bank profitability as a signal of an impending financial crisis (Demirgüç-Kunt and Huizinga, 1999, Bourke, 1989, Cornetta et al., 2010). In a similar line, Albertazzi and Gambacorta (2009) provide evidence that bank returns decline during periods of high risk. The empirical literature on the impact of policy uncertainty on the economy has explored different paths focusing on monetary policy effects (e.g. Friedman, M. (1968) and Aastveit et al. (2017), fiscal policy decisions (e.g. Hassett & Metcalf (1999) and Fernandez-Villaverde (2015), regulatory policy action (e.g. Higgs (1997), and private investment decisions (e.g. Bernanke (1983), Rodrik (1991) and Gilchrist et al. (2014). The broad findings of the reviewed literature are that higher levels of policy uncertainty lead to negative responses in the overall economic system.

#### **4. Research Methodology**

This is a longitudinal study with 381 undergraduated students (age 18-23) who volunteered to participate. The participants were informed that they can withdraw from the survey anytime without any penalties. There were more female (n = 234, 61.4%) than male (n = 147, 38.6%). Participants' educational levels were: 41.2% Freshman (n = 157), 21.3% Sophomore (n = 81), 23.6% Junior (n = 90), and 13.9% Senior (n = 53).

The SERES is an 18 items assessment which had participants to rate his/her certainty levels of completing exercise routines during a week (three or more time) on a scale of 0-100 (0 = *cannot do at all* to 100 = *highly certain can do*) (Bandura, 2006). To date, there were only two researches by using principal components analysis found SERES supported for a single component that accounted for 78% of total variance without rotation and three components (Situational/Interpersonal factors, Competing demand, and Internal feelings) when using rotation (Shin, Jang, & Pender, 2001). While Everett, Salamonsen, and Davidson (2009) research confirmed a single component which explained 58% of total variance. In contradict with two researches above, the SERES was good fit with two factors: Emotional Issues and External Influences by using common factor analysis and bifactor techniques (Cornick, 2015).

##### *Statistical analysis*

SPSS 25 was used for all statistical analyses with independent factors were Gender (male and female), and Educational levels (Freshman, Sophomore, Junior, and Senior). The dependent variables were SERES scale scores. Principle component analysis with Varimax rotation was used to figure out factors that motive or prevent students to exercise during some challenging situations. Two-way ANOVA with Post Hoc Tests were employed to find out if there were significant differences of self-efficacy for physical activity between gender and educational levels (Field, 2017).

#### **Data and Methodology:**

The exploratory study investigates impact of junta government promises, policies, and conducts a limited review of the news and data of different national and international agencies

in comparing actual revenue performance of “Kiatnakin Finance and Securities Company Limited”-a mid-size Thai bank. The period covered under the study is calendar year 2015 to 2017. (A limited review based on economic data availability is also made for 2018). Mostly data was collected from public database of Kiatnakin Bank’s audited statements, other public reports from SET, BOT and Ministry of Commerce (MoC).

The analysis is in 2 parts.

1. Income statement-Key ratio with Common size analysis
2. Selective comparative study of economic indicators and bank data

Rationale:

- Kiatnakin Bank "KKP" is a mid-size commercial bank by Thai banking standards. As of December 2017, it ranked 10th among 11 listed Thai commercial banks based on consolidated asset size. KKP’s market share in loans was 1.7% and market share in deposits was 1.1%.
- Of the total 19 banks (including retail Thai banks). Currently, the Bank has 66 branches country wide. Ranked by assets it comes at tenth.

Kiatnakin-Phatra Financial Group (KKP) consists of commercial banking business and capital market business. Commercial banking business operated by Kiatnakin Bank Public Company Limited (KK) and the capital market business operated by Phatra Capital Public Company Limited, Phatra Securities Public Company Limited and Phatra Asset Management Company Limited. Kiatnakin Finance and Securities Company Limited was founded in 1971 with the total value of 10 million Baht to perform the finance and securities businesses. The company was listed on the Stock Exchange of Thailand (SET) in 1988 and was transformed to a public company in 1993. Kiatnakin Finance and Securities Company Limited was not only operating at the time of the financial boom period but also experienced many national economic testing times. In August 1997, KK was one of the 57 financial institutions that had their operations suspended due to the Asian financial crisis. In December 2004, the Ministry of Finance (MOF) granted KK a commercial banking license. KK commenced universal banking operations in October 2005, and later changed its name to “Kiatnakin Bank PLC”. There are 15 subsidiaries included in consolidated financial statements of the “Kiatnakin Bank PLC”

**2017:** It is relatively well managed with “A-” Credit Rating by TRIS Rating Co Ltd. The Bank and its debentures were rated “A-” with “Positive” outlook by TRIS Rating Co Ltd. In 2017, it received SET Awards 2017 organized by the Stock Exchange of Thailand (SET) and Money and Banking Magazine (Best Company Performance 2017) -“Best Company Performance Awards” (SET market capitalization of between 30,000 – 100,000 billion baht) from SET Awards 2017.

**2018:** TRIS Rating affirmed the company rating of Kiatnakin Bank PLC (KK) and the ratings of KK’s senior unsecured debentures at “A-” and Basel III Tier 2 subordinated debt at “BBB”. At the same time, TRIS Rating revises the rating outlook of KK to “positive” from “stable”

## **5. Analysis and Findings:**

Table 1: Kiatnakin Bank: Comprehensive Income Statement (2015- 2016) (comparison)  
(Baht Mil)

For the year ended	Consolidated		Change	
	Dec 31, 2016	Dec 31, 2015	Baht million	%
Interest income	14,869	14,776	93	0.6
Interest on loans	4,419	4,619	(200)	(4.3)
Interest on interbank and money market items	135	135	0	0
Hire purchase and financial lease income	8,928	8,910	18	0.2
Interest on securities	403	579	(175)	(30.3)
Interest on investment in loans	985	534	450	84.3

Table 2: Kiatnakin Bank: Comprehensive Income Statement (2015- 2016) (comparison) contd

For the year ended	Consolidated		Change	
	Dec 31, 2016	Dec 31, 2015	Baht million	%
Interest expense	4,436	5,328	-892	-16.7
Interest on deposits	2,111	3,062	-950	-31
Interest on interbank and money market items	89	94	-5	-5.6
Interest on debt issued and borrowing	1,462	1,328	133	10
Fees and charges on Borrowing	3	3	0	13.9
FIDF and DPA fees	726	779	-53	-6.8
Other	45	62	-17	-27.3

2016:

1. Interest income rose by 0.6% (Baht 93 mil) due to increase in hire purchase and financial lease interest income and interest on investment in loan. Interest expenses declined by 16.70% due to decrease in interest on deposit, interest on interbank and money market items, FIDF and PDA fees and others. Net interest income increased 10.4% over its previous year.

2. Net fees and services income increased 6.8% from increase in financial advisory services and underwriting fees. Total operating income rose by 7.3% due to increase in net interest income and net fees and services income.

However bank's gain from trading and foreign exchange transactions from capital market business fell by 34.2% as well as the decrease in gain on investment of 39.4%.

3. Other operating expenses mainly caused by loss from sale of foreclosed assets around 545,112,000 Baht, comprising of loss from sale of repossessed cars (a decrease of 6% over previous year).

4. In absolute figs the Group Consolidated net income was ThB5,611,115Bil (3,425.551Bil) 2015 and separately they were ThB5,421,502Bil (ThB4,069,423bil) 2015

Key Ratios:

1. Cost to income ratio: 2016 at 45.51% was lower by 12.39% from 2015.
2. GP margin: 70.17% higher by 9.73% over 2015.
3. ROA (Return on Asset) in 2016 was 24% and higher by 65.46% over 2015 (14.51%) and indicates that bank used assets to generate more revenue than the previous year.
4. ROE (Return on Equity), it was 139.24% and had gained 54.17% from year 2015.
5. Net interest margin: Was 0.0446% (increased by 11.54%) from the previous year.

Kiatnakin Bank Public Company Limited

Table 3: Comprehensive Income Statement (2016 -2017) Comparison (“000” Bht)

For the year ended December 31, (BAHT'000)	CONSOLIDATED			Change	
	2017	percent	2016	Amount	percent
Interest income	14,844,465	298.83%	14,869,138	(24,673)	(0.2)
Interest expenses	4,216,027	84.87%	4,436,088	(220,061)	(5.0)
<b>Interest income, net</b>	<b>10,628,438</b>	<b>213.96%</b>	<b>10,433,050</b>	<b>195,388</b>	<b>1.9</b>
Fees and services income	4,448,116	89.54%	4,174,296	273,820	6.6
Fees and services expenses	392,980	7.91%	467,747	(74,767)	(16.0)
<b>Fees and services income, net</b>	<b>4,055,136</b>	<b>81.63%</b>	<b>3,706,549</b>	<b>348,587</b>	<b>9.4</b>
Gain on trading and foreign exchange transactions, net	268,337	5.40%	577,240	(308,903)	(53.5)
Gain (Loss) on investments, net	177,943	3.58%	203,326	(25,383)	(12.5)
Dividend income and profit sharing	673,584	13.56%	442,456	231,128	52.2
Other operating income	494,417	9.95%	792,921	(298,504)	(37.6)
<b>Total operating income</b>	<b>16,297,855</b>	<b>328.09%</b>	<b>16,155,542</b>	<b>142,313</b>	<b>0.9</b>
<b>Other operating expenses</b>					
Employee's expenses	4,967,514	100.00%	4,767,079	200,435	4.2
Directors' remuneration	67,367	1.36%	31,982	35,385	110.6
Premises and equipment expenses	988,137	19.89%	968,748	19,389	2.0
Taxes and duties	332,325	6.69%	334,831	(2,506)	(0.7)
Loss from revaluation of foreclosed assets	276,330	5.56%	25,898	250,432	967.0
Loss (Gain) from sale of foreclosed assets	209,155	4.21%	(545,112)	754,267	(138.4)
Other expenses	1,737,545	34.98%	1,768,984	(31,439)	(1.8)
<b>Total other operating expenses</b>	<b>8,578,373</b>	<b>172.69%</b>	<b>7,352,410</b>	<b>1,225,963</b>	<b>16.7</b>
Impairment losses on loans and debt securities	763,224	15.36%	2,313,121	(1,549,897)	(67.0)
<b>Profit from operating before income tax expenses</b>	<b>6,956,258</b>	<b>140.03%</b>	<b>6,490,011</b>	<b>466,247</b>	<b>7.2</b>
Income tax expenses	1,190,205	23.96%	878,896	311,309	35.4
<b>Net profit</b>	<b>5,766,053</b>	<b>116.08%</b>	<b>5,611,115</b>	<b>154,938</b>	<b>2.8</b>

1. Interest income dropped by 0.2%, while interest expense dropped by 5% resulting in net interest income rising by 1.9% yoy.
2. Fees and service income (net) was higher than 2016 by Bht348.587Mil in 2017.( Fees and service income was higher by 9.4% yoy, resulting from fees and service income risen by Bht 273.820Mil, fees and service expenses was also lower by nearly Bht 74.767Mil)
3. Gain on trading and Foreign exchange transactions dropped by huge 53.5%, (Bht308.903) Mil and was partly offset by dividend income and profit share, which rose by 52.2% (Bht231.128Mil). Gain on investments also dropped by 12.5% while other operating income also dropped by 37.6% (Bht 298.504Mil)
4. Total change in operating income is just 0.9% yoy. Total other operating expense has increased nearly 16.7% yoy.
5. Gain from foreclosed assets sale increase was 138.4% while loss from revaluation of foreclosed assets was 967% indicating the property price slump.
6. Total operating profits before tax has increased by 7.2% yoy.

Key Ratios:

6. ROA 2.82% (down by nearly 21.18%)
7. ROE 14.06% (down by nearly 125.18%)
8. Net profit margin 28.04%
9. Net profit growth 3.43%

Selected indicators

Table 4: Stock Exchange of Thailand (SET) Index:

SET	2015	2016	2017	2018
Opening	1581.25	1300.98	1577.31	1826.86
Closing	1288.02	1542.94	1753.71	1563.88

1. Beginning 2017 (past 2 years) the SET index had still not reached its opening high. The recovery started from 2017 ending at an all-time high of 1753.71, however the entire gain was lost in 2018 when the close was below that of 2015 opening indicating the market had slumped very badly due to political and other factors. 2. Overall market capitalization of the Stock Exchange of Thailand ("SET") and the Market for Alternative Investment ("MAI") at the end of 2018 was valued at Baht 16.2 trillion, down 9.5% from the end of 2017.

Table 5: Other Key Indices:

SUMMARY OF KEY INDICES						
			2014	2015	2016	2017
1	Leading Economic Index	Avg	137.99	143.37	146.42	149.24
2	Export Volume index (exclude Gold)	Avg	102.79	100.75	99.15	106.51
3	Oil Price Inverse Index (Dubai)	Avg	1.07	2.02	2.51	1.89
4	CPI (AI commodities) (Jan each yr)		100.15	99.74	99.21	100.75

Findings:

- 1) Leading indicators forecast future economic activity. From 2014-2017 it has slowed indicating problems in the economy.
- 2) Export volume index dropped from 2015-2016 and a recovery was seen in 2017
- 3) Oil price inverse index: Steady rise indicating the rising cost of oil
- 4) Consumer Price index: it measures average change over time in the prices paid by consumers for a market basket of consumer goods and services." Declining CPI in 2015-2016 indicates that there is deflation or a general decrease of goods and services.

BOT (Annual report) financial sector (2017-18)

1. While the overall NPL ratio of the commercial banking system edged higher, growth had been slowing since 2016 (Q4) as indicated by the deceleration in new and re-entry NPL
2. Despite some deterioration in the overall loan quality, high levels of capitals and reserves were the key factor that upheld confidence in the stability of the financial institutions system.
3. Importantly, the banking sector continued to face challenges in maintaining profitability amid the changing environment.

Summary of finding (2015-2017)

- 1) 2015- The Thai economy recovered gradually in 2015, recording a 2.8 percent growth. Domestic spending was the main driver of growth. Economic recovery however was constrained by contracting exports, both in terms of price and quantity. Export prices dropped in line with the falling oil price. Export quantity fell because of the slowdown in Thailand's main trading partners' economies, particularly China and ASEAN, which resulted in the generally low level of manufacturing output.
- 2) 2015- In terms of economic and financial stability, headline inflation remained negative due to the sharp fall in oil prices. However, deflation risk was still low because core inflation remained positive and inflation expectations were close to the inflation target. Unemployment rate was low, similar to that in the previous year. Nonetheless, sluggish and uneven economic recovery created greater vulnerabilities in the household and business sectors. The declining

loan quality of the private sector heightened concerns over the ability of households and businesses to service debt. MPC reduced the policy interest rate twice in its March and April meetings, with a view stimulate Thailand's economic recovery, closing at 1.50 percent of 2015.

- 3) 2016: the Thai economy was faced with a number of challenges: crops affected by drought, declining exports, domestic uncertainty, dynamics of global politics and heightened volatility in the global financial market at times. The overall economy in Thailand in 2016 grew around 3.2% which increased 2.8% from 2015. In 2016, the Financial Institutions Policy Committee of the Bank of Thailand maintained the policy rate at same level since April 2015 at level of 1.5%.

#### Other Factors

Thailand's Economic Conditions in 2016 was affected by withdrawal of Thailand's Generalized Scheme of Preferences (GSP) in the European market prompted a relocation of labor-intensive industries such as textiles and apparels to neighboring countries.

#### Kiatnakin Bank Public Company Limited: Observations from Financial statement 2015

Despite the problems in the external economy and the political crisis within the bank's business operation were conducted cautiously and to move further into new businesses to expand their commercial banking operating capabilities. The cautious commercial banking business operation resulted the Bank's loan portfolio in 2015 contracting by 3.61% from 2014 while at the same time auto hire purchase loans declined by 6.44% and commercial loans contracted by 3.83%. This was offset by corporate banking loans increasing by 51.80%. The ratio of NPLs to total loans at the end of 2015 was 5.85%, slightly higher from 5.61% at the end of 2014.

#### 2016

In 2016, KK Bank focused into three business areas: a) Credit House - creating the efficiencies and standard and loan expansion; (b) Private Banking – business enlargement and capitalizing on the Group's expertise in the business to expand and increase fee income and assets; (c) Investment Banking – maintain the status as the leader and increase cooperations between the commercial banking and capital market businesses. Also continuing development new products and services to reach new client base through new alternative channels like “KK SME Car3x” loan, aimed to small and medium-sized enterprises by using the cars as a collateral with a maximum credit line of three times of the collateral value. End 2016, Bank had 66 branches.

#### 2017

In Statement of Comprehensive Income 2017 the Interest & Div Income stood at 14,844.46 mb down 0.166% from 2016 while interest expense at 4,216.03 was also less by 0.166%. Non interest income down 5.454%, with the exception being fees and service income up 6.56%. Net income before Tax was up by 7.184% however Net income marginally up by 3.428%. It is interesting to note that the EPS steadily increased over the three years of analysis. The paid up capital remained unchanged at 8,467.51mb. The total assets at 259,335.24mb were higher than 2016 by 10.93% while total liabilities at 217,787.01mb was also higher than 2016 by 12.692%.

#### 2017: MPC observations

- 1) Overall, economic growth further contracted in the fourth quarter of 2017 driven mainly by the external sectors, but due to underlying strength of domestic demand and household purchasing power, headline inflation that remained below target. Risks to financial stability still warranted monitoring. MPC kept the policy rate unchanged at 1.50 percent at the meetings on November 8 and December 20, 2017

- 2) Financial conditions were accommodative. Short-term bond yields remained below the policy rate due to a decreased supply of short-term bonds. Financial stability remained sound but certain inherent risks included, debt serviceability of SMEs and low-income households as the positive spillovers from the economic expansion did not yet broaden out, as reflected in deterioration in credit quality.
- 3) Oversupply of property developments such as condominium units along the MRT Purple Line, which have a longer time to go, as well as developments regarding the launches of mixed-use real estate projects that would raise supply in the next 4-5 years.
- 4) Exports of services in 2017 were slightly lower than expected for non-tourism receipts, while tourism remained strong.
- 5) Public spending remained an important economic driver despite some unexpected delays in some investment projects, constrained by limited disbursement efficiency and heavy rain which affected construction

Table 6: Kiatnakin Bank Public Company Limited 'Common Size Income Statement'

Particular	2015	2016	2017
Interest income (Revenue)	100.00%	100.00%	100.00%
Interest expenses	36.06%	29.83%	28.40%
Interest income, net (Gross profit)	63.94%	70.17%	71.60%
Fees and services income	26.62%	28.07%	29.96%
Fees and services expenses	3.13%	3.15%	2.65%
Fees and services income, net	23.49%	24.93%	27.32%
Operating income (EBIT)	40.45%	45.24%	44.28%
Gain on trading and foreign exchange transactions, net	5.94%	3.88%	1.81%
Gain (Loss) on investments, net	2.27%	1.37%	1.20%
Dividend income and profit sharing	2.17%	2.98%	4.54%
Other operating income	4.08%	5.33%	3.33%
Income before tax (EBT)	25.99%	31.68%	33.41%
Income tax expenses	4.07%	5.91%	8.02%
Net income	21.92%	25.77%	25.39%

Interest expense was 36.06% of total revenue, keeping balance profit of 63.94% in 2015. For 2016, these figs were 29.83% and 70.17% while in 2017 28.40% and 71.60% respectively. Thus, the Gross profits increased 7.66% in 2 years. After subtracting fees and services expenses from Fees and services income, the net fees and service income has was 23.49% of revenues in 2015, while for 2016, 2017 these were 24.93% and 27.32% of revenues respectively. Operating Income: In 2015 it was 40.45% of revenues, in 2016 45.24% of revenues and in 2017 slightly lower at 44.28% of revenues respectively. Gains on trading, plus gain or (loss) on investments, plus Dividend income and profit sharing plus other operating income accounted for 14.46% of revenues in 2015, 13.56% of revenues in 2016 and only 10.87% of revenues in 2017. Income before tax (EBT) was 25.99% of revenues in 2015, 31.68% in 2016 and 33.41% 2017. Overall in 2 years over 2015 EBT increased by 7.42%.

Table 7: Kiatnakin Bank Public Company Limited 'Financial Ratios'

Profit Ratio:	2015	Change%	2016	Change%	2017
ROA	14.51	65.46%	24.00	-7.37%	22.23



ROE	90.32	54.17%	139.24	0.19%	139.51
Net interest margin	0.0400	11.54%	0.0446	-8.17%	0.0410
Cost to income	51.95%	-12.39%	45.51%	15.66%	52.63%
Gross profit	63.94%	9.73%	70.17%	2.04%	71.60%
EPS (Baht)	6.55			6.88	
Total Other Op Expenses	8,801,156	15.72%	10,184,745	-13.05%	8,856,112

(Table 7.1): Kiatnakin Bank Public Company Limited ‘Financial Ratios’

Income statement ratio	2015	2016	2017
Gross margin	36.06%	29.83%	28.40%
Profit margin	21.92%	25.77%	25.39%
Operating margin	40.45%	45.24%	44.28%
Times Interest Earned	2.80	3.34	4.07

Ratios:

1. Gross margin ratio: decreased by 6.22% from year 2015, by 1.43% from 2016.
2. Profit margin ratio: 2016 was 25.77%, then increased by 3.85% over 2015 and in 2017 decreased by 0.38%.
3. Operating margin: in 2016 increased to 45.24% from 40.45% in 2015 and in 2017, decreased by 0.96% to 44.48% compared to 2016.
4. Time interest earned ratio: Showed upward trend increasing each year from 2015 to 2017. (2.8 to 4.07) nearly doubling in 2 years.
- 5.

### **Discussion and Conclusions:**

Table 8: Combined Indices with Net Margin (comparison)

	2015	2016	2017	2018
SET index (Dec)	1288.02	1542.94	1753.7 1	1563.88
GDP(in Bil)	\$401.40	\$411.80	\$455.2 0	NA
BOT (Cur Act Bal)in Bil	\$32.11	\$48.21	\$50.21	\$35.16
Kiatnakin Bank Public Company Limited and Subsidiaries (Net income) Mil ThB	3,317.00	5,547.00	5,737.0 0	6,042.0 0

Source:

1. SET: <https://www.set.or.th/set/companyprofile.do?symbol=KKP&ssoPageId=4&language=en&country=US>
2. KKP
3. GDP: World Bank  
<https://data.worldbank.org/country/thailand?view=chart>
4. BOT: [https://www.bot.or.th/App/BTWS\\_STAT/statistics/ReportPage.aspx?reportID=646&language=eng](https://www.bot.or.th/App/BTWS_STAT/statistics/ReportPage.aspx?reportID=646&language=eng)
5. ReportPage.aspx?reportID=646&language=eng
6. Kiatnakin Bank:Annual report:<http://kkp.listedcompany.com/ar.html>

From the Statements of Comprehensive Income 2015 and 2016, income increased by 84.6% but from 2016 to 2017 the growth slowed to 6.2%. Overall the profitability of the bank rose.

Reasons: From 2016 to 2017 the bank's profitability slowed down because of the decrease in popularity and the service of the business from a saturation phase. This is observed with net profits also as it shows that from 2015 to 2016 there was huge increase 3,317 to 5,547 million baht but next year was just 5,737 million baht indicating profitability drop (same as the Statements of Comprehensive Income).

A) It can however be concluded that from the limited financial review study especially income trends of the bank during the lull period reflects the economic and financial indicators correctly within the Thai economy. The period in consideration (2015-2017) was a difficult period for Thailand especially in view of slowdown in Thailand's main trading partners' economies, particularly China and ASEAN in 2015, and this was compounded by the political unrest, junta administered government and people's perception about the future.

B) Things got no better in 2016 as the Thai economy was faced with severe drought, subdued exports, continued domestic uncertainty, dynamics of global politics and heightened volatility in the global financial market at times. The key sustaining element was the 'tourism boom' and not really the policies of the caretaker junta government. 2017 was the year where the global recovery started to look positive. This was led by sustained momentum in G3 economies, buoyant global stock markets and a suppressed level of financial market volatility. C) Financial institutions maintained high levels of provisions and capital buffers, which served to cushion against the deterioration in loan quality of some borrower groups. These included small and medium enterprises (SMEs) and low-income households, both of which had not yet benefitted fully from the ongoing economic expansion.

D) This research also validates that a midsized commercial bank can effectively survive and maintain its market share and profitability by improved its risk management, improve working standards, introducing a series of product and service launches and boosting competitive capabilities to take on much larger and more stronger players in the financial market.

E) The research concludes as per table 8 of summary that relevant government data and other indicators were fairly expressed and there is no distortion as our study found.

## References

Alesina, Alberto, and Roberto Perotti. 1996. INCOME distribution, political instability, and investment.

European Economic Review. 40(6): 1203-1228

Asli Demirgüç-Kunt, T. Beck and V. Maksimovic), FINANCIAL and Legal Constraints to Firm Growth:

Does Firm Size Matter?, JOURNAL of Finance, Vol 60:1, 137-177. February 2005

Albertazzi, Ugo & Gambacorta, Leonardo. (2006). BANK Profitability and the Business Cycle. SSRN

Electronic Journal. 10.2139/ssrn.935026

Aliaga-Diaz, Roger & Olivero, Mariona. (2010). THE Cyclicalilty of Price-Cost Margins in Banking: An

Empirical Analysis of its Determinants. Economic Inquiry. 49. 26-46. 10.1111/j.1465-7295.2010.00327.x

Abrugena, Grace justine n, 2013-2014, THE Medici and the Catholic Church, Western History: From

Modern Times to Present (Hi18.2) Department of History-Ateneo de Manila University  
 Annual report, Kiatnakin Phatra financial group retrieved from  
<http://kkp.listedcompany.com/ar.html>

Bernanke Ben S., NON-Monetary Effects of the Financial Crisis in the Propagation of the Great Depression  
 BBC.Com 7 March 2019 com retrieved from <https://www.bbc.com/news/world-asia-15581957>

Bank of Thailand, 04/04/2019, commercial banks registered in Thailand, Retrieved from <https://www.bot.or.th/English/Statistics/FinancialInstitutions/BLS/Pages/default.aspx>

BOT monetary policy 2015 retrieved from [https://www.bot.or.th/English/MonetaryPolicy/EconomicConditions/AnnualReport/AnnualReport/annual2015\\_V2.pdf](https://www.bot.or.th/English/MonetaryPolicy/EconomicConditions/AnnualReport/AnnualReport/annual2015_V2.pdf)

Chan, Yue-cheong & John Wei, K.C.. (1996). POLITICAL risk and stock price volatility: The case of Hong Kong. *Pacific-Basin Finance Journal*. 4. 259-275. 10.1016/0927-538X(96)00014-5

Collins dictionary.com retrieved from <https://www.collinsdictionary.com/dictionary/english/lull>

Friedman Milton March 1968 THE role of monetary policy, *The American Economic Review* Volume LVIII

Hasset Kevin A, Metcalf Gilbert E, INVESTMENT with uncertain tax policy, (July 1999), *the Economic Journal* 109 372-393, Blackwell publishers

Knut Are Aastveit† James Mitchell‡ Francesco Ravazzolo§ Herman K. van Dijk, August 27, 2018, THE Evolution of Forecast Density Combinations in Economics 8-32 TI 2018-069/III Tinbergen Institute Discussion Paper

Moorad Choudhry, *Bank Asset and Liability Management: Strategy, Trading, Analysis*, John Wiley and Sons(Asia)Pte Ltd, April 13, 2007

NBER 1050 Massachusetts Avenue Cambridge MP 02138 NBER Working Paper No. 1054 Issued in 1983

PESTLE analysis Contributor Feb 24, 2015 Political Factors Affecting Business retrieved from <https://pestleanalysis.com/political-factors-affecting-business/>

SET Market statistics retrieved from [https://www.set.or.th/en/market/market\\_statistics.html](https://www.set.or.th/en/market/market_statistics.html)

Stock exchange of Thailand, Financial Statement (Full version) retrieved from <https://market.sec.or.th/public/idisc/en/Viewmore/fs-full?searchSymbol=KKP>

Villaverde Jesús Fernández,-Quintana Pablo Guerrón, Kuester Keith,-Ramírez Juan Rubio, FISCAL Volatility Shocks and Economic Activity, *American economic review* vol. 105, no. 11, November 2015 (pp. 3352-84)

# Cultural connotation and product mapping of health tourism in China

Lina Zhong<sup>1</sup>, Baolin Deng<sup>2</sup>

School of tourism Sciences<sup>1</sup>

Beijing International Studies University

Beijing 10024, China

Email: [zhonglina@bisu.edu.com](mailto:zhonglina@bisu.edu.com)

School of tourism Sciences<sup>2</sup>

Beijing International Studies University

Beijing 10024, China

Email: [dengbaolin0225@163.com](mailto:dengbaolin0225@163.com)

**Abstract:** Health tourism products have become the object of tourists' pursuit, and health tourism has become an important project for the development of domestic tourist attractions. health tourism has the basic projects of traditional tourism. on this basis, it has added many concepts of traditional health culture and formed a new type of tourism that integrates various functions such as recuperation, leisure, health care and vacation. on the basis of expounding the relevant theories of health tourism culture, this paper discusses the connotation of traditional health culture from the perspectives of Taoism, Confucianism and Buddhism, and analyzes the characteristics and classification of Chinese health tourism. the product mapping of traditional health culture in modern health-preserving scenic areas is deeply analyzed with three scenic spots of Wudang Mountain, Shennongjia and Dalaoling, on this basis, to explore the development strategies of traditional health culture and modern tourism development in China.

**Key words:** health tourism; traditional health culture; health tourism products; product mapping

## 1 Introduction

### 1.1 The global development trend of health tourism

Health tourism originated in the United States in the 1930s in New Mexico, and has attracted the attention of leisure travel researchers around the world. Modern health tourism aims to maintain health and repair health, and features fitness activities and medical care programs to meet the purpose of relaxing and rejuvenating. (Wang Yan , 2008, p.109-110)With the increase in the number of elderly people, the proportion of sub-health population has increased, and the world's diseases have continued to grow. Health tourism has developed rapidly in the 21st century,(Bernstein, 2012, p.22) especially in France, Hungary, Austria and other countries. Countries such as India ,Thailand and Japan have won the favor of health tourists by virtue of their price advantage and special health tourism products.

### 1.2 The significance of health tourism development in China

China has rich traditional cultural content. Health tourism needs to be built on the traditional health culture. The development of health tourism and health tourism products will further promote the traditional health culture. For health tourism to develop further, it is necessary to test and produce special products that can attract tourists, and many health care methods that have been handed down in traditional health culture have become the core content of health tourism products. In the spirit of “going to its dregs and taking its essence”, it discriminates and selects traditional methods of health preservation, combines traditional health culture with modern health care concepts, and develops and innovates health tourism products according to modern human body conditions and health care concepts. Promoting the development of health tourism is of great significance.

## 2 Literature review on health tourism

### 2.1 Theoretical research on health care

#### 2.1.1 "Health" in Western Culture

The famous European and American physiotherapist Halbert L. Dunn first proposed the health in Western culture - "Wellness", which means health and happiness. (Yang Fusha, Yan Yan, Li Xin, Zu Yanting, & Zhang Ruihong, 2018, p.170-171) Halbert L. Dunn believes that the highest state of health is self-abundance. (Dunn, H. L, 1961; Yang Fusha, Li Xinxin, Yan Yan, Zu Yanting, & Zhang Ruihong, 2018, p.216-218) Adams believes that health care has the characteristics of multi-dimensionality and multi-space, and that the key to health care is maintenance and health care, focusing on a balance within the human body, and that health has certain relativity, subjectivity and perception. (Zhang Zhiliang, 2016, p.10-11)

#### 2.1.2 "Health" in Chinese traditional culture

Zhuangzi first proposed China's "health", and repeatedly emphasized in the "Zhuangzi Health Master" that human health needs to follow the laws of nature and carry out physical and mental maintenance without violating the laws of nature. (Liu Qingyu and Lu Ning, 2016, p.4-6) In traditional culture, "health" is called "receiving", "daosheng", "nurturing", "health", etc. (Luo Yiling, Zhou Lingqiang, & Liu Yabin, 2016, p.139-142) It is not difficult to see from these words that health in traditional culture refers to feeding, according to life. The law of development to maintain life, healthy spirit, enhance wisdom, and prolong life.

#### 2.2 The connotation of traditional health culture

The Taoist concept of health care is that the Taoist can learn and fly into a fairy. The pursuit is that immortality is not old, the cultivation direction of "Tao" is flying into a fairy, and the pursuit of "Xian" is immortal. (Wang Junfang and Yuan Tiexiang, 2015, p.194-199) Therefore, if you want to cultivate the immortal, you must first maintain your health. It is an important way to improve your health. The monks have accumulated rich experience in constant practice and formed a complex health system. The immortal doctrine, the Lao Zhuang Taoist thought, the Yin and Yang Five Elements theory, and Chinese medicine are all regarded as important sources of Taoist health care.

#### 2.2.2 Confucian health thinking

The four books of Confucian classics are the ideological roots of Confucian health culture. (Ye Chun, Li Yuanni, & Yao Li, 2014, p.449-456) Confucianism believes that life must be understood in the world, and if the Son of Man does not understand medicine, it is considered filial. The large number of Confucian doctors fully confirms this point, and "heart-based" is the Confucian philosophy of health. Confucian adherence to the way of health is formed through a combination of physical activities such as exercise, activity and bones, and moral activities. The purpose of this is not only to ask people to be healthy, but also to be more important in mental health. It regards human life as a whole of form, spirit and heart.

#### 2.2.3 Buddhist health thoughts

Buddhism health pays attention to life and death, and becomes a Buddha. Under the influence of this kind of thinking, human life is often neglected. Buddhism cannot clearly propose specific ways to maintain health, but Changsheng is obviously not listed. (Dong Xiaoying, Zhao Huan, & Lai Bonian, 2014, p.53) Buddhism defines martial arts, meditation, and wisdom as the concept of health, in which the ring is vegetarian, the meditation is meditation, and the qigong and martial arts are returned.

#### 2.3 Category for health and culture tourism

Professor Zhang Yuexi once pointed out in the concept and development of health and culture tourism that health tourism is a comprehensive integrated tourism that is dominated by health and culture and can continue to be integrated with nature. (Lanjuping and Tian Manwen, 2013, p.71-76) Under the guidance of this definition, the scope of health and culture tourism includes health and physical therapy, physical health, spiritual relaxation, hedonic experience, aesthetic psychology, philosophical psychology, ideological meditation, food supplements. It can be seen from the above that the content of the health culture rate is the tourism activity in the tourist scenic spot, so it is very important to develop the health culture tourism resources in the tourist scenic spot.

### 3 Research method

### 3.1 The basis for the selection of case studies.

The method for case study used in this paper is mainly considered from the research object of this paper and the previous research paradigm. From the research object, Wudang Mountain, Shennongjia and Dalaoleng are important material carriers of traditional Chinese health culture. For example, Wudang Mountain is a model of Chinese Taoist health culture. The traditional health culture spreads for a long time and is very representative. From the perspective of research paradigm, case study is a more appropriate research method to explore traditional Chinese health culture. It can discover the connotation, characteristics and evolution of traditional Chinese health culture through the analysis of typical cases.

### 3.2 The background of the case

The background of the case selected in this paper is the origin of traditional Chinese health culture, and is known for its health culture. The three selected cases have different cultural connotations, reflecting the differences in case selection and better inducing traditional health cultural traits. The interaction of the three major traditional health cultures. Wudang Mountain represents the traditional Taoist culture. The health tourism products behind it include Taiji Lake Health, Health Restaurant, Taoist Hospital, etc. Shennongjia represents traditional Confucianism. The most distinctive feature is the Chinese Medicine Museum; Dalaoling is Buddhism. An important carrier of culture, featuring green catering, is in line with the “martial” of Buddhist culture.

## 4 Characteristics and classification of Chinese health tourism

### 4.1 Characteristics of China's health tourism

#### 4.1.1 Nature of tourists' universality

Health tourism is not a patent for the elderly and patients, and people of all ages can participate in health tourism. (Liu Tiantian, Ma Jianzhang, & Zhang Bo, 2013, p.119-122) In recent years, the proportion of healthy people in health tourism in China is getting higher and higher. Whether it is healthy group or sub-health group, or suffering from patients, they are constantly pursuing a healthy lifestyle. Their high pursuit of physical and mental health reflects strong health purpose.

#### 4.1.2 Nature of tourist stickiness

Stickiness refers to the attraction of tourist destinations to tourists. This attraction will result in tourists revisiting. The characteristics of health tourism products in tourist attractions determine the attractiveness of tourists. The characteristics of health tourism products include whether there is a unique ecological environment, diversification of health products, completeness of service facilities and service levels. When these conditions are met, the viscosity of health tourists will be greatly improved.

#### 4.1.3 Nature of tourism experience

There is no obvious difference in the form of health tourism and ordinary tourism. For example, the hot spring therapy in some scenic spots is not much different from the beach in the ordinary scenic spot, so the experience of health tourism and ordinary tourism There is no difference, and this is also an important reason that can be accepted by the public. Health tourism has a layer of experience more than ordinary tourism, which has become the key to attracting tourists. In order to attract tourists, some scenic spots will make visitors feel fresh and fresh with the new health tourism products, which greatly enhances the experience of tourism.

#### 4.1.4 Nature of Scientific and professional

The health tourism activities take the original ecology and the theory of traditional Chinese medicine as the core content, and combine the original ecological tourism content with the scientific Chinese medical law to achieve a good effect. For example, Japanese hot springs are well-maintained by professional technicians at the time of water temperature and hot springs; Sanya's spas are also accompanied by full-time technicians; Wudang Mountain's Taoist health courses also have special guidance. Health tourism has certain local characteristics. After combining traditional cultural content with modern scientific therapy, the scientific professionalism of health tourism is vividly reflected.

#### 4.1.5 Nature of education

Health tourism advocates self-cultivation, physical fitness. This is also the embodiment of health tourism education. Health tourism can give visitors a deeper understanding of their physical condition, and they can pursue a healthy lifestyle as a standard of health in their lives and work. Although the education of health tourism can not be immediately effective, the impact of tourists' subtle influence still exists, and this influence will affect the health concept of tourists to varying degrees.

#### 4.2 Classification of chinese health tourism

Health tourism pursues the realm of "Heaven and Man", paying attention to the harmonious state between man and nature. Any kind of health tourism products are inseparable from the support of the ecological environment. Under the premise of the ecological environment as a carrier. The person is physically and mentally pleasing, and the health content corresponding to the ecological environment is recommended to the tourists. These health tourism products have certain speciality, non-replicability, health value and certain healing effects.

##### 4.2.2 Traditional health tourism

Traditional health tourism is a special form of health care that combines traditional health culture, health preservation methods and living habits. This traditional health tourism product originates from the birthplace of traditional culture and uses the essence of traditional culture to help tourists get the purpose of health preservation, the content of these traditional cultures and methods is characterized by strong technical and high qualifications.

##### 4.2.3 Spa Tourism

The spa tourism takes water as the basic condition, cooperates with professional Chinese medicine bath and traditional massage techniques, and assists tourists to eliminate fatigue, relax body and mind, and effectively improve the sub-health symptoms of tourists with the help of yoga and meditation. This type of spa requires high quality water resources and requires an ecological environment that matches it.

##### 4.2.4 Sports tourism

Sports tourism is based on sports. This new type of health-care mode is based on exercise and achieves the ultimate goal of weight loss and fitness through exercise. Health sports health tourism is not the same as ordinary health room sports. Health sports health tourism is carried out under the guidance of professional coaches under the background of specific ecological environment, supported by natural resources such as mountains, rivers, grasslands and forests. A health-care campaign, this type of health tourism program is only suitable for young people who are physically fit.

##### 4.2.5 Beauty tourism

Medical beauty and health tourism mainly takes medical beauty as the core content. The destinations of health tourism are mostly medical institutions, which achieve the effects of beauty and body through professional medical means. Medical beauty and health tourism have higher requirements for the venues and medical technology of health tourism.

### **5 Case study based on the mapping between traditional Chinese health care and modern health tourism product.**

#### 5.1 Development ideas for health tourism products

The development ideas of health tourism products are mainly oriented to the tourist attractions. The development ideas refer to the precise functional positioning of the development goals of the tourism products to be developed in the tourist attractions, and the health tourism products under the guidance of development ideas. The development effect is a systematic prediction. There are certain differences in the tourism resources and health media of different health tourism destinations. After systematic analysis and evaluation based on existing tourism resources and health media, determine the development intensity and breadth of

tourism health resources to ensure that tourists are here. Being able to get a higher level of experience is the core development idea of health tourism products.

#### 5.2 Taoist Culture Health - Wudang Mountain

Wudang Mountain is a famous health tourism base in China. Its geographical environment is superior. There are both Shennongjia virgin forest and Danjiangkou Reservoir. Its rich natural resources have laid a solid foundation for the development of health tourism. Wudang Mountain is a model of Taoist culture health tourism. Because there are a large number of ancient buildings in the scenic area, this part of the ancient buildings is mainly composed of Taoist temples, pavilions and pavilions, and Taoist Xianshan, a civilized Taoist temple at home and abroad. Has become an important classic of civilized overseas. Due to its rich Taoist cultural connotation, Wudang Mountain is known as Taoist Xianshan. In the development process of Wudang Mountain health tourism products, we should design corresponding health tourism products around the characteristics of Taoist culture and health preservation. These health tourism products include Tai Chi Lake health care, health restaurant, and medical hospital. Among them, Tai Chi Lake is a health tourism product developed around “water”. It is mainly characterized by health spa, which uses spa to help tourists eliminate physical and mental exhaustion and soothe. Pressure to meet their health needs; Health Restaurant follows the Taoist culture's “grain of the valley” to meet the deeper needs of tourists for diet and health, using fungi, soy products, pasta as the basis for cooking, adding health herbs to it. It is made into a medicated diet to promote people's health and longevity; the Taoist Medical Center combines Taoist health culture with Chinese medicine, and employs old Chinese medicine practitioners who have in-depth research on Taoist culture to produce various Chinese patent medicines and Chinese herbal medicines to provide Chinese medicine for tourists. Health activities such as massage.

#### 5.3 Confucian Culture Health – Shennongjia

Shennongjia Nature Reserve is rich in forest vegetation and rich in natural landscapes. It is known as the “Chinese herbal medicine kingdom”. The important content of Confucianism is to practice medicine. Combining the content of traditional health culture, taking the rich Chinese herbal medicine resources of Shennongjia Nature Reserve as the background, the special tourism of traditional Chinese medicine is regarded as an important health tourism product of Confucian culture. Its health tourism products include sightseeing health tourism, experiential health tourism and medical health tourism. Among them, sightseeing health tourism mainly focuses on natural herb production areas and traditional Chinese medicine plantations; health tourism provides pleasant experience for tourists in tourist attractions. Including visitors to experience Zhang's medical culture, personally taste Chinese medicine, experience acupoint stimulation and many other projects; medical tourism provides medical services as the core content, and the Chinese Medicine Museum provides Chinese medicine decoction pieces, Chinese patent medicines to sold tourists.

#### 5.4 Buddhist Culture Health - Da Lao Ling

Buddhism culture health pursuit is to detach from life and death, not concerned about the body skin, more attention to the , Zen, Wu. Da Lao Ling National Forest Park is rich in vegetation, providing people with more opportunities to get close to nature. Visitors can enjoy the purpose of self-cultivation while enjoying the scenery of the mountains. Among them, forest tourism, forest health, forest special souvenirs and local health food and beverage have become the key content of Buddhist culture. Among them, the green food is more in line with the "martial" in the Buddhist culture, that is, vegetarian attention. The Dalaoling Forest area is rich in medicinal plants, wild vegetables, wild fruits, etc., and the wild fruits are used as raw materials to retain the original nutrients after technical processing. With the beautiful packaging, they can become the favorite forest health foods for tourists. . The theme restaurant, which is mainly based on wild vegetables, can provide seasonal mountain dishes in different seasons. The taste is rich and comprehensive, and it naturally becomes an important buying point for health food and beverage. Pollen health is also an important health tourism product.



Pollen has the nourishing effect of communication. It is used in all ages, especially anti-aging, coping with various geriatric diseases. After scientific and technological processing, it retains the original nutrients and becomes A major feature of Dalaoling Health Tourism.

## **6 Development strategy for Chinese Traditional Health Culture and Modern Tourism**

### **6.1 The meaning of the combination of tradition and modernity**

The traditional way of keeping in good health conforms to traditional philosophical thoughts, Chinese medicine culture, religious culture, folk culture and other content. As an important part of traditional culture, after years of development, it has formed its own unique characteristics, ideology and activity patterns.. The traditional way of keeping health is more concerned with health and life, coordination of nature and humanity, and self-cultivation. The further development of the traditional way of keeping health needs to meet the needs of modern people. Therefore, the traditional way of health preservation must be re-emerged as a modern health-care. The modern way of health preservation combines ecology, nutrition, and sports on the basis of traditional health-care concepts. Learning and other aspects of the theory, with the support of modern science and technology, in line with the starting point of meeting the psychological needs of modern people, modern health has become a life concept with the characteristics of the times.

#### **6.2 Development strategy**

##### **6.2.1 Scientific and rational planning**

The establishment of health tourism scenic spots is not a one-step process. It is necessary to formulate scientific and rational planning. In the choice of health tourism projects, environmental resources and people's demand for health tourism products should be considered, and the development sequence, development priorities and difficulties should be determined. The scientific evaluation method is used to evaluate the resource conditions and basic conditions of the health tourism development area, and the detailed market research on the characteristics of the health tourism products and the source market is carried out. After precise positioning, the scale of the development of health tourism is finally determined. And timing, and develop effective measures.

##### **5.2.2 Scientific screening of traditional health culture**

The traditional health culture also contains the dross and essence. In the choice of health tourism products, we should consider the essence of its dregs. The selected health tourism products must be active and motivated, suitable for long-term promotion and development. For example, China's traditional Chinese medicine health tourism involves many remedies recorded in ancient books. Some of these remedies have significant effects, but they are not suitable for most people. Therefore, when choosing these remedies, we must fully consider the universality, and After scientific and technical analysis, it can be put into the market.

##### **6.2.3 Combination of traditional health culture and modern health technology**

For the further development of health tourism, it is necessary to develop health tourism products according to local conditions and create a brand suitable for health tourism destinations. First of all, we must pay attention to the status of health culture tourism products in the whole tourism scenic spot products, pay attention to the deeper development of products, pay attention to the health culture as the core content, improve the grade of health culture tourism products, and further enhance the attention of tourists to the health culture; It is necessary to pay attention to the issue of visitor participation in the development of health culture tourism products, to increase the participation of tourists, to distinguish the differences between health culture tourism products and other tourism products through experience, and to provide tourists with some eye-catching and cultural products with health culture characteristics. The development of the final health tourism products should be matched with the surrounding tourism resources. The related facilities and layouts involved in the health tourism should be integrated with the surrounding ecological environment, so that visitors will

not feel awkward when they enjoy the health tourism products. The charm of traditional health culture.

### References:

- Dunn, H. L. (1961). High level wellness.
- Bernstein, N. (2012). Chefs, butlers, marble baths: hospitals vie for the affluent. *The New York Times*, 22.
- Dong Xiaoying, Zhao Huan, Lai Bonian. (2014). Research on the development of health tourism products in Zhongnan Mountain Area based on RMP analysis. *Hubei Agricultural Science*, 53 (08), 1976-1979.
- Lanjuping, Tian Manwen. (2013). Study on the Development Model of Health-preserving Tourism under the Visual Threshold of Non-scenic Tourism. *Journal of Zhejiang Normal University (Social Science Edition)*, 38 (06), 71-76.
- Liu Qingyu, Lu Ning. (2016). Development Strategy of Healthy and Healthy Tourism from the Perspective of Global Tourism. *Journal of Tourism*, 31 (11), 4-6.
- Liu Tiantian, Ma Jianzhang, Zhang Bo. (2013). Research on the development strategy of health tourism products in forest parks. *Academic exchange* (09), 119-122.
- Luo Yiling, Zhou Lingqiang, Liu Yabin. (2016). Study on the Construction Path of "Global" New Eco-countryside: Taking Wuyi Eco-health Tourism and Beautiful Rural Construction as an Example. *Eco-economy*, 32(02), 139-142.
- Wang Junfang, Yuan Tiexiang. (2015). Development of forest health tourism products - Taking Damingshan National Nature Reserve in Guangxi as an example. *Guangxi Forestry Science*, 44 (02), 194-199.
- Wang Yan. (2008). Comparison of basic theories of health tourism at home and abroad. *Research on technology, economy and management* (03), 109-110.
- Yang Fusha, Li Xin, Yan Yan, Zu Yanting and Zhang Ruihong. (2018). Analysis and Countermeasures of health tourism development in Dali, Yunnan Province. *Value Engineering*, 37 (02), 170-171.
- Yang Fusha, Yan Yan, Li Xin, Zu Yanting and Zhang Ruihong. (2018). Taking Dali, Yunnan Province as an example, the investigation and analysis of the development of health-preserving tourism with ethnic characteristics in Yunnan Province. *Value Engineering*, 37 (01), 216-218.
- Ye Chun, Li Yuan-ni, Yao Li. (2014). Classification and Evaluation of Health-preserving Tourism Resources from the Perspective of Traditional Chinese Medicine Theory: Taking Guizhou Health-preserving Tourism Resources as an Example. *Journal of Hainan Normal University (Natural Science Edition)*, 27 (04), 449-456.
- Zhang Zhiliang. (2016). Public analysis of health tourism for the elderly. *Journal of Tourism*, 31 (11), 10-11.

## **Service Marketing Mixed Strategy of Low Cost Airline's Domestic Passengers Routes of Passengers in Chiang Mai Province.**

**Ardchawin Jaikaew<sup>1</sup> Manop Chum-un<sup>2</sup> Pichaphob Panphae<sup>3</sup> Panida Satayopat<sup>4</sup>**

Business Management Department<sup>1</sup>  
Management Science Faculty, Chiang Mai Rajabhat University  
Chiang Mai 50300, Thailand  
Email: [ardchawinjk@gmail.com](mailto:ardchawinjk@gmail.com)

Marketing Management Program<sup>2</sup>  
Management Science Faculty, Chiang Mai Rajabhat University  
Chiang Mai 50300, Thailand  
Email: [manop.teya@gmail.com](mailto:manop.teya@gmail.com)

Master of Business Administration Program<sup>3</sup>  
Business Administration and Liberal Arts Faculty, Rajamangala University  
of Technology Lanna, Chiang Mai 50300, Thailand.  
Email: [pichaphob.pla@gmail.com](mailto:pichaphob.pla@gmail.com)

Business Management Department<sup>4</sup>  
Management Science Faculty, Chiang Mai Rajabhat University  
Chiang Mai 50300, Thailand.  
Email: [panidanuu@gmail.com](mailto:panidanuu@gmail.com)

### **Abstract**

The objective of this research is to formulate the competitive strategy of low-cost domestic airlines in Chiang Mai Province as well as problems and obstacles. The sample group included 400 passengers in Chiang Mai Province. The data were collected by questionnaires and used descriptive statistics consisting of percentage, mean and standard deviation to analyze data and applied qualitative research methods. The data were collected from unstructured in-depth interviews. The results revealed that the strategy formulation of products and services should continually pay attention to the cleanness of the planes, driving with softness both taking on and taking off. As a price, it should be determined interestingly and clearly in each period. For place, the payment system should be investigated for safety including a variety of channels for booking and buying tickets. For promotion, the media and information in public relations should be were attractive with the accumulating miles. As the aspect of people, the airline must create consciousness for the receptionists to take care of passengers, willingly, enthusiastic. For process, skill training, the employees have to be provided the skill training to deliver fast and impressive service. Lastly, physical evidence, the cleanliness of the plane and toilets must be paid attention perfectly.

**Keywords:** Service Marketing Strategy; Low Cost Airline's Domestic Passengers Routes; Chiang Mai Province

## **1. Introduction**

The operation of the airline business in Thailand after the liberalization of domestic air routes in 2001 resulted in many impacts. In the years of 2013-2015, the aviation industry experienced difficulties, which in 2016 was not the same with the year of 2013-2015. Although the airlines will be affected by the fall in oil prices, the aviation industry in Thailand has grown significantly. This is evidenced by the number of passengers traveling to the Airports of Thailand Public Company Limited and 31 Airports of Thailand during the year of 2012-2015 which grew by 15.2 percent per year (Kasikorn Research Center, 2016). It is compatible with the movement of the airline business entrepreneurs in Thailand aimed at increasing the size of the fleet and expanding the routes. The growth momentum is in line with the strong growth of the Southeast Asian airline industry. However, the major aircraft manufacturers have forecasted that over the next 20 years (2078) there will be more than 2,360 million passengers traveling to Southeast Asia, or a 6.0% growth higher than traveling to the world's destinations with the average of 4.8 percent per year, impacting the size of the growing Southeast Asian airline market from the originality. Therefore, it is noteworthy for Thailand to be ready enough to accommodate the growing opportunities for growth in the regional aviation industry for the foreseeable future. The airline business in Thailand is likely to continue to grow with the expansion of routes covering and linking to Southeast Asia based on such a circumstance. Thailand has the strengths that is having a central location on the mainland of ASEAN. It also has geographical proximity to neighboring countries such as Cambodia-Laos-Myanmar-Vietnam (CLMV), which is a group of countries being in the period of economic growth. If Thailand can develop as an air hub to connect CLMV with other countries around the world, it will bring many economic opportunities. However, it is still a very interesting issue for airports in crowded areas and likely to be unable to accommodate more passengers, Kasikorn Research Center expects that during the next 6 years, passengers who travel to the airport under Airports of Thailand Public Company Limited (6 airports) and 13 department airports (7) will have a total passengers of 238.4 million passengers in 2022 or an average annual growth rate of 9.5 percent with the passenger capacity in the same year of the 13 airports having 192.7 people annually (Kasikorn Research Center, 2016). So, Thailand needs to focus on developing airports with high numbers of crowded passengers, especially Suvarnabhumi Airport and Don Mueang Airport which are major strategic airports.

In addition, to increase the opportunity from the number of aircraft arriving to the airport of Thailand in the future, Thailand should create opportunities to become ASEAN Regional Aviation Hub because businesses are involved with the airport business, duty free business, and maintenance and production of aircraft part business. The aircraft parts are likely to have the opportunity to expand, especially low cost airlines have played an increasingly important role in the middle class people in the present and future. (Kasikorn Research Center, 2016).

The low cost airline business in Thailand has spread to influence on the lives people in the digital age, which cannot be denied that low cost airline business has changed the way of travel of middle income group being more convenient.

In the past, air travel cost was expensive. As a result, customers using air travel services were limited to high-income earners only. However, in the past 2-3 years, low cost airline business has played an important role in providing lower prices with the gap in the market penetration of middle income customers. Consequently, air travel has been more active both international and domestic travel among Thai and foreign passengers. Foreign traveler this reflects that the low cost airline business has played an increasingly important role in expanding the market for passengers traveling by air. Not only is it a cost-effective alternative for middle-income passengers, it is also a good choice for all levels of passengers. It provides high business opportunity for the mentioned businesses in the production of goods and services to support the customer base, the low cost airline business is likely to grow in the future. Due to the increasing competition of the low cost airlines, the increasing demand for travel has led to the expansion of the airline industry. The growth of Chiang Mai is as a tourist city that attracts a large number of visitors to Thailand, which is seen as more competitive in the aviation industry. Especially, low-cost airlines that require a variety of marketing strategies with the strong competition. If there is no enough study of how or competitive model competition, this may cause low income since modern consumers require good and fast qualified services. This is a reflection of the low cost airlines needing to increase their presence in the market. Accordingly, Chiang Mai is another area where the low cost airlines will increase their number of flights. This is evidenced by the fact that Chiang Mai International Airport uses the IATA Code as CNX as the northern region airport with its beautiful nature and its long traditions. Then, it has played an important role in the promotion of northern tourism promotion.

Additionally, Chiang Mai Airport is capable of handling 24 flights per hour, 8 million passenger and 35,100 tons of cargo per year. This leads to the intensive competition among low cost airlines: (1) Thai Air Asia is the low cost airline that offers the first economy airfares in Thailand, (2) Nok Air or Nok Mini is a domestic airline. It has launched special services such as cars and boats to transfer to domestic and international destinations, (3) Thai Smile is a brand of Thai Airways International's low fares which operates under the company and uses the same airline code as Thai Airways, (4) Kan Air is a domestic small airline, and (5) Orient Thai Airline, a small airline offering the different application of service marketing strategies to attract customers. It diversifies promotion to take advantage of market share to increase. It also offers the cheaper flight pricing than other airlines in each season and this can make the passengers to make decision faster to use its service. Moreover, it serves different services and diversification of facilitating travel (Yupa Wanawanich, 2011).

Therefore, the research team had the focus on the antecedents affecting the service marketing mix that leads to the decision to use the low cost airline service, the domestic routes of passengers in Chiang Mai, Thailand, and the behavior of passengers in using low cost services in Chiang Mai Province, Thailand. This will give priority to the airline business in solving the problems that need

to be addressed in order to survive under the fierce competition of the low cost airline business to develop the services to serve the passenger satisfaction

## **2. Research Objectives**

To determine the service marketing strategy of low cost airlines, domestic routes of passengers in Chiang Mai.

## **3. Literature Review**

### 3.1. Literature...review

As the service marketing mix theory, Kotler (2003) describes the service marketing mix is to find consumers purchasing behavior and consumer behavior either as a person, group, or organization to understand the nature of needs and buying behavior or experiences to satisfy the consumers because the service industry is different from the general consumer goods industry. This kind of industry provides tangible products and intangible and also are products and services offered to customers or markets in the present time. The service marketing mix strategies are applied to service businesses that are different from general marketing, especially the business that welcomes customers and makes them impress on hospitality since it is the main key of modern business (Kotler, 2000) as follows:

1. Product is what meets the needs and needs of humans, and what the vendor must provide to the customers and the customers will receive the benefits and values of the product. Products are divided into 2 types: (1) Tangible Products and (2) Intangible Products.
2. Price is the product value as in money. Customers will compare the value of the service with the price. If the value is higher than the price, the customer will decide to buy. Therefore, the pricing of services should be appropriated to the clear service level and be easy to classify different service levels.
3. Place is an activity related to the environment providing services to customers. This affects the perception of customers in the value and benefits of the services offered which should be considered as the location and the channel in the service.
4. Promotion is one of the most important tools for communication. The purpose is to inform or induce attitudes and behaviors, the use of the service and the key to the marketing connection.
5. Physical Evidence is a physical representation and presentation to the customers as concrete by trying to create quality, including physical thread and service model, to create value for customers whether it is a clean dress, gentle negotiations, and fast service or other benefits that customers should receive.
6. People or employees, which relies on the selection of training, motivation to be able to satisfy the customer differently than the competitors. It is the relationship between staff and service users. The organization must be able to respond to the users, have the initiative to be able to solve the problem which can create values for the organization.
7. Process is activity that involves procedures and practices in the service area to provide the service to the users quickly and make the user impress.

According to the decision making theory by Kotler (2003), he states that decision making is the process of choosing to do one of the alternatives. Consumers always have to make choices about their products and services by choosing the goods or services based on the information and limitations of the situation. Decision making is an important process and within the minds of consumers.

Therefore, the service marketing mix is classified into seven categories: product, price, place, promotion, physical evidence, person or employee and process which result in making decision of the consumers (Yupawan Wanwanich, 2011; Kotler, 2000; Zeithaml, Bitner, Gremler, 2013)

#### 4. Research Methodology

Data collection for the study on antecedents affecting on service marketing mix toward the decision making in selecting domestic flights of low cost airline among passengers in Chiang Mai Province, Thailand. The researchers reviewed the research papers, document, textbooks from various sources to analyze and synthesize relevant variables to frame the research concept. Creating the questionnaire and submitted to 3 experts who provided content guidance for Item-Objective Congruence Index (IOC). After that, the questionnaire was reviewed and tried out with 30 similar sample groups before collecting the actual data. The Cronbach's alpha coefficient was 0.859. The overall research instrument had Cronbach's alpha coefficient value of 0.893. The data were analyzed by the descriptive statistics for percentage and standard deviation. Inferential statistics were used to analyze the relationship of antecedents affecting the decision to use the service by using Multiple Regression technique with Enter method. Then, the questionnaire was collected from 400 samples by random sampling and qualitative research methods collecting data from in-depth, unstructured interviews

#### 5. Results

**Table 1** The mean, standard deviation and the opinions' level of opinions on the service Marketing mix factors towards the selection of low-cost airline services, domestic routes of passengers in Chiang Mai Province as a whole

Service Marketing Mix Factors	Mean ( $\bar{x}$ )	Standard Deviation (S.D.)	Opinions' Level
1. Product	3.04	0.92	moderate
2. Price	3.08	0.98	moderate
3. Place	3.18	1.02	moderate
4. Promotion	4.01	0.92	much
5. People	3.14	0.95	moderate
6. Physical Evidence	3.12	0.97	moderate
7. Process	3.25	0.97	moderate
Overall Opinions	3.26	0.96	moderate

From Table 1, the data on service marketing mix factors in choosing the service of the low-cost airline in domestic routes among the passenger in Chiang Mai Province in the overall picture found that the sample group provided opinions at the moderate level ( $\bar{x}$  =3.26, S.D.=0.96). When considering in each aspect of the service marketing mix factors found that the sample group rated the most opinions on the service marketing mix factors in promotion with opinions at the high level ( $\bar{x}$  =4.01, S.D.=0.92), followed by process ( $\bar{x}$  =3.25, S.D.=0.97), place

(( $\bar{x}$ ) =3.18, S.D.=1.02), people (( $\bar{x}$ ) =3.14, S.D.=0.95), physical evidence (( $\bar{x}$ ) =3.12, S.D.=0.97, price (( $\bar{x}$ ) =3.08, S.D.=0.98), product and service (( $\bar{x}$ ) =3.04, S.D.=0.92), respectively.

The opinions on the service marketing mix factors revealed that the sample group had the highest opinions on the newness of the aircrafts with a moderate level (( $\bar{x}$ ) = 3.18, S.D.=1.05), followed by a moderate level of driving with softness at the same level (( $\bar{x}$ ) = 3.17, S.D.=1.03), the least important level was the diversity of the flight routes (( $\bar{x}$ ) =2.77, S.D.=1.27). The overall summary of the product metrics is at the moderate level (( $\bar{x}$ ) = 3.04, S.D.=0.92).

The opinions on the service marketing mix factors in choosing the service of low cost airlines in domestic routes in terms of price, showed that the sample group had a lower level of opinion on ticket rates than other airlines while buying at the same time as most with a moderate level of opinions (( $\bar{x}$ ) = 3.18, S.D.=1.09), followed by price which was about the clarity, details of the ticket price and it was rated with a moderate level of opinions (( $\bar{x}$ ) = 3.12, S.D.=1.06), and the least opinion level was that the ticket rate was appropriate for the airline route with the same opinions at the moderate level (( $\bar{x}$ ) = 3.00, S.D.=1.21). The overall overview of the price metric is at a moderate level (( $\bar{x}$ )= 3.08) and has an average standard deviation (S.D) as 0.98.

The opinions of the service marketing mix factors in place indicated that the sample group had the highest opinions on the payment security of the ticket through the website using the credit card with a moderate level of opinions (( $\bar{x}$ ) = 3.33, S.D.=1.08), followed by a variety of channels for booking and or buying tickets with the same level as moderate (( $\bar{x}$ ) = 3.28, S.D.=1.12) and the least level of opinions was the convenience of buying tickets through the dealer (( $\bar{x}$ ) =3.01, S.D.=1.20). The overall overview of place metric has the mean as a moderate level (( $\bar{x}$ ) =3.18) and the average standard deviation (S.D) is as 1.02.

The opinions of the service marketing mix factors in terms of promotion, it was revealed that the sample group had opinions on the attractiveness of public relations news with a high level of opinions (( $\bar{x}$ ) = 4.25, S.D.=1.10), followed by the interest of sales promotion by mileage accumulation or travel accumulation, with a high level of opinions (( $\bar{x}$ ) = 4.10, S.D.=1.13) and the least level of opinions was providing promotion information is interesting and provide clear details with a high level of opinions (( $\bar{x}$ ) = 3.90, S.D.=0.96). The summary is the promotion has a moderate mean (( $\bar{x}$ ) = 4.01), and the average standard deviation (S.D) is as 0.92.

The aspect of people for the service marketing mix factor in choosing to use low-cost airline services, domestic routes, it was found that the sample group had the highest opinions on the attentive care of the flight attendants, with a moderate level of opinions (( $\bar{x}$ ) = 3.17, S.D.=1.06), followed by flight attendants are friendly and the beautiful and impressive uniforms with a moderate level of same opinions (( $\bar{x}$ )= 3.16, S.D.=1.06 and 1.05) and flight attendants give advice and demonstrations on the use of security equipment with the least level of opinions with a moderate level of opinions (( $\bar{x}$ ) =3.11, S.D.=1.08). The overall summary of people metric has a mean at a moderate level (( $\bar{x}$ ) = 3.14) and the average of standard deviation (S.D) is like 0.95.

The service marketing factors in choosing to use low-cost airline services, domestic routes as the aspect of process, it revealed that that the sample group had a high level of opinions on the speed of coordination, assistance, and service for customers and the number of flight attendants was sufficient for the service with a moderate level of opinions (( $\bar{x}$ ) = 3.40, S.D.=1.06 and S.D.=1.05), followed by accuracy in receiving and or recording the ticket booking information with the same opinion level in moderate (( $\bar{x}$ ) = 3.22, S.D.=1.11) and the speed of notification in the case of plane delays, with the least level of opinions based on a moderate level (( $\bar{x}$ )



=3.14, S.D.=1.06). The overall summary of process metrics has a mean at a moderate level ( $\bar{x}$ ) = 3.25) and the average of standard deviation (S.D) is as 0.97.

The service marketing factors in terms of physical evidence, it indicated that the samples had opinions on cleanliness within the aircraft's toilets, and the number of seats on the plane was appropriate and the most comfortable sitting with the moderate level of opinion ( $\bar{x}$ ) = 3.31, S.D.=1.04; S.D.=1.06 and S.D.=1.08), followed by the beautiful placement in the place which was tidy, having a medium level of opinions ( $\bar{x}$ ) = 3.08, S.D.=1.07) and the beauty of the symbol and slogan of the airline were rated as the least opinion level. The level of opinion was at a moderate level ( $\bar{x}$ ) = 2.90, S.D. =1.22. The overall summary of physical evidence characteristics metric has a mean level at a moderate level ( $\bar{x}$ ) = 3.12) and has an average standard deviation (SD) as 0.97.

The strategy formulation for products and services must always be seriously on the cleanliness, driving the plane with both softness and landing. The price in each period should be interesting and clear. The place, the payment system should be investigated continuously for the safety including there should have a variety of channels for booking and buying tickets. For the promotion of the media and information in public relations should have attractiveness and should have the campaign for accumulating miles. As the aspect of people, the airlines must create consciousness for the flight attendants to take care of the passengers willingly, enthusiastic and the process of skill training should train got providing fast service and impressive. Lastly, physical evidence, the cleanliness of the aircraft and toilets has to be more paid attention.

## 6. Discussion and Conclusion

The overall opinions on the study of service marketing mix factors in choosing to use low-cost airline services, domestic routes of passengers in Chiang Mai Province had the mean at a moderate level, but the aspect of promotion had the highest mean. This result is consistent with the study of Saraswati Chaksurak and Methavee Thammakesorn (2017) that found that the sample group gave the most important for making the promotion on air ticket price reduction. This information, the sample will pay special attention to the interest of public relations information by attracting the need to use the service. As for the process of providing services, it is another factor that gives a second priority. While the study of Jenjira Nathongkham (2017) found that the physical evidence and presentation factors had the most influence on the intention to use the service repeatedly. However, it contradicted the study of Jirayu Aksorndee (2011), revealed that the service marketing mix factors influencing the decision to choose to use the airline in the country were the airline service process in particular, the process of providing convenience to passengers who are able to purchase, pay for tickets, reserve seats, check-in and others on their own, with machines or tools that can be operated 24 hours a day. It can be operated via the application website, on smartphones, which is close to this research that the sample rated the second highest level of feedback after marketing promotion.

For determining the service marketing strategy of low-cost airlines, domestic routes of passengers in Chiang Mai in terms of products and services, the aircrafts must be cleaned and bright, consistent with the study of Vibhavadi Topiya (2018) on service marketing mix strategy of low cost airlines in Thailand: Case study of Thai Lion Air, Nok Air, and Air Asia. It revealed that the first factor that customers considered in purchasing decisions was the marketing mix of physical evidence; every touchable device should be clean, driving the plane with both softness for taking

off and taking on, determining the price in each period to be interesting and clear. Like the place, the payment system should be checked regularly for safety, including a variety of channels for booking and buying tickets.

This is in line with Natthaphong Prakopdee (2013), studied the service strategies of low-cost airlines in order to gain a competitive advantage in the aviation industry. The findings were Distribution channel stimulation requires reservation or payment via the internet in order to provide convenience to passengers using the service. It was also considered to stimulate demand for another form for providing convenience to passengers using the service. As the promotion, creating media and information in public relations with attractiveness and accumulating miles can attract more passengers. People must create consciousness for the receptionist to take care of passengers willingly, enthusiastically, in the same way as the study of Supakrit Ariyapreecha, Rattaphong Sornsuphap and Duangporn Apasilp (2017) who studied the low-cost airline strategy in the ASEAN Economic Community, the results showed that the airline should create reliability in the management of airlines with safe, timely flights using convenient communication technology to access. The staff should have a willingness to serve. The people should be trained for fast service skills with impression and physical evidence must pay attention to the cleanliness of the aircraft and toilets.

## 7. References

- Jenjira Nathongkham. (2017). *The Influence of Marketing Factors on the Intention to Use the Repeated Service of Low Cost Airlines*. Faculty of Business Administration. Rajamangala University of Technology Thanyaburi.
- Jirayu Aksorndee. (2011). *Marketing Factors Influencing the Level of Satisfaction in Choosing to Use Airline Services in Thailand on Domestic Flight Routes*. Faculty of Business Administration Bangkok University.
- Kasikorn Research Center. (2016). Kasaetud.No.2789.  
<https://www.kasikornresearch.com/th/Pages/index.aspx> (03,20, 2017)
- Kotler, P. (2003). *Marketing Management*. New Jersey: Prentice-Hall.
- Kotler, P. (2000). *Marketing management: Analyzing consumer marketing and Buyer behavior (The Millennium)*. New Jersey: Prentice Hall.
- Natthaphong Prakopkarndee. (2013), *The Low Cost Carrier'Strategy to Gain an Advantage Competition in Aviation Industry*. *Srinakharinwirot Research and Development Journal (Humanities and Social Sciences)*. Year 5, Issue 9, January-June 2013. Page 56-66.
- Saraswati Chaksurak and Methavee Thammakesorn. (2017). *Factors Related to the Selection of Thai Airline Service in the Area of Bangkok*. College of Tourism and Hospitality. Sriprathum university.
- Supakrit Ariyapreecha et. al. (2017). *The Strategy of Low-Cost Airlines in the ASEAN Economic Community*. *Journal of the Humanities and Social Sciences*. *Royal Thai Air Force*, Volume 5, Year 5. January-December 2017. Page 25-33.
- Vibhavadi Topiya. (2018). *Service Marketing Mix Strategies of Low-Cost Airlines in Thailand: Case Study of Thai Lion Air, Nok Air, and Air Asia*. *Academic Journal*. *Suvarnabhumi Institute of Technology Humanities and Social Sciences*. Special Issue, September 20<sup>th</sup>, 2018. Page 252-270.

Yupawan Wanwanich. (2011). *Marketing Service. Bangkok: Kasetsart University Publishing.*  
Zeithaml, A. V., Bitner, J. M., & Gremler, D. D. (2013). *Services Marketing: Integrating Customer Focus Across the Firm.* (6th. ed.). New York: Mc-Grew-Hill.

# **Bhutan's Road Infrastructure and Its Effect on Tourism and Local Businesses**

**Choki Dorji<sup>1</sup>, Christopher James Cook<sup>2</sup>, and Sopit Jenpradab<sup>3</sup>**

English for Business Communication Program<sup>1</sup>  
Naresuan University International College  
Phitsanulok 65000, Thailand  
Email: chokidorji15@gmail.com

English for Business Communication Program<sup>2</sup>  
Naresuan University International College  
Phitsanulok 65000, Thailand  
Email: chriscookpps@hotmail.com

English for Business Communication Program<sup>3</sup>  
Naresuan University International College  
Phitsanulok 65000, Thailand  
Email: sopitj@nu.ac.th

## **Abstract**

This study aims to provide a better understanding and identify the aspects of transportation system in Bhutan affecting the local business people as well as the tourists' level of satisfaction. Data were collected from 430 respondents using questionnaires. The results of this study indicated that local businesses were unsatisfied with the transportation system and management which is needed to improve because it affects their business. In contrast, the tourists were satisfied with the transportation system but some roads and physical services need improvement. Additionally, they also feel comfortable whilst staying in Bhutan because most Bhutanese are friendly and willing to help as well as the informative details and services provided. Thus, the researchers recommended that the government should focus more on improving transport system so the local business can benefit on it. Moreover, for further research, more number of respondents should be investigated as to improve the service quality.

**Keywords:** Bhutan Transportation system; tourists' satisfaction; local business satisfaction

## **1. Introduction**

It is hard to imagine our society without transportation. Almost everything we do has transportation involved. From our perspectives, everybody travels by foot, by car, or by other means. Most people travel in order to work, shop, see friends and even to spend some of their leisure time abroad. There are many popular destinations for tourists to visit in the present, Bhutan is one of them.

“Bhutan is a small, landlocked kingdom in the Himalaya Mountains of South Asia. It borders China (Tibet) on the north and India on the west, south and east. The population in the country is comprised of a few different ethnic groups, with the largest being Bhutanese or Tibetan people and a minority of people of Nepalese ancestry (Nyaupane & Timothy, 2010, p.978). Bhutan has recently opened up to the outside world, with very little contact with any other nations

besides India and Tibet until the 80s and 90s. Its history of physical and geopolitical isolation has helped preserve a very unique Himalayan culture, including food, dress, cultural landscape, architecture, Buddhist religion, and language.

Under opening up the country for the outside world situations, transportation is very crucial because it connects several destinations and carries people, goods, and services in both within nations and around the globe. Tourism is all about travel; and the role of transportation in its operation is essential. The world has seen tremendous increases in tourism mainly because of improvement of transportation system. Additionally, the delivery of high quality service has therefore become a marketing instrument as a result of competitiveness business world. Moreover, Culpan (1987) also identified transportation modes and management as the “important ingredients of the international tourism system,” acknowledging that linkage by air, sea and land modes is essential for the operations as well as the availability of support services such as fuel stations, auto repair, motels and rest facilities for land travel.

In Bhutan, the modes of transportation available are road (car, bus, and bike), air (flights international and domestic), and trail path (horse, bicycle, yak, etc.). So, transportation plays a vital role in Bhutanese’s life. Under this circumstance, easy access to good transportation and good service quality can have a huge impact to local business people and tourism because these matters play a vital role in the economic development of the country (Tourism Council of Bhutan, 2016). However, according to the Tourism Council of Bhutan in 2016, there are some problems regarding the service quality such unfair prices by the drivers, few trustable guides, wrong destinations’ information, communication barrier and low quality hospitality service. So, because of these crucial roles of tourism and transportation that might affect a country development, it is significant to identify and study the tourist and business sectors’ opinions toward the present transportation system and services in Bhutan as to provide this updated data for further development in the country.

## **2. Research Objectives**

The purpose of this study is to identify aspects of the transportation system and services in Bhutan which cause problems for local business people and affect the tourists’ satisfaction with their travel in Bhutan.

## **3. Literature Review**

### **3.1 Transportation**

Transportation in its simple meaning is to carry passenger from one point to another. When transportation is considered from a tourism frame, it simply refers to carrying tourists from their place of living to the place where the touristic products are introduced to them (Soruphia, 2005, p.169). According to Culpan (1987, p 546), the transportation modes and management was identified as the “important ingredients of the international tourism system,” acknowledging that linkage by air, sea and land modes is essential for the operations as well as the availability of support services such as fuel stations, auto repair, motels and rest facilities for land travel. Moreover Kolter and Kavin (2008) also suggested that external factors, such as alternative services like private services and private vehicles strongly influence the frequency of traveling and timing along with convenience and comfort as well as social status.

Service has become very crucial in all business industries due to globalization brought by particularly by the development of the IT industry and communication services. However, service

is not bound only to service based businesses such as banks, telecommunications, hotels, restaurants and beauty salons; it is also important as a strategic tool in all companies' efforts in gaining competitive advantage according to Angelova and Zekiri (2011).

### 3.2 Trail to road transaction

According to Ito (2011, p.2), "Bhutan was an inhabited wilderness until 1961, when road construction started after the closure of the Tibetan border." However, Bhutan is undergoing rapid economic development; the road network has expanded from the Indian border, often tracing traditional trails. This has accelerated commerce as well as movement of people from India, benefitting both the Bhutanese and foreign tourists. At the same time, dependence on imported automobiles and fossil fuel has risen, and roadless areas have begun to shrink. This brought an inevitable loss of traditional environmental knowledge, such as the care of mules for packing, and reduction in physical and mental health among the Bhutanese.

Moreover, Ito (2011, p.2) also suggested that people who lost jobs as horsemen moved into towns to find jobs. Road extension is also a double-edged sword for visitors. The consequences where destruction of forest which resulted in decrease of trekking area and loss of traditional cultural value, both of which have been sacrificed in order to achieve easy access. Protected zone often function as fortifications against mechanical civilization. However, protected-area status or its zoning does not assure that an area will remain roadless where there is considerable resident population.

### 3.3 Different modes of transportation in Bhutan

According to Ministry of Information and Communications Royal Government of Bhutan (2014) and Yeshe, J., a Chief Engineer (Design Division), Department of Roads Ministry of Works & Human Settlement Royal Government of Bhutan (2014), road, air, walking, ponies, and bicycles are the modes of transportation used in the country. Because of the topography of the country, there is no railway network in Bhutan.

#### The airline industry

According to Ministry of Information and Communications Royal Government of Bhutan (2014), Bhutan is a small and landlocked country located in the eastern Himalayas with a total land area of 38,394 square kilometers and a population of 683,407 (Census, 2009). Air transport is important to the nation as it plays a vital role in the economic development of the country. The airline industry was established by Royal decree in 1981 and Bhutan's national carrier Drukair Royal Bhutan Airlines (Drukair) began operations in 1983. For the last three decades, Drukair was the only airline in Bhutan. However, the government has been encouraging competition and Bhutan Airlines (Tashi Air Pvt Ltd) started operating for domestic service initially and in October 2013 started operating in international sectors. Bhutan airline is connected with 7 countries (India, Nepal, Bangladesh, Thailand, Myanmar, the Maldives, and Singapore) and operates in 10 cities in 5 countries.

#### Paved Roads

Bhutan did not have paved road until 1961, (Freeman & Jackson, 2012, p.138). Even today, only the major thoroughfares are paved. Recent estimates state that only half of all the roadways in Bhutan are paved. According to the Central Intelligence Agency, only 4,991 km of 8,050 km of road are paved (Bhutan, 2011). Despite this, the number of vehicles in Bhutan has grown, especially in urban areas like Thimphu and Phuentsholing. Cars and trucks are the main form of transportation because of the lack of a rail system, and Bhutan has only two airports.

Moreover, according to the Bhutan National Human Development Plan Report 2000, Bhutan has 3,636 kilometers of road network, and further road extension is proposed recognizing their environmental impacts. “Bhutan 2020” Planning Commission of Bhutan mentions concern on social impacts of road construction saying that some villages, located along mule tracks will become redundant when nearby roads have been constructed. Nevertheless, priority is put on transportation development as expressed as follows, 75% of the rural population lives within half a day’s walk from the nearest road now and an expanded system of feeder roads will transform the lives of many who have traditionally lived in isolation. Recent government policy as stated in the Economic Development Policy of the Kingdom of Bhutan (2010) mentions such words as tunnels, electric train, ropeways or cable car network, and helicopter operations. These transportation facilities are not only for residents but also for visitors.

These changes are making the journey for the tourist in this mountainous terrain really pleasant as noted by Nyaupane and Timothy (2010) when writing about tourism policy in Bhutan. The Annals of Tourism Research reports that latest model Japanese Toyota cars, Land Cruiser, Hiace Buses, and Coaster Buses are offered to the tourist depending upon the group size. Experienced, courteous drivers are well trained and licensed by Department of Tourism and the Department of Motor Vehicles in safety and driving on mountainous terrain. Today, tourists can be at ease riding in the Bhutan’s mountains. In addition, there is a guide to accompany the tourist right from arrival until departure.

#### Rail Transport System

There is no railway network in the country. The Royal Government of Bhutan and Government of India signed a Memorandum of Understanding for railway links to the five border towns in Bhutan from the nearest railheads in India. One of the links includes a 17.5km track to connect Hasimara (in West Bengal) to Phuentsholing in Bhutan. Survey of the five links was carried out in 2007/08 and the two Governments have been working to implement the project. Feasibility study for the internal railway network is also being considered.

### 3.4 Growth of Transport for Tourism

Transport for tourism has grown substantially within the past four decades. The two most important modes of travel serving tourism are air travel and the private motor car. Air travel grew rapidly during the early stages of mass tourism, recording annual increases of between 10 and 17%, and thus supporting the rapid development of many new destinations (Holloway, 1989; Shaw, 1990). Whilst international forecasts of air travel suggest a slowing down of the rate of growth, the market is still expected to increase. For example, major airports estimate passenger arrivals to rise by 3–4%, per annum during the coming decade, partly fuelled by increases in national Gross Domestic Products in generating countries, and partly by a switch in household expenditure away from consumable products to recreation and tourism according to Chataway (1996). The motor car has witnessed an equally spectacular growth rate during the past four decades. There has been a tenfold global increase from 53 million vehicles registered in 1950 to 500 million recorded in 1992. Within this context, the highly motorized countries of Western Europe and North America generate the majority of tourism related trips and the car remains a significant mode of travel for domestic tourism in developed economies. In Britain, it is estimated that the car (including hired cars) is the most frequently used form of transport for all holidays, accounting for 74% of all domestic holidays’ trips.

There are two fundamental issues that the Bhutanese is facing. Firstly, the relationship between transport and tourism tends not to be integrated into an overall policy process for sustainable development (Lamb & Davidson, 1996). This is apparent at all levels of planning, including at the destination. Transportation and highways authorities plan strategic transport

development, whilst national and regional tourism authorities set out a framework for tourism policy, and there are often only limited connections between the two components. At best, the mutual linkages are recognized in the planning documentation, but for the most part the translation of policy into practice is afforded by different organizations and often there is a variance between professional values, methods and approaches (Goodwin, et al., 1991). Secondly, despite the broad recognition that increasing transport for tourism is a source of environmental degradation, current transport and tourism planning frameworks continue to prioritize energy intensive modes of travel. Resources are still devoted to large-scale projects which encourage domestic car-borne travel and cross-border trips by air in the medium-haul market. In terms of shorter distance travel, investment in this category has been heavily weighted towards the motor car. Thus, for the most part, car and air travel under-pin the tourism system in both the transitory and destination elements of visitation. This imbalance has resulted in a negative trade-off for other modes, which make up the overall transport system.

#### **4. Research Methodology**

##### **4.1 Population and Sample**

In this study, the researcher has applied the simple random sampling method. The researcher was randomly selected tourists for 7 days as to collect data. The sample was drawn from the international tourists traveling in Bhutan from August 2018 to December 2018. According to the record of Tourism Council of Bhutan (2017), a total of 62,272 international leisure arrivals alone were recorded in 2017 which is the highest number till date. Thus, this number was calculated by using Taro Yamane's (1973) formula with 95% confidence level. After calculating the number of sampling, the sample size was consisted of 400 international tourists and 30 shop keepers as the population in the study.

##### **4.2 Research Instruments**

In order answer the questions of this study, there are 2 questionnaires which were used to collect the data: The Tourist Transportation Satisfaction Questionnaire and the Shop Keeper Transportation Questionnaire. Both questionnaires applied a 5 point Likert rating scale: strongly agree, agree, neutral, disagree, and strongly disagree.

##### **4.3 Research Procedure**

In this stage, there are two main stages: before distributing the questionnaires and during collecting data. The first stage is before distributing the questionnaire. The researcher has designed the questionnaires which will be used in the collecting data process later. After having designed the questionnaires, the questionnaires were reviewed for content validity. During collecting the data stage, the participants were informed about details of this study as well as their rights in attending this study first. Also, they were informed that their responds will be kept confidentially. After informing the participants, the questionnaires were distributed to the tourists or employee one by one. They were given for 15 minutes to answer the questionnaire. The questionnaires were collected and analyzed by the researcher.

##### **4.4 Data Analysis**

Once the questionnaires were collected and tabulated statistical analysis were carried out using mean and standard deviation; the results were also ranked for the most important transportation problems. The SPSS program was also employed for statistical analysis.

#### **5. Results**

This section presents the data collected and results of the study. The research questionnaires were answered by the tourists who came to attend Tshechu festival and local shopkeepers in Bhutan. The research is based on how transportation services in Bhutan affect tourism and local Business. In this study 30 local shopkeepers and 400 international tourists were



asked to answer the questionnaires and collected data to come up with following results. Thus, there are 430 respondents in this study. The data will be presented by starting from Local shopkeeper and then international tourists.

### 5.1 Local Shopkeeper

Based on the collected data, the information of shopkeepers emphasizing on ages is shown below.

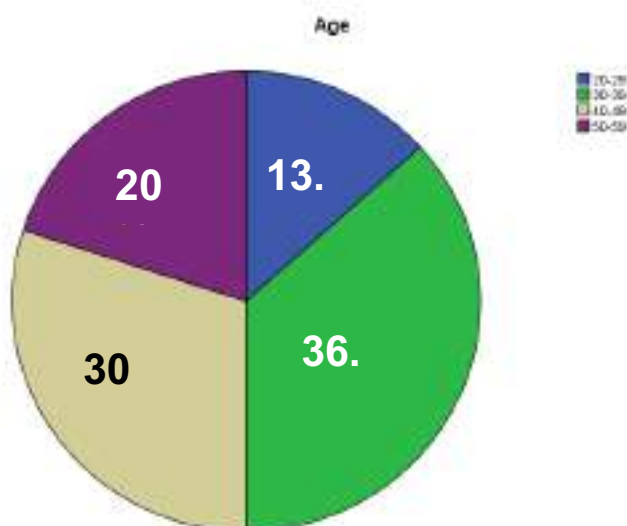


Figure 5.1 Ages of respondents

From the figure 5.1 above, it represents that there are 30 respondents in this study and it also shows what age group of local shopkeepers is using transportation services in Bhutan. From the table above it shows that 13.3 percent falls under age group 20-29, 36.7 percent is under age group 30-39, 30 percent is under the age group 40-49, and 20 percent is under the age group 50-59.

As the researchers have collected the questionnaires and analyzed all data, the data about how local shopkeepers are affected by the transportation services in Bhutan is shown below.

Table 5.1: How local shopkeepers are affected by the transportation services in Bhutan.

Description	N.	Mean	St. Deviation	Meaning	Rank
Cost for transportation of goods is reasonable	30	2.77	1.073	Neutral	7
Railway system would help shops with delivery of goods	30	3.77	1.104	Agree	3
Improving transportation system can help your shop	30	4.10	.855	Agree	2
Current transportation services are reliable	30	2.37	.999	Disagree	8
Need improvement for road transportation	30	4.13	.900	Agree	1
Transportation in Bhutan need proper management	30	3.67	.959	Agree	5

Improving transportation will attract more tourist	30	3.63	1.159	Agree	6
Importance of access to road network for shop	30	3.70	1.179	Agree	4
<b>Total</b>		<b>3.51</b>	<b>0.88</b>		

The table 5.1 shows how 30 (N) respondents are affected by transportation service in Bhutan. The researchers applied class interval formula from Likert scale. The average mean and standard deviation are  $\bar{x} = 3.51$  and  $SD = 0.88$  respectively. In the table, it shows the need of improvement for road transportation with respondents securing mean at 4.13 which indicates that the shopkeepers agree with the needs of improvement for road transportation. With the mean of 4.10 it shows that the respondent agrees in improving transportation can help their shop. With the mean 3.77 the respondents agree that Introduction of railway system can help the shops with delivery of goods. The respondents also agree that it is very important for a shop to have a proper road network access with the mean 3.70. With the mean of 3.67 it shows that the respondents agree or unsatisfied that transportation service in Bhutan is not managed properly. The respondent agrees that improving transportation system can help attract more tourists with the mean of 3.63. With the mean 2.77 most of the respondents feel neutral towards the cost for transportation of goods. However, the respondents find that there is a need for improvement of transportation service as they disagree with the mean of 2.37 in which the current transportation service is not reliable.

### 5.2 Tourists

Based on the collected data, the information of tourists emphasizing on ages is shown below.

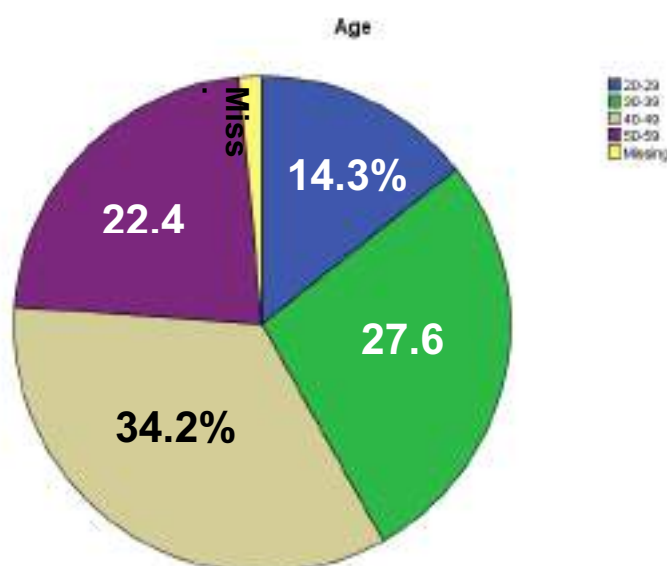


Figure 5.2: Age of respondents

From the figure 5.2 above, it illustrates that there were 400 respondents who answered the questionnaire. It shows the age group classification of international tourists. From the figure, it can be concluded that 14.3 percent of respondents are between the ages of 20-29, 27.6 percent

are between the ages of 30-39, 34.2 percent are between the ages of 40-49, and finally 22.4 percent are between the ages of 50-59.

So that, in order to fulfill the research objectives, the table below shows the data that the researches have analyzed from the collected questionnaires which the tourist respondents have answered. It represents how transportation service in Bhutan affects international tourist.

Table 5.2: How transportation service in Bhutan affects international tourist

Description	N	Mean	St. Deviation	Meaning	Rank
Transportation services are up to expectation	400	2.59	1.259	Disagree	10
Service provided by tour operator is good	400	3.06	.978	Neutral	8
Service provided is trust worthy	400	4.01	.854	Agree	4
Bhutanese people are friendly	400	4.22	.717	Strongly agree	1
No language barrier	400	2.96	.985	Neutral	9
Willingness of local people to assist	400	4.21	.787	Strongly agree	2
Good safety and security for tourist	400	4.02	.1.202	Agree	3
Transportation price is reasonable	400	3.64	1.091	Agree	7
Good hospitality by driver and guide	400	3.91	.944	Agree	6
Information given by tour operator are true	400	3.95	.890	Agree	5
Road network in Bhutan well connected	400	3.06	1.076	Neutral	8
<b>Total</b>		<b>3.96</b>	<b>1.078</b>		

From the table above, it represents how 400 respondents in this research are affected by the transportation service in Bhutan. The average mean and standard deviation are  $\bar{x} = 3.9$  and  $SD = 1.076$  respectively. With a mean at 4.22, the respondents strongly agree that the Bhutanese people have friendly nature and are very sociable. The respondents find local people to be very kind as they were happy to assist anytime and strongly agree or satisfied with their assistance with  $\bar{x}$  4.21. The respondents agree that the safety and security provided for the tourist are also good and reliable with a mean of 4.02. With a mean of 4.01 the respondents agree that the service provided by the operator is trust worthy and reliable. The respondents agree that the information provided by the operator is reliable and trustworthy with a mean of 3.95. The tourists find the hospitality provided by the guide and driver to be good as they agree with a mean at 3.91. With the mean at 3.64, the respondents are satisfied and agree that the price for transportation is fair and reasonable. The respondent's remains neutral with a mean at 3.06 for the service provided by the tour operator is worthy or not. With the mean at 3.06, the respondents remain neutral to whether road network in Bhutan are well connected or not. Although Bhutan have high literacy

rate, there is still little language barrier as the respondents remain neutral with a mean at 2.96. Transportation service are not good as the respondent disagree with a mean at 2.59 which shows that there is need to improve the transportation service which are currently available or introduce new service which is not available at present.

## **6. Discussion and Conclusion**

The findings can be discussed into two aspects: local businesses' satisfaction and international tourists' satisfaction. From the collected data, it is revealed that there were 430 total respondents in this study: 400 respondents were the international tourists and 30 respondents were local businesses in Bhutan. Most local respondents' lies in the range of ages 30-39 with 36.7 percent whereas most international tourist respondents' lies in the range of ages 40-49 with 34.8 percent. So, in both groups of respondents, the ranges of their ages are 30-39 and 40-49, respectively.

Based on the results, the findings indicated that most of local shopkeepers agreed upon each other that there is a need of improvement for road transportation, transportation system and services because improving transportation can help their business and attract more tourists into the areas. They mentioned that it is very important for shops to have proper road network to access. However, these findings are quite contrast with the needs of people in the areas. As Ito (2011, p.2) stated that road extension is like a double-edged sword for visitors. The consequences where destruction of forest which resulted in decreasing of trekking area and losing of traditional cultural value, both of which have been sacrificed in order to achieve easy access. So, in this case, it means that if the government has to improve and extend the roads, some more areas might have to sacrifice and lose some traditional cultural value in exchanging of having more tourists coming and developing the economics of country. Additionally, the local shopkeepers also suggested that the railway can help the shops with delivery of goods, but there is no railway network in Bhutan because of the topography of the country (Department of Roads Ministry of Works & Human Settlement Royal Government of Bhutan, 2014). Besides, the project of constructing the railway within Bhutan that proposed by the Royal Government of Bhutan and Government of India is under consideration.

According to the results, most international tourists strongly agreed upon each other that Bhutanese people were friendly and always willing to help and assist them. Moreover, they also satisfied with the transportation and tourist services in Bhutan such as the transportation fees are cheap comparing to other countries and tourist materials are also informative and useful making them more comfortable and open. Additionally, they also perceived that the tour guides and drivers provided a good hospitality for the customers. By those findings, it parallels with Nyaupane and Timothy's statements that the experienced, courteous divers are well trained and licensed by Department of Tourism and the Department of Motor Vehicles in safety and driving on mountainous terrain (2010). Thus, it can be understood that most drivers in Bhutan were trained and licensed which results in providing trustworthy services for customers at least. Moreover, the tourists did not mention any problems about communication barrier, low quality hospitality service, or wrong information about destination as stated by the Tourism Council of Bhutan (2016). Most of them perceived that tour guides and drivers provided a good hospitality as well as true information given by the tour operator. Thus, it contrasts with statement raised by Tourism Council of Bhutan in 2016. Under this circumstance, it might mean that their tour operation and services have improved little by little.

In conclusion, it can be understood by the responds from both local business and international tourists who travelled to Bhutan that some parts of roads, transportation system and

services need to be improved in order to facilitate local people, attract more tourists, and advance the country's business and economic growth. Without a great transportation and tourist services, it affects the development and number of tourists coming to the country. However, the tourists were satisfied with the information and services provided by the local service providers as it is informative and useful for them. Moreover, international tourists are more likely to visit Bhutan again because of the local foods, friendly people, willingness of local people to assist, climate of Bhutan, services provided to them and their wonderful experience in Bhutan.

## 8. References

Angelova, B., & Zekiri, J. (2011). Measuring Customer Satisfaction with Service Quality Using American Customer Satisfaction Model (ACSI Model), *International Journal of Academic Research in Business and Social Sciences*, (1), 232-258.

*Annals of tourism research* (2010), 37(4), 969-988.

*Annual Report Bhutan Tourism Monitor* (2016). Retrieved from [http://tcb.img.ebizity.bt/attachments/tcb\\_041217\\_bhutan-tourism-monitor\\_2016.pdf](http://tcb.img.ebizity.bt/attachments/tcb_041217_bhutan-tourism-monitor_2016.pdf). (May, 13, 2017).

Chataway, C. (1996). *Airports in the 21st century*. Proceedings of the Chartered Institute of Transport in the UK, 5 (4).

Cochran, W. G. (1977). *Sampling Techniques* (3rd ed.). New York: John Wiley & Sons.

Culpan, R. (1987). International Tourism Model for Developing Economies, *Annals of Tourism Research*, Vol. 14, 541-552.

*Economic Development Policy of the Kingdom of Bhutan*. (2010). Royal Government Bhutan: Thimphu, Bhutan.

Freeman, K. A., & Jackson, K. C. (2012). In Pursuit of Happiness, Bhutan Opens to Globalization and Business. *International Journal of Business and Social Research*, 2(5), 132-143.

Goodwin, P. (1991) *Transport: the New Realism*: report to the Rees Jeffreys Road Fund for discussion at the 'Transport - the New Realism' conference, Church House, London; Transport Studies Unit.

Holloway, J .C. (1989). *The business of tourism* (3rd ed). London: Pitman.

Ito, T. (2011). *Road Expansion and Its Influence on Trail Sustainability in Bhutan*. *Forests*, 2(4), 1031-1048.

Kotler, P., & Kavin, L. K. (2008). *Marketing Management*. (13th ed,). United States: Pearson Education Inc.

Lamb, B. and Davidson, S. (1996) *Tourism and Transportation in Ontario, Canada*. In L. Harrison and W. Husbands (eds) *Practising Responsible Tourism: International Case Studies in Tourism Planning, Policy and Development*. Chichester: Wiley.

- Nyaupane, G. P., & Timothy, D. J. (2010). Power, Regionalism and Tourism Policy in Bhutan. *Annals of Tourism Research*, 37(4), 969-988.
- Soruphia, E (2005). Rethinking the Role of Transport in Tourism. *Proceeding of the Eastern Asia Society for Transportation Studies* (5), 1767-1777.
- The Planning Commission Secretariat. (2000) Bhutan National Human Development Plan Report, Thimphu, Bhutan: Royal Government of Bhutan.
- Tourism Council of Bhutan (2016). Retrieved from <https://www.tourism.gov.bt/resources/annual-reports> (May, 13, 2017).
- Yamane, T. (1973). *Statistics: An Introductory Analysis*. 3rd Edition, Harper and Row, New York.
- Yeshe, J. Chief Engineer (2014) (Design Division) Department of roads, Ministry of Works & Human Settlement Royal Government of Bhutan.

# Progress and Prospects of China's Tourism Land Research

Wenli Lu<sup>1</sup> and Xinjian Li<sup>2</sup>

Tourism Management<sup>1</sup>  
Beijing International Studies University  
Beijing, China  
Email: [luwenli0806@163.com](mailto:luwenli0806@163.com)  
Tourism Economic Development Strategy<sup>2</sup>  
Beijing International Studies University  
Beijing, China  
Email: [xinjian1230@126.com](mailto:xinjian1230@126.com)

**Abstract:** In the past 40 years of reform and opening up, China's tourism industry has made remarkable achievements. From the initial inbound tour to the simultaneous development of domestic and international tourism, and then to the international brand of tourism, China's tourism industry has become an important destination and source area in the world. The booming tourism industry has led to a rapid growth in the amount of tourism land, which shows that research on tourism land is becoming more and more important. On the basis of combing relevant literatures, the paper firstly analyzes the hot issues of tourism land research in China by means of literature measurement, and then explores the research progress of tourism land based on hotspot issues, including Tourist land connotation, the demand of tourism land, the evolution of tourism land, and tourism land evaluation effect. Finally, the research prospects of tourism land are prospected.

**Keywords:** tourism land; land use; tourism

## 1. Introduction

As the most common resource for tourism, land utilization and utilization value can be improved by tourism to a certain extent. Tourism land is the most basic and wide-ranging combination of various factors with tourism functions in the tourist destination. (Deju Zhu, 1996, p. 125) "The Relationship between Recreation Activities and Land Use" was published by McMurry in 1933. It is this opening work of tourism geography that has led researchers to focus on land use issues related to tourism development. In the 1950s, some countries and regions began planning tourism land. Since the 1970s, although there have been few research results on tourism land at home and abroad, China has established a tourism bureau during this period, and different types of tourism land planning have appeared in the construction sector. In 1981, Bihu Wu's book "Principles of Regional Tourism Planning" was the first research report on tourism land in China. With the continuous development of tourism land research, tourism land evaluation, tourism land change, tourism real estate, tourism resort land use, tourism land type and functional structure, tourism land management and sustainable development have become the focus of scholars in China. (Qianhui Hu & Lin Lu, 2009, pp. 313-319) The content and the resulting number of documents are also increasing. The state is also constantly reforming the tourism land. From 2001, the "Notice of the State Council on Further Accelerating the Development of Tourism" has nothing to do with the contents of the land

policy. Eight years later, the "State Council's Opinions on Accelerating the Development of Tourism" clearly stated the policy needs of the land. The "Optimization of Land Use Policy" in the "Several Opinions of the State Council on Promoting Tourism Reform and Development" in 2014 is a separate listing of 20 policy opinions. In the process of attracting investment from local governments, there are different levels of incentives for tourism investors. (Yu Wan, 2017, pp. 6-7) It fully demonstrates that the state attaches more importance to tourism land. Faced with a large number of literature achievements and the increasing importance of tourism land, it is urgent to analyze the literature data to find out the recent research frontiers and development trends in the field of tourism land. This not only provides researchers with research directions, but also provides a good basis for the future development and development prospects of tourism land.

At present, there are many tools for drawing knowledge maps, and CiteSpace software is one of them. (Chuanyan An, Tongsheng Li, Zhouyan Zhai & Qiang Fu, 2018, pp. 1186-1200) However, the domestic literature on the use of CiteSpace visualization software is mainly distributed in the fields of book and archive management, management science and engineering, education, etc. There are few applications in the tourism academic community. There is still a large research space in various research fields in tourism to explore through the perspective of information visualization. (Chen W S, Qiu S R & Zheng J G et al, 2015, pp. 451-457) Therefore, this paper uses the scientific knowledge map drawing tool-CiteSpace software system to study the research hotspots and research frontiers of tourism land in a new way.

## **2. Research Objectives**

Although scholars have sorted out the literature on tourism land in different periods, summarized the progress and enlightenment of tourism land research, the research status of domestic and foreign tourism land, different types of tourism land and tourism land related issues. However, there are certain subjectivity and limitations in the methods of reading, combing and summarizing. The publication of relevant review literatures can not cover the results of later research, and it is difficult to analyze the current research fronts of tourism land and predict the future development trend of tourism land. Therefore, this paper uses objective measurement methods to avoid subjective judgment, scientifically collate relevant domestic tourism land literature, comprehensively analyze the research results of tourism land, to explore its development history and prospect its development trend, and provide scientific data support for later research in the field of tourism land. And the purpose of the theoretical basis.

## **3. Literature Review**

### **3.1 Tourist land connotation**

At present, there is no unified statement about the concept of tourism land. How to define the concept of tourism land is also an issue that experts and scholars in academic circles have been discussing. Through literature review, it is found that the academic community limits the definition of tourism land to narrow and broad aspects. Generally, the tourist land mentioned by the people refers to all the land in the scenic spots at all levels approved by the people's government at or above the county level, that is, the tourist land is the most basic and most extensive combination of various tourism factors in the scenic tourist area. This is the narrow concept of tourism land (Minghao Ou, 2002, pp.300-301) The broad definition is that any land that can provide tourists with sightseeing, knowledge, fun, vacation, recuperation, rest,



adventure, hunting, research and other recreational activities can be called tourism land. (Dejun Han, Daolin Zhu & Chi Chaoyue, 2014, pp. 68-75) That is, all the land carriers needed for tourism. Dejun Han supports the concept of general tourism land and uses it to classify and develop tourism land in Guizhou Province. With the continuous transformation of the regional development model, the definition of tourism land is also constantly evolving. The idea that “all kinds of land resources that can be used by the tourism industry are tourism land” is increasingly recognized by experts and scholars. (Hengnian Dong, Miaodi Zhang & Yunwei Liu, 2007, pp. 48-52) By analyzing the concept of tourism land, it can be concluded that there are many types of tourism land, the boundaries are not clear, the utilization period is long, and the utilization mode is compatible. Tourism land is generally multi-purpose. It can be used for tourism development as well as for other developments. The land after development can be enjoyed for a long time. The long-lasting nature of the well-protected land is more obvious because of the extensive use of land. Lead to the diversity of its species and the unclearness of its boundaries. Regarding the compatibility of land use methods, Yanming Zhang pointed out that it refers to the tolerance range of land use nature, which is generally expressed as “allowed setting”, “conditional permission setting” and “not allowed setting”. Therefore, it is sometimes called “land use compatibility” or “construction land construction”. (Yanming Zhang, 2008, pp. 10-14)

### 3.2 Tourism land demand

The demand for tourism land mainly includes four kinds of tourism demand, such as urban tourism, rural tourism, coastal tourism and eco-tourism. Xiaolong Ma's research found that urban development and construction land has become the fastest growing land use type in terms of growth rate. (Xiaolong Ma & Yunliang Jin, 2014, pp. 87-96) In terms of the demand for rural tourism farmland, believes that rural tourism land is not to change the nature of agricultural land “mainly based on agriculture”, and tourism should be the second function superimposed on agriculture. (Bo Ma, 2017, pp. 4-6) As the most mature coastal tourist resort in China, the characteristics of land use change in Jinshitan Resort are quite representative. Its land use function shows a spatially homogeneous to heterogeneous change, and it is a layered inland distribution trend based on the coastline. (Jianchao Xi, Xinge Wang, Qinqin Kong & Shoukun Wang, 2016, pp.130-139) Jie Liu et al. pointed out that ecotourism land only occupies a small part of land use and is scattered throughout the relevant land. The land for ecotourism is still vague, there is no clear standard for demarcation, and a complete system of ecotourism land has not been formed. (Jie Liu, JinMing Yan & Hui Qiu, 2013, pp. 17-77)

In short, the needs of different types of tourism land use have their own characteristics. The urban tourism land is mainly urban complex and accommodation and catering land. The unit land cost is high, and the comprehensive utilization and function extension are more prominent. Rural tourism land is diverse and complex. As Bo Ma believes, diversity is manifested in a variety of conditions, such as resource endowment, human-land relationship, economic location, development basis, and governance level. Complexity is manifested in the non-standardization of the distribution of land rights, which is influenced by historical constraints and the level of collective governance of the village. Jun Yang et al. found that the scale of coastal towns has expanded, the types of land use have changed, and the number and scale of tourism land have increased rapidly. Under the joint driving of internal and external factors, tourism land presents different spatial layout patterns in different time periods. (Jun Yang, Nan Na, Jianchao Xi, Quansheng Ge & Yuechen Li, 2015, pp. 465-474) The ecotourism

land has typical regional characteristics, and its tourism resources are rich in variety, and the three-dimensional climate characteristics are typical and environmental friendliness is its greatest feature. Therefore, tourism development should be carried out on the basis of the characteristics of different types of tourism land and meeting the needs of land use.

### 3.3 Tourism land evolution

The most basic spatial unit of rural tourism development is rural settlements. The spatial evolution of rural settlements in tourism destinations is analyzed from two dimensions: land use and spatial form change. The study found that due to the difference of location conditions, the evolution of land use patterns in rural settlements shows the difference of “core-edge”. The closer the village is to the core scenic spot, the higher the degree of land intensive use, the more perfect the tourism function, and the more huge the village landscape changes.( Jianchao Xi, Xinge Wang, Qinqin Kong & Nan Zhang, 2014, pp. 531-540) As Zhuhai is located in a special area of the Pearl River Delta, the tourism industry in this area is highly developed and the contradiction of land use is prominent. Therefore, the evolution law of tourism land can roughly reflect the evolution law of coastal tourism land. Yingxue Zhao believes that its scale is growing rapidly in terms of quantitative changes; in terms of sources, forest land is the main source of tourism land growth in Zhuhai; in terms of spatial distribution evolution, it exhibits a “ten” shape expansion feature, mainly concentrated in eastern mountains and islands; In terms of structural evolution, the change in forest land is most prominent.(Yingxue Zhao, 2010, pp. 306-312) The evolution of urban tourism land can be indicated by the land use change of Zhangjiajie, a typical tourist city in Hunan Province. Dongguo Zhu and others pointed out that although the land use pattern has undergone major changes, forest land, grassland and cultivated land are still the main types of land use; from the perspective of changes in land use dynamics, construction land has the largest increase; from the perspective of mutual transformation of land use types, cultivated land and grassland are transformed into tourism construction land and forest land.(Xiaomin Zhao & Xi Guo,2008) At the same time, in the process of continuous expansion of ecotourism land, the land area is gradually reduced, and the distribution of the pieces tends to be separated and fragmented. In short, the tourism land of different formats has its own evolution law, but in the process of evolution, there are still problems such as insufficient dynamic evolution model construction, single time and space scale, weak process and mechanism research of ecological environment effect, and lack of dynamic monitoring of environmental effect data. (Lei Zhang, Xu Gao, Weimin Cai, Xiaoqin Chen, Lijun Wang & Qiu Huang, 2017, pp. 489-496)

### 3.4 Tourism land evaluation effect

The early eco-efficiency of the coastal wetland tourism land represented by the Qilihai is in a stable state. After reaching the peak, it has a slight decline, and then has been steadily rising. The eco-efficiency of energy value greater than 1 is relatively effective, indicating that the sustainable development of the Qili coastal wetland ecosystem is good. (Xiaolong MaIn & Yunliang Jin, 2014, pp. 87-96) The evaluation results show that the mountain tourism city in urban tourism land is relatively fragile and rich in natural tourism resources. The typical Zhangjiajie city has high ecological sensitivity and regional differences.(Dongguo Zhu, Binggeng Xie & Yonglin Chen, 2015, pp. 184-189) The county tourism land has obvious internal differences in the level of intensive use; the extensive tourism economic growth model leads to low utilization rate of tourism land, significant waste, and some townships still rely on low-cost mountain water resources to achieve industrial expansion. In the contemporary society where the scope of tourism activities continues to expand and the scale of tourism continues to expand, the area of ecotourism in tourism land has received extensive attention. The study found that the tourism land in different

scenic spots remained generally at a medium level; the overall level of coupling was higher, although the coordination situation was different but the overall coordination degree was moderate.

#### 4. Research Methodology

##### 4.1 Research method

The CiteSpace software system was developed by the Chaomei Chen team in 2004. It uses a variety of methods to scientifically study the literature in a specific field, and displays the development of the field of study and the internal mechanism of scientific evolution in the form of a visual map. Compared with other visualization software, CiteSpace combines literature citation analysis, keyword co-occurrence analysis, author collaboration analysis and document coupling analysis, focusing on the analysis of research frontier evolution trends, internal linkages and knowledge base. The relationship is scientific, effective, and easy to use. (Yue Chen, Chaomei Chen & Zhigang Hu, 2014, p. 38) CiteSpace information visualization software was introduced to China in early 2007 and has been rapidly promoted throughout the country since 2008. This article uses CiteSpace software, the Selection Criteria is Top 10 per slice, the running time is January 3, 2019, and the time span is 1996-2018 (Slice Length=1), using Cluster View and Show Merged Network features in Visualization.

##### 4.2 Data Sources

The literature analyzed in this paper is from China National Knowledge Infrastructure (CNKI) journal library (core journal), doctoral thesis database, excellent master's thesis database, and the search terms are set to “tourism” + “land” or “tourism” + “land use” or “recreation” + “land” or “recreation” + “land use” or “leisure” + “land” or “leisure” + “land use”, the time range is from 1996 to the present, and it can basically cover international and domestic academic papers on tourism land research. In order to ensure the high authority and interpretability of the literature, the papers and non-academic papers that are not related to the research topic are eliminated. Finally, there are 244 papers in China National Knowledge Infrastructure, which are researched and analyzed to obtain a preliminary understanding of the field of tourism land.

#### 5. Results

##### 5.1 Author cooperation network



Figure 1 Author

cooperation network map

The CiteSpace author's co-existing analysis can identify the interaction and mutual relationship between the core figures and researchers in a research field. (Chuanyan An, Tongsheng Li, Zhouyan Zhai & Qiang Fu, 2018, pp. 1186-1200) Import the organized data into the software and get the author's network cooperation map (Figure 1). As can be seen from the figure, the number of people engaged in research on tourism land in China is relatively scattered. The author at the center is Jianchao Xi, who has more cooperation with Nan Na, Quansheng Ge, Jun Yang and Hongdan Zhao. Although Guanqin Wu, Xing Niu and Hengzhou Xu formed a cooperative network, they did not cooperate with Jianchao Xi. At the same time, Fengqun Wei, Yarong Liang, Jiafeng Liu and Bowei Zeng did not form a network of cooperation with others. In general, the authors of China's tourism land research have less cooperation with each other, and the authors who cooperate with each other are concentrated among several authors, and there is no author cooperation network. Based on the color analysis of the connection, it is known that the authors cooperate with each other after 2010, and the influence of Jianchao Xi after 2014 is greater.

## 5.2 Research hotspot



Figure 2 Tourism land research keywords co-occurrence Cluster View map

Research hotspots are scientific issues or topics explored by a large number of papers with intrinsic links within a certain period of time. (Wan Li & Bindong Sun, 2014, p.7) Here, the Cluster View map is generated by co-occurring analysis of the keyword of the tourist land document (Fig. 2). Tourism land is the most frequent keyword, followed by rural tourism, land use, and land transfer. In 2006-2010, the higher the frequency of keywords was tourism land, rural tourism, land use, and land circulation. At the same time, these high-frequency keywords also basically penetrated the whole stage of research. Most of the research on tourism land is

concentrated after 2010, especially in 2015-2017. Key words such as driving mechanism, spatial pattern evolution, tourism real estate, industrial land and residential land are all appearing at this stage. Tourism land as a core keyword is closely related to other keywords, but land use change as a higher frequency keyword is only related to rural tourism, and tourism development is only related to land circulation. The three keywords of land use status, indicator system and tourism land planning are not related to other keywords and exist independently. It can be seen that the problems of tourism land research at the beginning of development are the basic problems. These research contents have been deepened with the development of time. Now they have a lot of research results and form a mature theoretical system. With the diversification and complication of tourism phenomena, the research field is constantly expanding. However, due to the lack of a systematic framework, research such as tourism land planning cannot be combined with other research. In the past three years, scholars have paid more attention to the evolution of spatial patterns and the study of different types of tourism land.

## **6. Discussion and Conclusion**

This paper uses CiteSpace information visualization analysis software to analyze the literature data of China's tourism land research, and demonstrates the cooperation and mutual relationship between the core figures and researchers in a research field through the author cooperation network. Then through the analysis of the research hotspots, the focus of tourism land is obtained. Finally, the paper draws the following conclusions in the research on the literature of tourism land:

(1) Enrich the research content of tourism land. The first is connotation research. By summarizing the meaning of tourism land, it explores how to define tourism land and provides theoretical basis for later scholars' research. The second is classification research, exploring the classification indicators of tourism land, and determining which types of land use are classified according to what indicators, which is of great significance for the systematic study of tourism land. The third is the study of the format. What are the differences and connections between the different formats of tourism land? How to develop the tourism land of different formats is worthy of further discussion.

(2) Strengthen research on evaluation methods of tourism land. First, it is in line with the development trend of tourism land, and analyzes the evaluation methods of tourism land in different formats. In particular, it should study the methods used in land evaluation in typical tourist areas. Its typicality and representativeness provide practical guidance for tourism land evaluation research. Second, the innovative tourism land evaluation method will be used to develop tourism based on the evaluation effect. Third, summarize the evaluation methods of tourism land, analyze the advantages and disadvantages of various evaluation methods, and ensure that the most appropriate evaluation method is used in the evaluation of tourism land.

Compared with other research results, the shortcoming of this paper is that the number of research literature is limited. When the "China National Knowledge Infrastructure" database is used as the analysis object, some important documents not included in this database may be missed. To a certain extent, it will affect the analysis results of this paper.

## **7. References**

Deju Zhu. (1996). *Land Evaluation*. Beijing, ST: Dadi Publishing House.

- Qianhui Hu & Lin Lu. (2009). Progress and enlightenment of tourism land research. *Economic Geography*, 29(02), 313-319.
- Yu Wan. (2017). Tourism real estate in the eyes of scenic investors and analysis of demand for land use. *Tourism Journal*, 32(08), 6-7.
- Chuanyan An, Tongsheng Li, Zhouyan Zhai & Qiang Fu. (2018). Characteristics and trends of rural tourism research in China from 1992 to 2016——based on CiteSpace knowledge mapping analysis. *Progress in Geography*. 37(09), 1186-1200.
- Chen W S, Qiu S R, Zheng J G et al. (2015). Progress of China's agio: tourism research by CiteSpace. *Limassol: Advances in Education Research*, 451-457.
- Minghao Ou. (2002). *Land Use Management*. China, ST: China Agricultural Press
- Dejun Han, Daolin Zhu & Chi Chaoyue. (2014). Classification and development of tourism land in Guizhou province based on recreation opportunity spectrum theory. *Chinese Land Science*, 28(9),68-75.
- Hengnian Dong, Miaodi Zhang & Yunwei Liu. (2007). Study on the status quo and future trends of leisure and tourism land use in Beijing suburbs. *Tourism Journal*, (04),48-52.
- Yanming Zhang. (2008). Research on land use compatibility control in urban planning. *Chinese Land Science*. 22(11),10-14.
- Xiaolong Ma & Yuanliang Jin. (2014). Study on the mechanism of urban land use change and tourism development. *Tourism Journal*. 29(04),87-96.
- Bo Ma. (2017). Carding and convergence of rural tourism land problems. *Tourism Journal*. 32(08),4-6.
- Jianchao Xi, Xinge Wang, Qinqin Kong & Shoukun Wang. (2016). From traditional rural settlement to modern coastal tourist resorts: dynamic evolution of land use in Dalian Jinshitan tourist resort in the past 20 years. *Human geography*.31(01), 130-139.
- Jie Liu, JinMing Yan & Hui Qiu. (2013). Study on classification system of ecotourism land. *Chinese Land Science*. 27(09),71-77)
- Jun Yang, Nan Na, Jianchao Xi, Quansheng Ge & Yuechen Li. (2015). Microscale analysis of spatial pattern evolution of tourism land in coastal tourist town——taking Dalian Jinshitan tourist resort as an example. *Resource Science*.37(03),465-474.
- Jianchao Xi, Xinge Wang, Qinqin Kong & Nan Zhang. (2014). Rural settlement evolution and land use patterns in tourist destinations: a case study of three tourism villages in Yesanpo tourism area. *Journal of Geographical Sciences*. 69(04),531-540.
- Yingxue Zhao. (2010).Analysis of the evolution of tourism land in Zhuhai. *Geographic Science*. 30(02),306-312.
- Xiaomin Zhao & Xi Guo. (2008). *Regional land quality evaluation*. Beijing, ST: China Agricultural Science and Technology Press.
- Lei Zhang, Xu Gao, Weimin Cai, Xiaoqin Chen, Lijun Wang & Qiu Huang. (2017). Evaluation on ecological efficiency of tourist land in Qilihai wetland of Tianjin. *Wetland Science*. 15(04),489-496.
- Dongguo Zhu, Binggeng Xie & Yonglin Chen. (2015). Land use strategy of mountain tourism city based on ecological sensitivity evaluation——taking Zhangjiajie city as an example. *Economic Geography*. 35(06),184-189.
- Yue Chen,Chaomei Chen & Zhigang Hu. (2014). *Principle and Application of Citation Space Analysis*. Beijing, ST: Science Press.

Wan Li & Bindong Sun. (2014). Knowledge structure and research hotspots of Western economic geography: A study based on CiteSpace. *Economic Geography*. 34(4),7.

# A Study of the Impact of Online Reviews on the Youth Group's Tourism Consumption Decisions

Shanshan Shi<sup>1</sup> and Xinjian Li\*

Beijing International Studies University<sup>1</sup>

Chaoyang District, Beijing

Email: [shanshanshi0304@163.com](mailto:shanshanshi0304@163.com)

Beijing International Studies University\*

Chaoyang District, Beijing

Email: [xinjian1230@126.com](mailto:xinjian1230@126.com)

**Abstract :** China's tourism and the electronic commerce market has grown steadily. The optimized development of online platform makes tourism consumer's information and evaluation more transparent. It is particularly important to maintain good online reviews in the consumer. However, information under the era of big data is complexity and differ. Online reviews have brought conveniences to users, but the influence of the specific mechanism is still not familiar with. Based on the typical representative for the youth group, and starting from the consumer oneself. Guided by the TAM model theory, the study employs empirical research methods to explore the influence among the various features of tourism online reviews, consumers perceived usefulness and purchasing decisions. The findings show that the perceived usefulness, positive tendency, quantity and content of online reviews positively influence the consumer decision-making significantly, while the effect of timeliness, reading preference and commentator's status literacy is insignificant. Last, suggestions are provided.

**Key words :** Online Reviews; the Youth Group; TAM Model; Perceived usefulness; Tourists' Consumption Decisions

## Introduction

### *The Current Situation of Tourism Development in China*

With the government attaching great importance to tourism development, the State Council has successively issued more important travel-related documents and policies. This drastic move has created favorable conditions for the growth of win-win cooperation in tourism and related industries. Second, in recent years, the continuous rise of China's economic strength and the continuous improvement of its overall national strength have made national tourism a new trend of development combining universalization and pluralism.

In 2016, China received more than 4.4 billion tourists from home and abroad throughout the year, an increase of 11% over the same period last year. Tourism revenue also reached 4.69 trillion yuan, an increase of 13.6% over last year. Among them, the number of inbound tourists reached nearly 140 million, up 3.8% over the same period. The contribution of foreign exchange to inbound tourism reached 120 billion U.S. dollars, up 5.6% over the same period last year, showing steady growth and new development. This also shows that the attractiveness of tourism resources in our country is constantly increasing. In 2016, the growth rate of outbound tourism tends to be gentle, and the spending on outbound tourism by nationals is more rational. From the data, the number of outbound tourism exceeded 100 million, an increase of 4.3% over the same period of last year. Outbound tourism expenditure was 109.8



billion U.S. dollars, up by 5.1% over the same period of last year. Thus it can be seen that the "golden age" of China's tourism development is still booming.

### *The booming online travel market*

In recent years, online travel products and services have become more and more popular with users because of their convenient shopping and information transparency. Figure 1.1 shows that in 2016, the estimated transaction volume of China's e-commerce market reached 20.2 trillion yuan, up 23.6% over the same period of last year. Among them, O2O (Online To Offline) grew rapidly with an average growth rate of over 25%, playing an important role in promoting the development of China's e-commerce market.

Figure 1.2 shows that in recent years, the scale of transaction growth in the online travel market in our country has been encouraging. In 2016, it exceeded RMB600 billion, an increase of 34.3%. In addition, relevant parties expect the online transaction volume of China's tourism market to exceed one trillion yuan in 2019. This shows that the online travel market has always maintained a strong momentum of development, and strive to play an active role in the tide of the billowing times.

### *Hot online travel reviews*

In the background of big data, the competition in the tourism industry is getting hotter, which has given birth to various alliances and inter-industry alliances, forming a new pattern of coexistence of competition and cooperation. For example, Ali Travel recreated an eLong in just nine months; Expedia took over from Travelocity and Orbitz and created a new power framework within online e-systems based on its potential dominant social knowledge base. More and more tourism enterprises, especially those with more openness, have successively chosen competitive strategies to implement the platform-based development. On the foreign travel platform, TripAdvisor turned off its VirtualTourist, an online interactive service brand for tourists, and said it may also halt the operation of its sister site Travelpod in order to preserve and develop its core competing products. What's more, in recent years, the sharing platforms like Facebook, WeChat and other platforms that provide similar travel services will face a grim new round of user battles.

The pleasant and rapid development of e-commerce and online travel market in China has made travel online comments as a kind of user-generated content (that is, a true description of the experience --experienced by a real consumer after purchasing a travel product). The true description after real consumers' purchase which plays an irreplaceable role in guiding the travel information search behavior and purchase decision. Napaporn Rianthong (2016) argues that in the era of big data, the overload of information is more and more common, and the reduction of search fees for tourists means the increase of cognitive costs. Therefore, in order to optimize the search experience, tourism consumers should carefully choose the online travel Comment. B.Fang (2016) et al also think that tourism consumers should also learn to distinguish effective comment information by analyzing the value cognition of travel online reviews and pointing out the factors that affect the value of reviews.

## Literature Review

Most of the domestic scholars have paid more attention to the descriptive and systematic theoretical statements on online reviews. In recent years, there have been more and more empirical studies and textual studies of the impact of online reviews on consumer consumption. For example, Zheng Xiaoping (2008) used the quantitative research method to analyze the impact of online reviews on the online purchase of travel consumers. At the time, some creative suggestions were put forward from the perspective of online retailers which has an indelible contribution to the issue. Ji Fang (2008) creatively combined the dissemination of online reviews with online marketing, using cross-referencing qualitative and quantitative methods, taking college students as the research subject, more psychology and peripheral variables, and trying to find if there is a significant impact of the customers' online review. The above two studies have shown that the factors affecting the decision-making of tourist consumers are diversified and both have groundbreaking guiding significance.

Domestic scholars pay more attention to online reviews after 2000 and begin their role in the dissemination of the reviews. Afterwards, they gradually deepen their research on e-

commerce marketing and consumer decision-making. In the study of the movie industry, Hao Yuanyuan, Ye Qiang, Li Yijun et al. (2010) put the related online review as the research object, paying more attention to the tone, the field and the emotion of the reviews, trying to use the text content analysis method and research suppose the establishment of an influential model of the usefulness of online reviews. However, the research on online reviews in the background of tourism industry until Zheng Shi (2011) formally targeted the online reviews in the field of tourism, explored the specific attributes that affect the usefulness of the text of the reviews and attempted to construct a model for evaluating the usefulness of it. This quickly aroused the academic attention to online travel reviews.

Diversified perspectives on the travel online reviews have different theoretical basis for the study, domestic scholars studied the impact of online reviews on consumer decisions as the starting point, intended to explore and find out the influence level of online reviews on potential customer, influencing factors and the specific impact mechanism. For example, Wang Zhen-zhen (2012) tested the impact of online travel reviews on consumer purchasing decisions with empirical research and put forward new research hypotheses and models. Based on the study of its research methods and experiences, this study aims to explore the impact of online reviews under the era of big data, especially on the tourism consumer decision-making of special youth groups. Based on the perspective of attribution theory, Li Jie (2014) focused on the different characteristics of the recipients and the publishers of comments, and mainly discussed whether the influence of individual psychological factors on the formation and mechanism of online reviews. Through empirical investigations, Zhang Sidou (2016) analyzed the formation of credibility of online reviews of tourism products by using structural equation modeling (SEM), and improved "stimulus-perception" of existing research to "Expected inherent perception-browsing comments by the stimulus- a new final perception of the credibility of the chain formation process.

International scholars' research on online word-of-mouth (also known as online review) is ahead of the domestic one, beginning around the 1990s with the most representative word-of-mouth concept from Chatterjee and Patrail (2001) The extension of WOM (word-of-mouth) research depends on the reasons why customers choose online retailers, and believes that Internet word-of-mouth as a way to clarify ideas, suggestions and express complaints has become a rapidly growing phenomenon in guiding enterprises to compete And fostering loyalty and gives management strategies that reduce the impact of negative comment information. From the point of view of tourists, the online reviews of tourism online include content such as booking intention and decision, perceived credibility, information adoption, perceived usefulness, repetitive purchase and recommendation. Jalilvand et al. (2012) applied comprehensive methods to study tourism Industry network reputation, image of tourist destination, tourist attitude and intension between the internal structure. Sparks (2013) and other environmental resorts, for example, explored the impact of the specific content of online reviews, sources and certification marks on tourists' utility, trustworthiness, quality and corporate social responsibility through empirical research methods. Thomas Reimer et al. (2016) use scenario experiments to explore the plausibility of review credibility in the evaluation of the valence and consumer purchasing decisions, also pointed out that the credibility of online reviews will influence the credibility of the enterprise benefits. Based on the TAM, Pietro and Virgilio (2012) point out that the popularity of social media analytics is on the increase. Internet word-of-mouth will enhance tourists' perceptions and thus their perceived entertaining and usefulness. More than 1,300 User experience starting. Paul Phillips (2015) From a strategic perspective, the development of social media has accelerated the need for tourism organizations to constantly reassess competitive strategies. The study validates a new method to test the determinants of hotel performance and theoretically contributes to the documentation of tourism performance. And extended from the hotel determinants study, and used an artificial neural network model with 10 input variables to study the relationship between user-generated online reviews, hotel features and Revpar. Zhang xiang (2017) et al. Argue that the current research on social media analytics is increasing. Attempts should be made to complement traditional approaches that are largely based on surveys, personal interviews, and other communications, and to make use of rich, the available sources of data demonstrate a more promising approach to research and research, which is an important aspect of the article that is urgently needed to learn and needs further improvement in the future.

It can be seen from abroad that online reviews are more mature in the field of tourism and hotels. From the research on the influence factors of online reviews on tourists' consumption decisions to the research on the tendency, credibility and usefulness of online reviews, Practical

research has been leading the way. According to the literature of the past two years, it is found that foreign scholars are more and more interested in the topics of big data and social media analysis. It is particularly important to identify online reviews that are valuable to users in the presence of powerful "cloud" information storage.

## Research Design

To youth groups as a distinct representative. Under the fierce social changes, young people have a growing right to speak. Their groups have distinctive features and outstanding representativities. Young people not only play an important role in the "Internet + Era" but also play a role of "elite leader" in disseminating and absorbing the impact of online review on tourism consumption, gaining an insight into their perception of online review. The formulation of tourism product and service decision-making has important guiding significance.

Guided by the technology acceptance model. Davis, Bagozzi and Warshaw (1989) proposed the TAM (Technology Acceptance Model) technology acceptance model first, and applied it to the field of information system. The TAM theory is mainly a model established by users when they accept the information system. The theory proposes two main determinants: perceived usefulness, perceived ease of use. One to reflect the user that the use of a specific system to improve the performance of his work results, and second, to reflect the user that a specific system easy to use.

The purpose of this study is to explore the influence of tourism consumers on travel online reviews, and to draw lessons from previous research contributions. Among them, Yu Hang (2013) summarizes the information elements of online reviews when pointed out that scholars' research on comment information is mainly based on the following dimensions: number of reviews, comment bias, comment attributes, comment stars, comment length, etc. This is also an important reference to the scale design dimensions. Second, the theoretical guidance of the TAM model for this study lies in that the scale is dimensionally designed from the two categories of perceived usefulness and perceived ease of use, and the theory is of great significance in terms of model building and writing.

## *Research hypothesis*

H1: The larger the number and content of reviews, the greater the impact on travel consumers' decisions

H2: The more timeliness of comments, the greater the impact on travel consumer decisions

H3: Reviewers' reading preference influence travel consumer decisions

H4: The more positive reviews, the greater the impact on travel consumer decisions

H5: The higher the status of reviewers, the greater the impact on tourism consumers' decision-making

H6: The more perceived usefulness, the greater the impact on the travel consumer decision-making

The purpose of this study is to find out the specific forms of expression and influence mechanism of online review on tourism consumption in the era of big data to further improve the relevant theories; at the same time, to better understand the usefulness of the huge youth groups on online travel reviews, Consumer behavior characteristics.

Online reviews to some extent, easy to save, easy to access, higher resource value characteristics, which is also an important reference for management of tourism enterprises to assess and strategy development. In view of the influence of the current online travel review on the consumer decision-making of young consumers, it is the focal point of this study to provide practical guidance for the operation and development of tourism enterprises, e-commerce platforms and tourism destinations. Therefore, the online review on the study of the influence of young people's tourism consumption decision-making is a subject worth exploring in depth.

## Methodology

### *Research method*

Questionnaire: A survey method that indirectly collects research material by taking written forms as the primary form. The questionnaire can obtain the data to a great extent, and has a wide range of applications and strong applicability. It is a common method in quantitative analysis and empirical research. The investigators scored and evaluated the opinions and suggestions of specific questions by filling in the concise forms (single sheets) designed by the issuers of the questionnaires. The questionnaires of the issuers were collected and analyzed to obtain indirect materials and information. A total of 450 questionnaires were sent out and 378 valid questionnaires were returned, which relies on the online questionnaire star website, accounting for 269 valid questionnaires. The field was mainly distributed to Hunan Normal University and the surrounding areas, accounting for 109 valid questionnaires and distributing mainly young people aged 16-34.

### Empirical analysis

#### *Descriptive statistics of the research object*

In the sample survey, we can find more women, accounting for 58.2%, fewer men, accounting for 41.8% of the sample overall gender differences is not significant.

In table 4.1, It can be found that the overall educational level is relatively high. Among them, 90.2% of the people have the qualifications of undergraduate or graduate education, which has the absolute superiority in data. Followed by tertiary / secondary, high school, vocational education population, the proportion of 3.7%, education for primary and below the population does not exist. And subject to age, their occupation is dominated by student groups.

The monthly average per capita income of the surveyed households is at a moderate level, which is mostly related to the occupations of the survey population but not fixed income. The level of expenditure and consumption is relatively low, which is related to the main body of the questionnaire for students, and the monthly expenditure in line with the students' living conditions.

What's more, the average Internet usage time is 4-6 hours per day, with a population of 42.3%, followed by 2-3 hours, accounting for 24.1%, accounting for 29.1% of the total for 7 hours and above. This shows that youth groups have had more frequent contact with the Internet, more familiar and comprehensive to online review and other information.

#### *Other tourist-related information*

As can be seen from Table 4.2, among the surveyed respondents, 41% of the respondents rely heavily on online shopping for travel-related products, while 56.3% of respondents generally rely on it. The proportion of highly independent users is only 2.7%. It can be seen that young people's reliance on travel online reviews is at a high level. Understanding this feature can support the fact that travel online reviews have a significant impact on young consumers' pre-purchase behavior.

Before purchasing travel products or services, 69.6% of young people read reviews online for less than 1 hour, followed by people who read for 2-3 hours, accounting for 26.5%. Most young people by the data will be less than three hours reading travel online commentary, neither fatigue nor too much to absorb too much invalid information.

Finally, through the survey, we can find that the youth groups prefer real consumers' comments (54.2%) and travel tips (32.5%) when they read travel online reviews.

#### *Reliability Analysis and Validity test*

In the empirical study, to ensure that the measurement scale has good stability and validity, we need to test its reliability and validity.

In the large-scale survey, Cronbach's alpha value is still used to measure the reliability of the scale. The higher the alpha value, the better the reliability and the higher the credibility. Academic research  $\alpha$  value of 0.7 that the reliability is acceptable;  $\alpha$  value is larger, indicating that the better. The Cronbach's  $\alpha$  in this study was 0.945, which was greater than

0.9, indicating that the scale used in the questionnaire presented in this study had satisfactory stability and agreement.

Validity reflects the accuracy of the scale, the higher the validity of the research results, the greater the accuracy rate. In this paper, exploratory factor analysis is mainly used to conduct the validity analysis of the scale. The exploratory factor analysis firstly determines whether the sample is suitable for factor analysis. The most commonly used method is KMO sample measure and Bartlett's test. It is generally accepted that samples with a KMO of 0.7 or more and a Bartlett Sphere Test Statistical significance of less than or equal to a significant level are suitable.

Through factor analysis of travel online reviews, the following results are obtained: the KMO value is 0.946, the chi-squared test is 5264.133 and the significance level is 0.000, so that this sample can be used for factor analysis.

Since satisfaction and influence only contain four factors, such as overall satisfaction, expected satisfaction, usefulness perception, and true influence decision, a common factor is obtained through principal component analysis, and the validity test is ignored here.

#### *Exploratory Factor Analysis of Tourism Online Comments*

From Table 4.3, the common factors are extracted by principal component analysis and rotated. As a result, six common factors are obtained. And explained that the total variance was 65.310%, indicating that the extracted six common factors can explain more than 65% of the data in the measurement scale, further illustrating that the common factor has certain data persuasion.

Through exploratory factor analysis of travel online reviews, six factors are extracted, and the naming of the factors is mainly determined by the content of the measurement terms contained in each factor. According to the project's connotation of each factor, it will be named: perceived usefulness factor, quantity and content factor, timeliness factor, reading preference factor, positive tendency factor, commentators' status literacy factor in table 4.4.

For the convenience of the next research expression, we replace "perceived usefulness" with "PU", replace "quantity and content" with "QC", replace "timeliness" with "TL", replace "reading preference" with "RP", replace "positive tendency" with "PT", replace "commentators' status literacy" with "CSL".

#### *Correlation analysis*

In general, the degree to which significance is achieved can well reflect the magnitude of the correlation. The smaller the significance, the higher the degree of correlation. In this paper, we mainly use Pearson coefficient analysis method to analyze the data, the results are significant correlation when the value is less than 0.05, and the correlation coefficient is less than 0.01.

From Table 4.5, we can get the significant test of all the variables. Six independent variables and young tourists' consumption decisions are significant Positive relationship.

#### *Multiple linear regression analysis*

This paper adopts multiple linear regression method to establish the regression model to explore the significant influence of six factors such as perceived usefulness, quantity and content, timeliness, reading preference, positive tendency, and commentators' status literacy on dependent variable tourism consumption.

The sig value of the three factors of usefulness, positive tendency, quantity and content, which are reviewed in Table 4., are less than 0.05. However, the timeliness of reading, reading preference and commentator's status literacy are not significant. This shows that under the condition of multiple regression, the perceived usefulness, positive tendency, quantity and content of reviews have a positive and significant impact on the consumption decisions of young tourists. The regression equation is:

$$Y = 0.54 + 0.264X1 + 0.498X2 + 0.089X3$$

## Conclusion

### *Research Suggestions*

In this paper, young people as the research object, through online and offline questionnaires for empirical research. Six common factors influencing tourism online reviewing are analyzed: perceived usefulness, quantity and content, timeliness, reading preference, positive tendencies, and commentators' status literacy, and then analysis of its impact on consumer decision-making of young traveling consumers Correlation analysis and multiple regression analysis. On this basis, this study will provide some suggestions for the majority of young traveling consumers and tourism-related enterprises based on the analysis results.

First, rationally identify useful information. For the majority of young traveling consumers, the factors influencing their tourism consumption decision making are diversified. In terms of online reviewing factors, travelers can make rational use of useful information to better understand the product information to be purchased, and can enhance their usefulness awareness and thus reduce the actual expenses by searching for information in advance. In addition, online platforms are also committed to providing useful information to travel consumers, and will be more likely to reinforce their willingness to consume only if they perceive usefulness and ease of use.

Second, the platform should be open and transparent. Travel online reviews in the era of big data get more and more popular, and even become an important reference for consumers when traveling online to buy products. Online travel sites should be targeted to meet the requirements of tourists online reviews, such as: diverse forms, authentic and so on. At the same time, youth groups should also understand more about the timeliness of online travel reviews, reading preferences and other requirements of the youth groups, and timely launch their favorite form of online travel reviews. The most important thing is to ensure the quality of the content and quantity of comments, thus establishing the brand effect of critics is even more urgent for enterprises.

Third, strengthen management to business entities. Tourism-related enterprises should understand the impact of travel consumers before making decisions, and pay attention to the positive comments, negative comments on the monitoring and management. In addition, tourism related businesses should be more initiative and pay close attention to online reviews of traveling consumers or potential consumers.

### *Research limitations*

After reflection, there are still some limitations in this study and we look forward to improving it in the future. First of all, the questionnaire scale of this study is not mature enough, and there is no mature scale in the influencing factors of online travel review. Secondly, the conclusion of the quantitative research method is used in this study and the text analysis method will try. Finally, the research's pertinence and innovation need to be further improved, I hope in the future can be more from the perspective of online sites and tourism online platform for expansion analysis.

## Reference

- 2016 China E-Commerce Core Data Release. (2017) Shanghai: iResearch Consulting Group.
- Beverley A. Sparks, Helen E. Perkins and Ralf Buckley (2013). Online travel reviews as persuasive communication: The effects of content type, source, and certification logos on consumer behavior. *Tourism Management*, 39: 1-9.
- Bin Fang, Qiang Ye, Deniz Kucukusta and Rob Law. (2016). Analysis of the perceived value of online tourism reviews: Influence of readability and reviewer characteristics. *Tourism Management*, 52: 498-506.
- Chatterjee,P (2001). Online Review: Do Consumers Use Them? *Advances in Consciousness Research*, 28(3):129-133.
- China Tourism Research Institute. (2017) *China Tourism Economy Blue Book*. Beijing: China Tourism Press
- Hao Yuanyuan, Ye Qiang and Li Yijun. (2010). Research on online impact factors of customer reviews usefulness based on movie reviews data. *Journal of management sciences in China*, 13(08):78-88+96.

Ji Fang. (2008). An impact study of negative word-of-mouth in internet to brand attitude for college students. Huazhong Agricultural University.

Mohammad Reza, Jalilvand, Neda Samiei, Behrooz Dini and Parisa Yaghoubi Manzari (2012). Examining the structural relationships of electronic word of mouth, destination image, tourist attitude toward destination and travel intention: An integrated approach. *Journal of Destination Marketing and Management*, 1: 134-143.

Napaporn Rianthong, Aussadavut Dumrongsiri and Youji Kohda. (2016) . [Optimizing customer searching experience of online hotel booking by sequencing hotel choices and selecting online reviews: A mathematical model approach](#). *Tourism Management Perspectives*, 20(3):55-65.

Paul Phillips, Krystin Zigan and Maria Manuela Santos Silva, Roland Schegg (2015). The interactive effects of online reviews on the determinants of Swiss hotel performance: A neural network analysis. *Tourism Management*, 50: 130-141

Qi Zheng. 2015-02-26(11) China's tourism development presents eight new normals. *China Youth Daily*.

[Thomas Reimer](#), [Martin Benkenstein](#)(2016). When good WOM hurts and bad WOM gains: The effect of untrustworthy online reviews. *Journal of Business Research*, 12: 5993-6001.

Wang Zhenzhen. (2012). An empirical study of the impact of China tourism online review on tourism consumer purchasing decision. Beijing International Studies University.

Xu Yayuan, Yao Guorong and Tao Yun. (2015). Review on the impact of electronic word-of-mouth in foreign tourism research under a comprehensive framework. *Journal of Beijing International Studies University*, (1): 6-15

Yu Hang. (2014). Effects of online word-of-mouth on Consumer purchase intention. *Central China Normal University*.

Zhang Sidou, Li Junyi and Weihuan. (2016).The study of the credibility of tourism E-commerce platform online reviews : A case study of “Ali Travel” . *Tourism Tribune*, (11):74-84

Zheng Shi. (2011). The analysis of tourism online comments usefulness factors. Harbin Institute of Technology.

Zheng Xiang, Qianzhou Du, Yufeng Ma and Weiguo Fan (2017). A comparative analysis of major online review platforms: Implications for social media analytics in hospitality and tourism. *Tourism Management*, 58:51-65.

Zheng Xiaoping. (2008). An empirical study of the impact of online review on internet consumer purchasing decision. Renmin University of China.

**Appendix**

Figure 1.1 2012-2019 China e-commerce market transaction size<sup>1</sup>



Source: Shanghai iResearch Consulting Co., Ltd. 2016 Core Data Release of China's E-Commerce

Figure 1.2 2012-2018 Transaction Size and Growth Rate of Online Travel Market

<sup>1</sup> [The letter e in Figure 1.1 and 1.2 is the estimated value, not the actual value.]



Source: Shanghai iResearch Consulting China 2016 e-commerce core data release

Figure 3.1 Schematic representation of the technology acceptance model

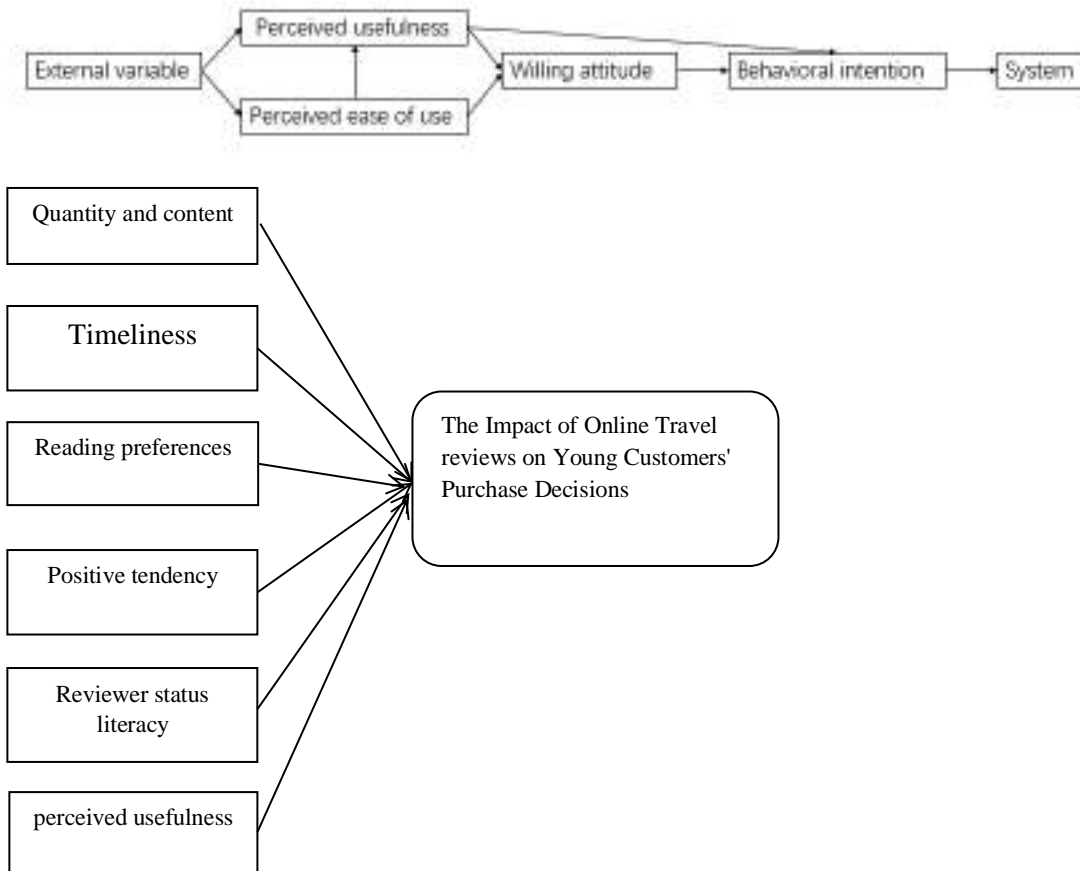


Figure 3.2 Research Assumptions and Model Construction Schematic

Table 4.1 Demographic Characteristics Description Statistics

Demographic Characteristics	categories	count	percentage	Demographic Characteristics	categories	count	percentage
age	Under 16 years old	0	0%	Average monthly household income (yuan)	Under 1000	41	10.8%
	16-34 years old	378	100%		1001-2000	75	19.8%
	Over 34 years	0	0%		2001-3000	85	22.5%



gender	man	158	41.8%		3001-4000	67	17.7%
	woman	220	58.2%		4001-5000	47	12.4%
culture degree	Primary and elementary school	0	0%	Monthly expenses (yuan)	Over 5000	63	16.7%
	junior high school	5	1.3%		Under 1000	72	19.0%
	High school, technical secondary school or vocational high school	14	3.7%		1001-2000	228	60.3%
	College	18	4.8%		2001-3000	55	14.6%
	Undergraduate	319	84.4%		3001-4000	15	4.0%
	graduate	22	5.8%		4001-5000	2	0.5%
Occupation	Civil Servants	6	1.6%	The average daily use of Internet time (hour)	Over 5000	6	1.65
	Business managers	6	1.6%		Within 1	17	4.5%
	Professional skill worker	13	3.4%		2-3	91	24.1%
	worker	2	0.5%		4-6	160	42.3%
	Farmer	2	0.5%		7-9	65	17.2%
	soldier	1	0.3%		Over 9	45	11.95
	Service and sales staff	12	3.2%				
	Teachers, doctors, lawyers	11	2.9%				
	students	312	82.5%				
	Self-employed persons	4	1.1%				
	Retired staff	0	0%				
	Temporarily unemployed	9	2.4%				

Table 4.2 Other Travel Related Information Descriptive Statistics

		count	Valid tier N %
The reliance on online reviews of relevant websites	Very dependent	155	41.0%
	Generally dependent	213	56.3%
	Not dependent	10	2.7%
The online review period before you purchase a travel product or service	Less than 1 hour	263	69.6%
	2-3 hours	100	26.5%
	4-5 hours	7	1.9%
	Over 5 hours	8	2.1%
Online reviews' content before you purchase travel product or service	Travel Guide	123	32.5%
	Light and shadow recording	24	6.3%
	Social Forum message	18	4.8%
	Reviews of real consumers	205	54.2%
	others	7	1.9%

Table 4.3 Explanations of common factors Total variance

Ingredients	Initial eigenvalue			Extract square and load			Rotate squared and load		
	total	Variance %	Cumulative %	total	Variance %	Cumulative %	total	Variance %	Cumulative %
1	11.251	43.272	43.272	11.251	43.272	43.272	4.023	15.474	15.474
2	1.779	6.842	50.114	1.779	6.842	50.114	3.508	13.494	28.968
3	1.163	4.474	54.588	1.163	4.474	54.588	3.271	12.583	41.551
4	1.034	3.975	58.563	1.034	3.975	58.563	2.281	8.774	50.325
5	.918	3.530	62.093	.918	3.530	62.093	2.236	8.600	58.925
6	.836	3.217	65.310	.836	3.217	65.310	1.660	6.385	65.310

Table 4.4 Rotation Factor Load Matrix

		Common factor components					
		1	2	3	4	5	6
PU	The content of the review is closely related to the travel product I want to buy	.753	.244	.177	.201	.143	.162
	The content of the comment can provide me with a lot of useful information	.740	.281	.137	.253	.120	.055
	Quickly take a useful comment on my decision to make a consumption decision	.687	.374	.186	.055	.099	.117
	I will pay special attention to comments that are useful for my purchase decision	.678	.376	.270	.104	.124	.093
	I will be very concerned about the lowest score the bad review	.574	.132	.277	.194	.047	.292
	The contents of the commentary should be easy to understand and convenient for me to read	.498	.308	.457	.188	.173	-.128
	I will reasonably judge the authenticity of the rating	.466	.379	.274	.117	.139	.323
QC	The number of negative comments is very important to me	.276	.717	.121	.264	-.096	.111
	I prefer online reviews that are presented as pictures or videos	.265	.623	.072	.081	.191	.169
	The more the number of comments, the more detailed the better	.268	.609	.309	.168	.231	-.050
	A lot of negative comments will make me feel the anti-tourism products	.390	.570	.123	.128	.040	.170
	I will rationally analyze the credibility of online reviews	.259	.560	.083	.089	.110	.470
	Text-based reviews can help me better understand travel products	.157	.479	.339	.216	.367	-.157
	The contents of the comments more realistic feelings more adequate, I will be more want to buy	.241	.475	.430	-.007	.299	.209
TL	Recently released comment is better	.263	.103	.721	.136	.197	.112
	The publication of the comment should be timely	.177	.101	.689	.206	.060	.328
	The more time-critical comments reflect the level of newness and reliability of product information	.420	.254	.657	.092	.113	.087
	The age, gender, and time of the comment publisher influence my perception of the validity of the comment	.125	.223	.645	.313	.187	.152
RP	The longer you read a comment, the better it will be to make the right decision	.153	.253	.161	.776	.118	.192
	The larger the number of comments read, the better it will be to make the right decisions	.246	.286	.251	.694	.133	.011

	I am very interested in the rating scoring mechanism of comments	.285	.021	.197	.510	.268	.387
PT	I will pay more attention to positive comments	.093	.059	.084	.152	.836	.167
	Positive comments will be more reference value, so that my desire will be improved	.101	.278	.237	.083	.761	.079
	In general, I will support the higher rated comments	.320	-.024	.244	.436	.499	.074
CSL	The identity and reputation of the publisher of the comment will affect my believability of the comment	.288	.311	.258	.145	.140	.619
	It is important to review whether publishers have the expertise relevant to travel products	.051	.077	.396	.386	.218	.530

Table 4.5 pairs of two correlation analysis results

	YLCD	PU	QC	TL	RP	PT	CSL
YLCD	1						
PU	.609**	1					
QC	.654**	.780**	1				
TL	.485**	.683**	.634**	1			
RP	.433**	.622**	.586**	.609**	1		
PT	.424**	.491**	.519**	.535**	.550**	1	
CSL	.384**	.571**	.579**	.625**	.604**	.491**	1

\*\* indicates significant correlation at 0.01 (bilateral) level

Table 4.6 Multiple Regression Analysis Results

Coefficient a						
Model		Non-standardized coefficient		standardized coefficient	t	Sig.
		B	Standard error	trial version		
1	(constant)	.540	.181		2.977	.003
	YLCD	.264	.076	.234	3.454	.001
	QC	.498	.073	.441	6.828	.000
	TL	.046	.059	.046	.777	.437
	RP	-.004	.052	-.005	-.083	.934
	PT	.089	.044	.098	2.004	.046
	CSL	-.068	.046	-.079	-1.472	.142
a. Dependent Variables: Youth Group Tourism Consumption Decision						

# **SWOT Analysis and Countermeasure on the Sustainable Development of Phuket Vegetarian Festival**

**Ke He**

Faculty of International Studies  
Prince of Songkla University, Phuket Campus  
Phuket 83120, Thailand  
Email: ke.h@phuket.psu.ac.th

## **Abstract**

Phuket Vegetarian Festival, (or Nine Emperor Gods Festival), is an annual local event held during the ninth lunar month of the Chinese calendar at Phuket, Thailand. It has rich and colorful cultural resources and celebrates the Chinese community's belief that abstinence from meat and various stimulants will help people obtain good health and peace of mind. This paper uses SWOT analysis to study the existing situation of Phuket Vegetarian Festival, and puts forward the corresponding countermeasure proposals. In addition to interviews, secondary information in the form of media reports, tourism guidebooks, regional tourism plans and related documents are used. The analysis has led the author to the conclusion that the current exploitation of Phuket Vegetarian Festival is still in its infancy because of the weaknesses as poor image of the ritual events, contested “master narrative”, etc. This paper also puts forward countermeasures for the sustainable development of the festival such as excavating cultural connotation, promoting resource integration and industrial integration, creating specific tourism products, combining festival with wellness tourism.

**Keywords: Phuket Vegetarian Festival; SWOT analysis; cultural connotation**

## **1. Introduction**

As a kind of participatory and recreational cultural activities, festivals could play a number of significant roles in a town or region. There is some evidence that local festivals contribute to community development and to have some positive local economic impact (Allen, O' Toole, McDonnell, & Harris, 2005, p. 259). Phuket Vegetarian Festival is a colorful event held annually during the ninth lunar month of the Chinese calendar, celebrating the Chinese community's belief that abstinence from meat and various stimulants will help them obtain good health and peace of mind. Participants in the festival keep to a strict vegetarian diet for a varying number of days, normally no less than three. During the festival, vegetarian food is eaten by participants, white clothes are worn, and apricot yellow flags can be seen everywhere in Phuket town. Apart from street processions and other events including parades of worshippers carrying images through the streets, spirit mediums walking on fire or climbing bladed ladders, visitors can partake in specially prepared vegetarian cuisine made available at street stalls and markets around the island; these all form one of the most bizarre festivals in Thailand. The Festival has become world renowned for its food and its curious religious rites. According to the brochure issued by the Kathu Shrine at Phuket, this festival has been held for almost 200 years at Phuket.

This paper presents a case study of the Phuket Vegetarian Festival that is preceded by a literature review. From an empirical perspective, a following SWOT analysis will be made to evaluate the overall strengths, weakness, opportunities and threats of exploiting Phuket Vegetarian Festival. Lastly, this paper puts forward specific countermeasures for the sustainable development of the festival as well.

## **2. Research Objectives**

Based on an overview of the existing development of Phuket Vegetarian Festival, this paper aims to comprehensively assess the role the festival has played in local economic development and inheriting community culture. By examining the SWOT key elements of the festival, this paper also puts forward specific countermeasures for its sustainable development.

## **3. Literature Review**

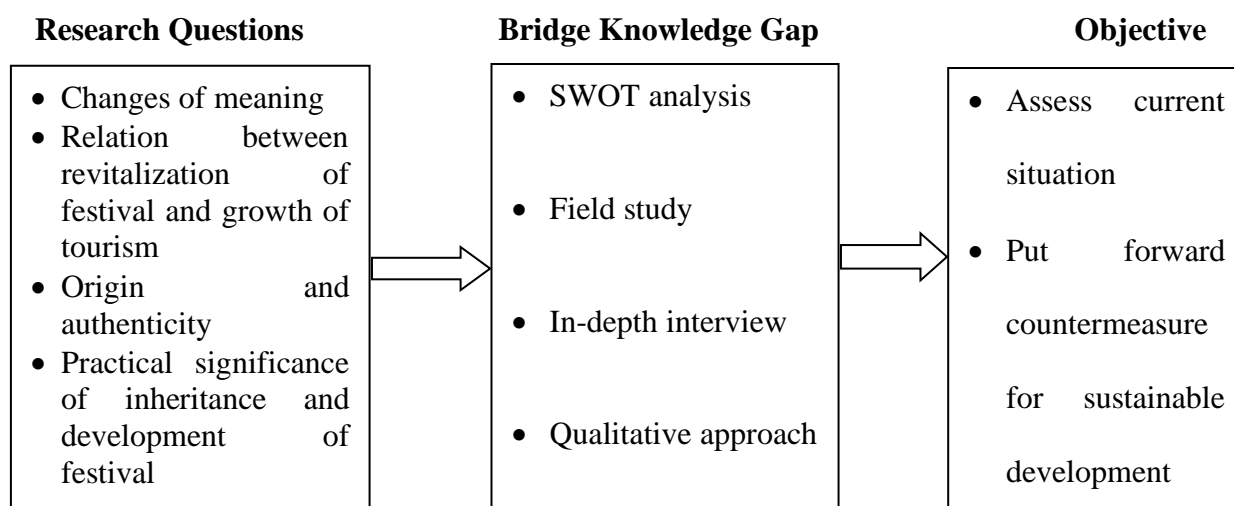
Although many studies have indeed been done on festival and events management, this literature review will primarily focus on Phuket Vegetarian Festival, which is closely related with this paper. Generally, the published works about Phuket Vegetarian Festival are not abundant and focus on its origin, religious ritual, and recent revival from the perspectives of anthropology and sociology. As to detailed ethnography about the festival, Erik Cohen's works came first. His monograph "The Chinese Vegetarian Festival in Phuket: Religion, Ethnicity and Tourism on a Southern Thai Island" is based on extended fieldwork and analyses the interrelationship between the dynamics of the festival, Chinese ethnicity in contemporary Thailand and the development of tourism at Phuket. His study shows that the festival's fundamental structure manifests a surprising degree of continuity with the basic features of mainland Chinese religious representations and ritual forms of the past even as its meaning increasingly changes from a devotional ritual to a public spectacle (Cohen, 2001, p. 184). Besides, the growth of Western vacationing tourism and the expansion of the festival, shows little direct relation to each other (Cohen, 2001, p. 191).

The topic of vegetarian festival in Thailand has also aroused the interest of some Thai scholars. For example, in his doctoral dissertation titled as "Revitalization of Tradition through Social Media: A Case of the Vegetarian Festival in Phuket, Thailand", Chaopreecha Jakraphan, a young Thai scholar, systematically discusses the festival practices, religious background, the politics of the shrine communities, and how social media has influenced the reconfiguration of the local tradition. He concludes that social media has created a space where it has become possible to observe the contestation between a hegemonic institution and subordinated people in regard to the origin, significance, and authenticity of the festival (Jakraphan, 2018, pp. 184-186). Another Thai scholar, Jessada Ninsa-nguandecha, in his paper called "An Analysis of the Nine Emperor Gods Festival and the Characteristics of Chinese Community in Southern Thailand" presents an examination of the vegetarian festival practices in Trang province of southern Thailand; summarizes the practical significance of the inheritance and development of the festival; suggests making the festival a tourism brand to promote local economic development (Ninsa-nguandecha, 2013, pp. 368-369).

Last but not least, Chinese mainland scholars' studies are an indispensable reference for this paper as Phuket Vegetarian festival was actually originated from Mainland China. By making good use of the official Chinese archives and historical records, Chinese scholars have discussed the origin, development and evolution of Nine Emperor Gods Festival. In all their published literature, Gao Weinong's "China's Nine Emperor Gods Belief and its propagation in Southeast Asia" argues that as a form of religious and cultural exchanges, the vegetarian festival in Southeast Asia is conducive to both enhancing mutual understanding between overseas Chinese and local ethnic groups and the integration of overseas Chinese into the local societies (Gao, 2002, pp. 93-97). Chen Zhiyong's "A Study of the Taoist 'Nine Emperor Gods' and the Popular

Theatre Belief” mentions that Chinese opera actors used to worship Nine Emperor Gods and there was profession habitude among them to fast during the 9th Chinese lunar month (Chen, 2009, pp. 8-13). According to the “master narrative” in Phuket, it is a traveling opera company from China (called ‘ngiu’ in Thai or ‘pua-hee’ in Hokkien dialect) to bring the festival to Phuket at the very beginning (Tourism Authority of Thailand, Phuket office/Phuket Chinese Shrines club, 2014). So Chen’s statement corroborates the “master narrative” to some extent. However, Chinese mainland scholars seemed to rarely study Phuket Vegetarian Festival through fieldwork.

In summary, the research results of scholars from different countries have provided rich and valuable references for this paper. Nowadays, Phuket Vegetarian Festival attracts not only growing numbers of Sino-Thais to participate actively in its events, but also Thai Buddhists and even some Muslim Malays from other parts of the country (Cohen, 2001, p. 179). In addition, growing Chinese travelers are reshaping Phuket’s tourism landscape as well, but there is still scarcer information on the changing role of Phuket Vegetarian Festival in the 21st century and the role of cultural resources in fostering the festival’s sustainable development. Therefore, it is necessary to make a SWOT analysis to investigate the current situation of the festival and then to put forward specific countermeasure for its sustainable development. This study will be conducted under the following conceptual framework.



**Figure 1** A conceptual framework

#### 4. Research Methodology

There are more than 40 Chinese shrines scattered around Phuket and the five oldest ones are Put Jaw, Jui Tui, Bang Niew, Cherng Talay, and Kathu Shrine. In order to investigate Phuket Vegetarian Festival, the author chose Kathu Shrine, Jui Tui Shrine and Bang Niew Shrine to conduct field researches. Beside, in-depth interviews with experts were used to obtain primary data from stakeholders of the festival such as the Tourism Authority of Thailand (TAT), Phuket Shrines Club, and Federation of Taoist Associations Malaysia. In addition, secondary information in the form of media reports, tourism guidebooks, regional tourism plans and related documents are adopted as well. A qualitative approach is more appropriate for this study and the author expounds the collected data and makes a SWOT analysis on the existing development of Phuket Vegetarian Festival. This paper also concludes with specific countermeasure for the sustainable development of Phuket Vegetarian Festival.

However, SWOT analysis does stress upon the significance of strengths, weaknesses, opportunities and threats, but categorizing these four aspects might be very subjective. As a Chinese, when conducting conversations with the Thai informants, this author could not speak or



read Thai fluently. In addition, the author has little knowledge of Thai civic religion. All these are the limitations of this research and the findings might be incomplete and require further study.

## 5. Results

A strengths, weaknesses, opportunities and threats (SWOT) analysis is employed here to identify the current situation of Phuket Vegetarian Festival. Table 1 highlights certain SWOT elements of Phuket Vegetarian Festival.

**Table 1:** The SWOT Key elements of Phuket Vegetarian Festival

Strengths		Weaknesses	
<ul style="list-style-type: none"> <li>▪ Unique and inclusive cultural connotation.</li> <li>▪ The presence of UNESCO city of gastronomy and the existence of a growing governmental support.</li> <li>▪ Competitive advantage related to the regional excellent environmental features.</li> </ul>		<ul style="list-style-type: none"> <li>▪ Poor image of the ritual events in the international context.</li> <li>▪ Contested “master narrative” and marked loss of collective memory.</li> <li>▪ Lack of in-depth instructional information and international-oriented high-quality talents.</li> </ul>	
Opportunities		Threats	
<ul style="list-style-type: none"> <li>▪ Ever-increasing Chinese tourists and popularity of Chinese learning at Phuket.</li> <li>▪ ‘Wellness Tourism’ highly requested on the international markets.</li> <li>▪ The presence of China’s 21<sup>st</sup> Century Maritime Silk Road.</li> <li>▪ Affirmation of local identity.</li> </ul>		<ul style="list-style-type: none"> <li>▪ Competitors’ activity (e.g. vegetarian festival held in Trang).</li> <li>▪ Counter argument and counter narrative from social media and other alternative spaces.</li> </ul>	

### 5.1 Strengths

In particular, Nine Emperor Gods Belief originated in China from the star worship of Taoism (Gao, 2002, p. 93). It underwent transformation in Southeast Asia and became a local tradition there. Phuket Vegetarian Festival has been syncretized with Theravada Buddhism, which is considered the civic religion of Thailand, despite its origin in Taoist belief (Jakraphan, 2018, p. 4). With its unique cultural blends, the festival is able to develop and maintain a competitive edge.

In addition, the diverse ethnic groups, culture, architectural influence have made Phuket a complete tourist destination that offers a lot more beyond its natural heritage of sea, sand, forest, and world-renowned diving sites. A document from the Luxury Signature (2016) states that Phuket became the very first city in the ASEAN country to be included in the prestigious UNESCO Creative City Listing, as announced on December of 2015. It is packed with an abundance of great places to eat, with food being a major part of the city’s cultural identity. The old Phuket town is just the venue to hold Phuket Vegetarian Festival and the vegetarian diet promoted by the festival is also one of the representatives of Phuket’s culinary arts.

In 1989, the Vegetarian Festival in Phuket was officially introduced to the public through promotions by the Tourism Authority of Thailand (TAT) (Cohen, 2001, p. 63). Since the 1990s, the festival has become the most popular event in Phuket owing to promotions made by media and government organizations touting it as a spectacular tourist event (Jakraphan, 2018, p. 3). Y. Z. Chen (personal communication, August 28, 2014) from Federation of Taoist Associations Malaysia suggested that around 1995, Phuket Provincial Office, Phuket Cultural Office, and Tourism Authority of Thailand, Phuket Office (TAT Phuket) entered the management organization of the festival. TAT Phuket and other organizations promote the festival by bringing the media from Bangkok and abroad, making the festival's guidebook, publicizing the festival on the Internet, etc. (TAT. Phuket, personal communication September 1, 2014). Besides, local governments also provide some financial support

and tax relief to develop the festival. Government organizations continue to promote the festival as a main event each year because of the potential sales of tourism related products – accommodations, foods, transportation services, and the like (Jakraphan, 2018, p. 6).

## 5.2 Weaknesses

There are some critical weaknesses that will impede the sustainable development of the festival. The local T.A.T. office received many complaints about the sight of pierced spirit mediums (Cohen, 2001, p. 167). The spirit mediums puncture their cheeks with various items including knives, skewers and other household items to manifest supernatural powers and perform self-tortures in order to shift evil from individuals onto themselves, and to bring the community good luck. Their spectacular feats of self-mutilation eventually provoked calls to restrain them, since their alleged “gruesomeness” has “gone too far” (Kantavanich, 1999, pp. 1-2). So the image of the principal ritual events of the festival is kind of bloody and barbaric; this is one of the reasons that only a small minority of Western tourists observes any of the festival events. For the Chinese visitors from abroad, the Festival is an ethnoreligious event and the attraction of the festival is that it is celebrated in Phuket on a larger scale and with considerably more spectacular displays than anywhere else in the world (Cohen, 2001, p. 166). However, compared with international tourists who happen to visit the festival, domestic tourists show more interest in the festival by growing numbers of devotees and even active participants from other regions and other ethnic groups in Thailand. This maybe because of the partial overlap between Chinese folk religion and popular Thai Buddhism, or a growing penetration of Chinese customs into Thai culture.

There is also no documentary evidence, but only a contested “master narrative” on the manner in which the festival was introduced to Phuket (Cohen, 2001, p. 184). TAT chose this “master narrative” for publication and promotion of the festival during the 1990s. According to the “master narrative”, it is a Chinese travelling opera company which grew sick from an unnamed malady while performing at Phuket brought the festival to this island, and the festival began in 1825, the Kathu Shrine is cited as the origin of the festival (TAT. Phuket/Phuket Chinese Shrines club, 2014). However, it is doubtful whether the “master narrative” of the origins of the vegetarian festival on Phuket can be historically corroborated. Besides, it is very hard to determine how and in what scope the festival, which was performed in China, has been inherited from the past to today’s Phuket. There are some historical reasons, for example, the closure of Chinese schools and the prohibition of Chinese teaching during Field Marshal Phibunsongram’s administration (Mackay, 2012, p. 405). In Phuket there was a marked loss of collective memory, expressed primarily in the decreasing ability of members of the community to read or even speak, Chinese, and in the loss of recollection of religious lore (Cohen, 2001, p. 186).

Though the festival is broadcasted through the media and related information is published in the pamphlets for distribution, there is still lack of in-depth instructional information and international-oriented high-quality talents. For example, local people or shrine members, who even can speak some English, find it hard to explain complex festival customs to respond to the foreigners’ queries. Some foreign journalists claim that they need only some basic information for the brief features they intend to write; photographers and television crews are primarily concerned with catching striking scenes (Cohen, 2001, p. 159). Without providing cultural background and religious meaning of the festival, misapprehensions among festivalgoers are unavoidable. This is unfavorable for the development of the festival. So in-depth instructional

information and international-oriented high-quality talents are essential to appeal to international tourists and make them tend to stay longer.

### 5.3 Opportunities

Phuket is attracting more and more Chinese tourists to come and Chinese travelers are reshaping Phuket's tourism landscape as well. According to Montri Manator, the deputy director of TAT Phuket, in October 2018, there were more than 120,000 Chinese tourists, which is still the number one foreign tourist group to visit Phuket (The Thaiger, 2018). The study of Chinese language has been increasingly popular when Phuketians realized the importance of the trade between Thailand and China, and support their children to learn such language (Jakraphan, 2018, p. 182). Mainland Chinese tourists might constitute the principal group of foreign visitors who come to Phuket specifically for the festival; the popularity of Chinese language is also beneficial for the dissemination and revitalization of the festival.

Nowadays, non-infectious chronic diseases (NCDs) have replaced the original dominant infectious diseases as the major global health threats to humans. With the trend of healthy lifestyle, wellness tourism, which incorporates both the prevention and promotion of physical and mental health, has been growing rapidly all over the world. Phuket Vegetarian Festival advocates self-purification of the devotees by the wearing of white garments, abstention from alcohol and sex, and above all by a strict form of vegetarianism during the festival. Eating vegetarian foods can reduce the risk of chronic diseases; the festival also enhances the spiritual and physical well being of the individual devotees.

China's 21<sup>st</sup> Century Maritime Silk Road initiative is designed to go from China's coast to Europe through the South China Sea and the Indian Ocean in one route, and from China's coast through the South China Sea to the South Pacific in the other (He, 2017, pp. 9-11). It is aimed at establishing and strengthening partnerships among the countries along the "Road", and friendly, inclusive, reciprocal and tenacious are its cultural connotation (People.cn, 2014). The widening dissemination of Phuket Vegetarian Festival is one manifestation of the broader process of a growing penetration of Chinese customs into Thai culture, and the strengthening of a Chinese component in the Thai national identity (Cohen, 2001, p. 194). With the deepening of cooperation and exchanges between China and Thailand, the festival will receive more support and opportunities.

Phuket city's old Sino-European buildings and shop-houses are now more respected by the affluent locals for their heritage, cultural and economic value and now being restored by locals and foreigners (Mackay, 2012, p. 414). Phuket was the first province where the identity of Chinese descendants has been emphasized and Chinese descendants in Phuket have a chance to disseminate their local identity all over Thailand (Jakraphan, 2018, p. 14). Phuket Vegetarian Festival, which has become the principal manifestation of Chinese folk religion on Phuket Island, can be conceived as not only a migrant festival of renewal and purification, but also an opportunity to exhibit Phuket local identity. As the only Chinese festivity that gives communities an annual opportunity to celebrate together, Phuket Vegetarian Festival has important implications for the affirmation of local identity.

### 5.4 Threats

With respect to its size and conspicuousness with which the festival is staged, the city of Trang is Phuket's main rival (King, 1989, p. 34). The assertion that the festival was introduced to Phuket directly from China enables the Phuketians to claim primacy over other localities in southern Thailand that celebrate the festival, but the Chinese community in Trang contests Phuket's primacy and claims that the festival was first celebrated in Trang (Cohen, 2001, p. 53). Ninsa-nguandecha (2013) also states that around 1857, a Chinese named Guo Shami (郭沙弥) arrived in the Kantang City Municipality of Trang province and he's the first Chinese to bring the Nine Emperor Gods Festival

to Thailand. Besides, because of its creation of the conjoint procession, the vegetarian festival in Krabi might become increasingly popular with domestic devotees and Chinese pilgrim-tourists from Malaysia and Singapore who presently stream in large numbers to other established festival centers of southern Thailand (Cohen, 2012, p. 19).

Another threat is the impact of counter arguments and counter narratives about the festival from social media and other alternative spaces. Ironically, the unique cultural blends of the festival could be the source of this threat. For example, the Young Hutkua Club and the Taoist priests group in Phuket deny the “master narrative” and standard practices of the major shrines and have become excluded people from the public sphere of the shrines. To maintain their personal beliefs and practices, they initiate their alternative spaces in their private house, small shrines and eventually on social media (Jakraphan, 2018, pp. 105-109). The counter arguments, counter narratives and different religious practices in private spheres are effective in changing the perception of Phuketians towards the festival.

In addition, there could be treats from other Southeast Asia countries. The vegetarian festival, otherwise known as the Festival of the Nine Emperor Gods in Malaysia, may be seen not only as a spiritually inspired religious celebration, but also as an economically motivated religious fair (Cheu, 1996, p. 50). The large scale involvement of believers and celebration of the festival have made Nine Emperor Gods become one of the most popular local beliefs in Malaysia, the devotees also included other foreigners like Thais, Indians and Western tourists. Take the “Tow Moo Keong” temple at Lebuh Noordin, Penang for example, many activities and vegetarian stalls set up during the festival attracted great crowds of believers and tourists thus bringing economic boost for the island of Penang (Koay, 2012, p. 2-4).

## **6. Discussions and Conclusion**

Phuket Vegetarian Festival is a distinctive festival with regional characteristics and mysteries. The festival has stakeholders that include Chinese shrines club, Phuket Provincial Office, Phuket Cultural Office and TAT, tourism companies, hotels, vegetarian restaurants, local cooking oil manufacturers, and other local catering enterprises. However, what will the cultural blending and collision bring to the festival? How to make Phuket Vegetarian Festival both a celebration of cultural identity and an international event? These are major issues for future researches.

Based on the SWOT analysis above, the author puts forward following specific countermeasure for the sustainable development of Phuket Vegetarian Festival.

Firstly, clear development orientation and correct principle of exploitation are needed. How should the festival be developed, as a festive activity or local tradition? Whatever the ulterior intent the TAT may have had in choosing to dub it the “Phuket Vegetarian Festival” (thus under-emphasizing its Chinese ethnic character) the festival tends to become just that – a festival of the island community and not just of one ethnic group (Cohen, 2001, p. 114). In addition, “protection first, development second” idea should be the principle of the exploitation; the development should be based on the fully understanding and respect for the local cultural connotations. Otherwise, the organizers should further excavate and interpret the culture of Phuket Vegetarian Festival and enrich its connotation. They can conduct seminars and encourage government cultural departments, academic groups, and enterprises, even the excluded people to carry out research to provide theoretical and intellectual support for the development of the festival. They also need to dialogue with representatives from the artistic and cultural sectors to optimize promotional exposure before, during and after the festival.

Secondly, creating a festival with the characteristics of Phuket. The festival originated from a Chinese folk religion, but folk religions often change due to the migration of the ethnic groups and the influence of the natural environment. For instance, the festival is syncretized with local beliefs and civic religion in Malaysia and Singapore; it has also been combined with the practices of Theravada Buddhism in various provinces in Thailand (Jakraphan, 2018, p. 14). Unlike some other tourist-oriented festivals in Thailand, Phuket Vegetarian Festival manifests a remarkable extent of structural continuity to ritual forms common in Chinese folk religion in the past (Cohen, 2001, p.

193). That's why many visitors from Malaysia and Singapore still come to Phuket to attend the festival. So the sustainable development of the festival should be based on fully grasping local characteristics.

Thirdly, promoting resource integration and industrial integration. Events have an impact on local, state and national economies through investment, employment and income, they also generate increased tourism and media coverage that leads to increased visitation and awareness of the host destination (Jack, 2004, p. 246). Phuket is a famous tourist destination with mature and rich tourism resources; effective integration of various resources to promote the organic integration of the festival and tourism is the key to development. Phuket Vegetarian Festival could be best preserved in the process of host-guest interaction and participation. It is also significant that the tourist season at Phuket begins just after the festival, so the festival could be used as a means of extending the tourist season. Local tour operators can encourage visitors to take pre-festival and post-festival tours, produce day tours and provide convenient transportation from beaches to the major venues of the festival. Besides, vegetarian foods, cloths might be designed as souvenirs and tailor-made tour services could be designed to cater for tourists' particular needs. As vegetarianism became trendy, the festival can also be developed with the help of the concept of wellness tourism; vegetarian foods as an emerging trend would be a catalyst for upgrading tourism products and services in a broader context.

Fourthly, strengthening international cooperation and cultivating international-oriented talents are necessary. However, the competition from vegetarian festivals hold in Trang or other countries could be viewed as a double-edged sword. It is possible to function in an increasingly global environment while expressing the uniqueness of local communities. The organizers of Phuket Vegetarian Festival should develop communication and cooperation with other host countries and China in order to improve the international image of the festival. Otherwise, the development of the festival greatly depends on recruiting and retaining professionals of the right caliber. There is still a lack of high-end planner and expertise for the festival (Y. Boonpektrakul, personal communication, August 20, 2014). So organizers should increase investments in training of shrine member, local volunteers, and tourism professionals and cultivate existing personnel to become international-oriented high-quality professionals.

Despite a careful research design and data analysis, the research findings mentioned above should be applied with caution. And there are such possible challenges for the development of Phuket Vegetarian Festival in the near future as loss of the past ambience, growing commercialization, maintaining a balance between preserving tradition and boosting tourism, etc. Therefore, future research may focus on the exploitation strategy, marketing and intra-organizational coordination, and personnel training of the festival.

## 7. References

Allen J., O'Toole W., McDonnell L., & Harris R. (2005). *Festival and Event Management*.

Milton, QLD: John Wiley and Sons Australia Ltd.

Chen, Z. Y. (2009). A Study of the Taoist 'Nine Emperor Gods' and the Popular Theatre Belief.

*Religious Studies*, Vol (9), 8-13.

Cheu, H.T. (1996). The Festival of the Nine Emperor Gods in Malaysia: Myth, Ritual, and

Symbol. *Asian Folklore Studies*, Vol (55), 49-72.

Cohen, Erik. (2001). *The Chinese Vegetarian Festival in Phuket: Religion, Ethnicity and*

*Tourism on a Southern Thai Island*. Bangkok: White Lotus Co., Ltd.

Cohen, Erik. (2012). The vegetarian festival and the city pillar: the appropriation of a Chinese

- religious custom for a cult of the Thai civic religion. *Journal of Tourism and Cultural Change*, Vol (10), 1-21.
- Gao, W.N. (2002). China's Nine Emperor Gods Belief and its propagation in Southeast Asia. *AROUND SOUTHEAST ASIA*, Vol (3), 93-97.
- He, K. (2017). Belt and Road (B&R) Initiative and its impact on ASEAN integration: From a perspective of structural realism. *Asian International Journal of Social Sciences*, Vol (4), 4-27.
- Jack, C (2004). The economics and evaluation of festivals and events. In Ian, Y., Martin, R., Jane, A., Siobhan, D., & Una, M (Ed.). *Festival and events management: an international arts and culture perspective* (1<sup>st</sup> ed., pp. 246-259). Burlington, MA: Elsevier Ltd.
- Jakraphan, C. (2018). *Revitalization of tradition through social media: A Case of the Vegetarian Festival in Phuket, Thailand* (Doctoral Dissertation), Hiroshima University, Japan.
- Kantavanich, S. (1999). Gruesome festival "had gone too far". *Phuket Gazette*, 1 October, 1-2.
- King, A. W. (1989). Where the medium is the message. *Bangkok post*, 1 October, 25-34.
- Koay, S. K. (2012). *Malaysian Nine-Emperor God's varieties: A case study on "Tow Moo Keong" temple at Lebu Noordin, Penang* (Master Dissertation), Tunku Abdul Rahman University, Malaysia.
- Luxury Signature. (2016, January). Phuket Named "City Of Gastronomy" By UNESCO Creative City Listing. Retrieved April 6, 2019, from <https://www.theluxurysignature.com/> from 2016/01/09/phuket-named-city-of-gastronomy-by-unesco-creative-city-listing/
- Mackay, C. (2012). *A history of Phuket and the surrounding region*. Bangkok: White Lotus Co., Ltd.
- Ninsa-nguandecha, J. (2013). Causal analysis of "Kiu Hong Seng Hoy" belief and Chinese community in southern Thailand. *Journal of the Socialism Institute of Yunnan*, Vol (6), 368-369.
- People.cn. (2014, October). *The influence and enlightenment of "Maritime Silk Road"*. Retrieved from <http://opinion.people.com.cn/n/2014/1019/c1003-25861481.html>
- The Thaiger. (2018, November). Chinese tourists still No.1 visitors to Phuket. Retrieved April 5, 2019, from <http://www.nationmultimedia.com/detail/breakingnews/30358716>
- Tourism Authority of Thailand, Phuket office/Phuket Chinese Shrines club. (2014). Phuket

Vegetarian Festival (or the Nine Emperor Gods Festival). Retrieved from [https://www.tourismthailand.org/fileadmin/upload\\_img/Home\\_news/Vegetarian Fes 2014.pdf](https://www.tourismthailand.org/fileadmin/upload_img/Home_news/Vegetarian_Fes_2014.pdf)

# **Sustainable Tourism Perception of local population perception and Commitment towards Festivals in Bangsaen City, Thailand**

**Parinya Nakpathon<sup>1</sup>, Kanjansit Chinapha<sup>2</sup>, Nattapat Rakkijwanittanadee<sup>3</sup>, Parichart Veeraphan<sup>3</sup>, Kantaphon Akepat<sup>3</sup>, Pandara Chajang<sup>3</sup> and Gao Li Juan<sup>3</sup>**

International Hospitality & Tourism Management Program<sup>1</sup>  
Burapha University International College  
Chonburi 20131, Thailand  
Email: parinyan@go.buu.ac.th

International Hospitality & Tourism Management Program<sup>2</sup>  
Burapha University International College  
Chonburi 20131, Thailand  
Email: [kcp2991@hotmail.com](mailto:kcp2991@hotmail.com)

Undergraduate students, International Hospitality & Tourism Management Program<sup>3</sup>  
Burapha University International College  
Chonburi 20131, Thailand

## **Abstract**

The economy of Thailand is mostly depending on the tourism industry which is specially in Festival or famous events in each province. Chonburi Province is one of famous tourism destination in Thailand due to beautiful beach, plenty of accommodations, variety seafood, quality of local services, special festival in whole year and etc. Nowadays, over tourism is a main problem during on festival affecting to local. This research objectives aim 1) to study the sustainable tourism perception of local community toward festival in Bangsaen City 2) To Study the factor affecting of local people on sustainable tourism investigate the contributed factor and 3) To develop and implement sustainable festival in Bangsaen City. A total of 400 questionnaires were distributed to local people who were taking business at Bangsaen beach City, Thailand during February 1-15, 2019. The statistical methods conducted to analyze the data are descriptive statistics and multiple regression analysis. The multiple regression model shows that sustainable tourism perception as the predictor, in order to predict the local population perception and local population commitment in Bangsaen City, Thailand. The finding shows that there are 1 component of sustainable tourism affecting to local population perception which is social - ( $B = 0.221B$ ,  $p = 0.000$ ). In addition, the local population perception has a positive effect to local population commitment with affecting size as ( $B = 0.821$ ,  $p = 0.000$ ). The research finding can announce the Bangsaen Municipal and business owners to maintain sustainable tourism for festival in Bangsaen City, Thailand.

**Keywords:** Sustainable Tourism, Perception of Local Population, Commitment, Festival

## **1. Introduction**

Tourism is one of the world's fastest growing industries and is a major source of income for many countries. Being a people-oriented industry, tourism also provides many jobs which have helped revitalize local economies. (Bulbeck, 2005). Tourism is the way to exploring the



place, culture, people, food and gain the new experience. Sustainable tourism is a way of traveling and exploring a destination while respecting its culture, environment, and people. Many people do travel. And, peoples are exploring the world around them. But, Sustainable Tourism is the way that people go visits the destination with the positive perception to the destination and the positive impact to the environment. (Dickinson, Lumsdon, 2010)

"Bangsean" is the area in Chonburi province, Thailand. Located in the eastern part of Thailand between Bangkok and Pattaya. Surrounding with natural beach, coastal environment and attraction. Such as Bangsean Beach or Khao Sam Muk mountain. Bangsean is Rich in resources of natural environments, convenient transportations, accommodations that easy to access, available space for organizing the MICE venue, and nice local lifestyles. Because of this characteristic of Bangsean attract more tourists come here and local people got more profits from tourists. According to local people income statistics, statistics of Bangsean in 2019 have gained the revenue approximately 8,133.24 million Baht from tourists. (Department of Tourism, Ministry of Tourism and Sports, 2016). One of the ideal makes Bangsean be more interesting in Tourism in the Festival. Bangsaen have many festivals such as Food festival, Car festival and tradition festival like Wan Lai festival which is very popular in Bangsean, and also Charity event as well. Festivals are the part of success factor of Tourism in Bangsean. Local people can gain benefit from selling goods and foods inside the festival. Hotel in Bangsean also can sell the accommodations for tourist, and the number of tourist can be increase more during festival in Bangsean,so that local people can get more income during festival period. (Daichi, 2013)

Before the development of tourism, it has brought a lot of bad effects in Bangsaen, such as plastic pollution, air pollution, water pollution and so on. With the deterioration of ecological environment, the development trend of sustainable tourism is becoming more and more obvious. With the development of globalization, people have more and more profound understanding of sustainable tourism, and local people have also realized the importance of sustainable development. In the future, Bangsaen's tourism industry will become more and more sustainable. (Silokwanich, 2013)

## **2. Research Objectives**

2.1 To study the sustainable tourism perception of local community toward festival in Bangsaen

2.2 To Study the factor affecting of local people on sustainable tourism investigate the contributed factor

2.3 To Develop and implement sustainable tourism in festival

## **3. Literature Review**

### **3.1 Sustainable Tourism**

Sustainable Tourism is the concept of visiting somewhere as a tourist and trying to make a positive impact on the Environment to development of tourism has brought a large number of tourists, thus placing a great burden on the local ecological environment. The reduction of natural resources, the reduction of species of marine and terrestrial organisms, and the pollution of natural environment are harmful to the environment because they destroy the balance and renewability of the ecosystem to be adversely affected by tourism. Environmental sustainability focuses on the health and viability of ecosystem. The development of sustainable to tourism can not only meet the local demand for economic growth, but also enhance the renew ability of the ecosystem, protect natural resources and maintain ecological balance. In a word, sustainable development tourism has a great positive impact on the environment. In order to prolong the development cycle of Bangsean tourism, Sustainable development is imperative.

Society Important in the difference between "impact" in the definition of influence that affects society and direct self-transmission. The arguing about what is happening today is the need to accept when society changes continuously. Localities may differ from each other, possibly reflecting global demand. But requires frequent level of consensus based on the foundation of human dignity and opportunity which is the most urgent matter for disadvantaged populations and those who lack the necessary resources or services. Finally, the important thing is to attract for two reasons. The first thing is social progress, requires a deep structural movement of the status quo. And solving problems caused by problems or "social impacts" is becoming more popular and often misused to indicate a simple change In order for us to have a potential and persuasive period, we have to claim that social impacts mean significant changes in society.

The Economic is to development of Tourism has had a positive or negative impact on Bangsaen Positive impact is provides more employment opportunities for local residents and increases the government fiscal revenue and foreign exchange revenue. Negative Impact is the Jobs provide by tourism enterprises are not guaranteed in the long run, and the income generate may not be returned to the local area. People focus on tourism development that has led to many ecological and social problems, so the development of sustainable tourism is becoming more and more obvious. Sustainability includes natural, economic and social aspects. Natural sustainability refers to protecting the regeneration ability of natural ecological environment and maintaining natural resources and environment. Economic sustainability refers to maintaining stable economic growth. Social sustainability refers to meeting the basic needs of the society and ensuring the fair distribution of resources and income.

Sustainable tourism destination is committed to making a low impact on the environment and local culture, while helping to generate future employment for local people. The positive of sustainable tourism is to ensure that development is a positive experience for local people and tourists themselves.

### **3.2 Sustainable perception toward local community**

Communities that are related to people living together in a central area between people and the environment around the community the local community is aware of the problems of local people in terms of society, living, economy, education and monarchy. Is a common area of people in the community in order to have people listen and willing to help resolve the important part is interdependence and responsibility, common goal. Making it happy and lasting. Local perception refers to the different mental processes that we use to form impressions of other people. This includes not just how we form these impressions, but the different conclusions we make about other people based on our impressions. Consider how often you make this kind of judgments every day. When you meet with a new co-worker, you immediately begin to develop an initial impression of this person. When you visit the grocery store after work, you might draw conclusions about the cashier who checks you out, even though you know very little about this person.

The concept and attitude of local community towards sustainable development is an important factor in the development, management and planning of local tourism in the future. In terms of demographic variables, age, gender and education are important factors affecting residents' perception. Therefore, in order to achieve sustainable tourism, it is necessary for local community to have a clear conception of sustainability. Only when they have a clear conception of sustainability, can they make good use of it in practice and promote the development of sustainable tourism.

At the beginning, Bangsaen local community group's conception of sustainability is not clear. People support the development of tourism because the development of tourism brings them more employment opportunities and more income. Later, with the development of business and the increase of tourists, the bad effects of environmental pollution make the local community's attitude to the development of tourism worse.

With the development of globalization, people's conception of sustainability is becoming more and more widespread. More and more people realize that sustainable development is conducive to the development of tourism and apply it to practical operation.

### 3.3 Bangsaen City & Festivals in Bangsaen

Bangsaen Beach in the Gulf of Thailand Located in Saen Suk Sub-district Mueang Chon Buri District Chonburi Province, Bang Saen, formerly a desolate beach and is popular with tourists Including a sandy beach near Bangkok. Bangsaen have a lot of tourist attraction for the example is Nong Mon, Nong mon market is the source of souvenirs Fresh and dried food and various kinds of sweets Most shops are famous and accepted Guarantee the deliciousness from many channels on the TV and the word of mouth. Nong Mon market still lacks development in products that help attract tourists. But at present, still has been selling sticky rice in bamboo joints and snacks as well as ever since in past. And the Kao Sam Mook with monkeys living in the mountain also, can visit and feed monkey food (banana) can both walk in and use cars and there are also a la carte restaurant or seafood and cafes near the sea

Bangsaen have around 10-20 festivals in one year. Festival always come with Peoples as the participant, shop owner, or the visitor. Festival can come with so many shops, or some exhibition inside. In Thailand has so many festivals. In every month and every Provinces. Most are related to Thai culture and History. Such as Wan Lai Festival, Wan Lai Festival is held after Song Kran Day for who missed the water flight you will get second chance, but not every province celebrates in Wan Lai Festival. And Wan Lai Festival is popular festival in Bangsaen and there held Sand Sculptures on Bangsaen Beach as the part of WanLai. Most of these are in the form of sand pagodas known as Chedi sai. Also, the sport events or sport competitions are the main festival of Bangsaen. The Charity event comes to the new ideal for Bangsaen.

Table 1: The lists of Festivals in Bangsaen in 2018

Month	Festivals	Period
January	Bangsaen Countdown 2018	1 Jan
	Bangsaen Health Festival	19-20 Jan
	Bangsaen Art and Drawing Competition <sup>2</sup> by Rambhai Barni Rajabhat University	29 Jan
February	ThaiRun Bangsaen	3 Feb
	Bangsaen Triathon 2018	23-25 Feb
March	CPF Sea Run	18 Mar
	PolyWorks Conference Thailand 2018	25 Mar
April	Wan Lai Festival 2018	15-17 Apr
May	Bikini Beach Race 2018	19 May
June	That Eat Art Gastronomy 2018	29 Jun - 1 Jul
July	Bangsaen Grand Prix 2018	11-15 Jul
	Chonburi Run For King 2018	29 Jul
August	Charming Chonburi Festival	4 Aug
	Bangsaen Music in the rain 2018	31 Aug - 1 Sep
September	FUN RUN 1000 x 1000 Bangsaen Running 2018	2 Sep
October	Charity Concert for BUH 2018	14 Oct
November	Bangsaen 42 – The Passion of world-class Marathon.	4 Nov
	Bangsaen Power boat competition 2018	10-11 Nov
December	PRUcycle Thailand Bangsaen	1-2 Dec

Month	Festivals	Period
	Bangsaen Half-Tarathon 2018	15-16 Dec

## 4. Research Methodology

### 4.1 Research Methodology

In order to measure what local population thought they will get from Bangsaen, Chonburi Thailand; the collection of information was facilitated by using questionnaire. A research instrument was developed by researchers, which was questionnaire by gathering useful data from previous studies as stated and cite in literature review. A questionnaire consisted of four parts. The first part, socio-demographic characteristics that were age, gender, status, education level, occupation, average income. Part two of questionnaire consisted of 9 items which related to affecting to sustainable tourism including 3 attributes which were environment, social and economic. The third part identified local populations' perception including 6 items. The recommendation was the last part in order to know local perception in Bangsaen, Chonburi Thailand. Respondents in study were requested to evaluate perception using a 5-point Likert scale ranging from 1-5 by 5 as 'very high perception', 4 as 'perception', 3 as neutral, 2 as 'low perception', 1 as 'very low perception' respectively.

### 4.2 Data analysis

Data analysis was completed by using Statistical Programmed for social sciences (SPSS). Data were evaluating by using a range of statistical techniques. Frequencies and percentage score for nominal variable. Including with socio-demographic were summarized. Local population perception toward Sustainable tourism in Festival were evaluated by regression analysis.

### 4.3 Research Framework and Research Hypothesis

From numerous studies, exploring the sustainable tourism perception of local community toward festival, were presented in Figure 1.

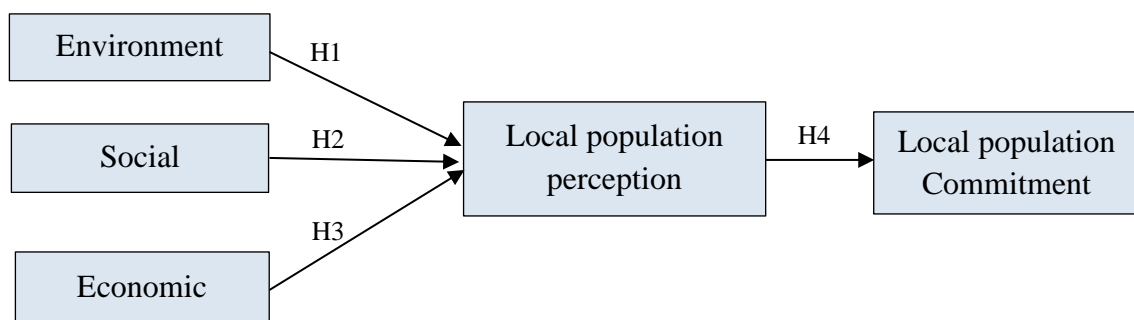


Figure 1 The Propose Framework

Accordingly, to the above theoretical framework, the following research hypotheses are formulated:

H1: Environment Impact has an affected on Local population's perception

H2: Social Impact has an affected on Local population's perception

H3: Economic Impact has an affected on Local population's perception

H4: Local population perception has an affected on Local population's commitment

## 5. Results

### 5.1 Socio -Demographic

The socio-demographic characteristics are presented in Table 2, identifies the majority of respondents' gender is female about 61.3%. Most of their age is between 31-40 years old (35.5%). Most of respondents are married about 42.3% who graduated in high school level in 38.3%. Most local people who answer this question are business owner in 49%, most of them sell a street food about 29.3% and gaining the amount income from 10,001 to 15,000 Baht in 29.3%.

Table 2 Socio -Demographic Characteristic of Respondents (N = 400)

Variable		N=400	Percentage
<b>Gender</b>	Male	155	38.8
	Female	245	61.3
	<b>Total</b>	<b>400</b>	<b>100</b>
<b>Age</b>	Less than 20	47	11.8
	21-30	109	27.3
	31-40	142	35.5
	41-50	66	16.5
	More than 50	36	9.0
	<b>Total</b>	<b>400</b>	<b>100</b>
<b>Status</b>	Single	161	40.3
	Married	169	42.3
	Divorced	46	11.5
	De Facto	24	6.0
	<b>Total</b>	<b>400</b>	<b>100</b>
<b>Education</b>	Less than High School	132	33.0
	High School	153	38.3
	Bachelor Degree	71	17.8
	Higher bachelor Degree	5	1.3
	Others	39	9.6
	<b>Total</b>	<b>400</b>	<b>100</b>
<b>Occupation</b>	Business Owner	196	49.0
	Employee	197	49.3
	Other	7	1.8
	<b>Total</b>	<b>400</b>	<b>100</b>
<b>Product</b>	Grill Chicken	49	12.3
	Street food	117	29.3
	Clothes	37	9.3
	Seafood	54	13.5
	Torus	23	5.8
	Souvenir	19	4.8
	Beverage	51	12.8
	Water sport	7	1.8
	Other	43	10.8

Variable		N=400	Percentage
	<b>Total</b>	400	100.0
<b>Income</b>	Less than 10,000	99	24.8
	10,001-15,000	117	29.3
	15,001-20,000	93	23.3
	20,001-25,000	44	11.0
	25,001-30,000	15	3.8
	More than 30,001	32	8.0
	<b>Total</b>	400	100.0

### 5.2 The Result Sustainable Tourism towards Perceptions of Local Community

According to table 3 shows, the result of regression analysis of between sustainable tourism perceptions of local community towards festival in Bangsean. There is only one significant dimension which is social, the most effect towards satisfaction is experiencing value (B = 0.434, p-value = 0.000). The reason is the friendliness of local people in Bangsean, they are welcome tourists the same as the family or relation.

Table 3 Sustainable Tourism towards Perceptions of Local Community

	Unstandardized	Coefficients Std. Error	Standardized Coefficients Beta	P- Value
Environment - Local population perception	0.79	0.065	0.064	0.225
Social - Local population perception	0.434	0.105	0.221	0.000**
Economic - Local population perception	-0.113	0.061	-0.091	0.067

\*\* P-value < 0.05

In Table 4, the result of the regression between local population's perception and local population commitment. It shows that perception is really high impact as shown that p-value is below 0.005 which indicates that when the local population are perception, this leads to Local population Commitment positively. According to the result, table 5 shows the conclusion of hypothesis testing on the effect.

Table 4 Local population's perception toward Local population Commitment

	Unstandardized	Coefficients Std. Error	Standardized Coefficients Beta	P-Value
Local population's perception - Local population Commitment	0.803	0.023	0.821	0.000**

\*\* P-value < 0.05

Table 5 Result of Hypotheses Conclusion

Relationship	Independent Variable	Dependent Variable	Result
H1	Environment	Local population perception	Do not reject
H2	Social	Local population perception	Reject
H3	Economic	Local population perception	Do not reject
H4	Local population perception	Local population's commitment	Reject

## 6. Discussion and Conclusion

At present, most people, whether women or men, teenagers or the elderly, have more world outlook. The festival is another factor that makes people interested and a center of attraction to both locals and tourists

In our research, we therefore see the factors and problems of people in the communities that trade at the Bangsaen beach festival. Chonburi province by focusing on the attitudes and perceptions of the local population on the Bangsaen beach festival. Which came out that most local people had the most social satisfaction Moderate environment And less economic Finally, from research, we found that local people gave the good relationships with nearby people and accepted the current society because, besides the festival, enjoyment also gained social exchange and culture as well People who trade in the area of Bangsaen beach are the original capital. Most of them have traditional business from their own families, and have settled in locations that are already selling products, including festivals in Bangsaen Beach. Frequently held events, so they do not see environmental and economic problems much.

However, the local people accepted the festival in Bangsaen, Chonburi. It is good because Bang Saen has a festival that is often organized. Adaptation to society and cooperation of local people towards the festival makes the work go smoothly. Both tourists Event organizers and traders make Bangsaen, Chonburi province. Can fully and can increase the income from tourists who come to the festival well.As well as being able to further improve the environment and the future economy as well.

## 8. References

- Amy, D. (2009). Local perceptions of tourism as indicators of destination decline. *Tourism Management*, 30(4), 512-521.
- Gossling et al. (2010). Sustainable tourism. Retrieved from [https://en.wikipedia.org/wiki/Sustainable\\_tourism](https://en.wikipedia.org/wiki/Sustainable_tourism) (March 10, 2019).
- Juan,I. & López, S. (2014). Perception of Sustainability of a Tourism Destination: Analysis from Tourist Expectations. *International Business & Economics Research Journal (Special Issue)*, 13(7), 1587 - 1598.
- Kredra, C. (2019). *Perception and Impressions of Others*. Retrieved from <https://www.verywellmind.com/person-perception-2795900> (March 10, 2019).
- Rezhen, R. & Gabriela. C, (2018). *Attitudes and Perceptions of the Local Community towards Sustainable Tourism Development in Kurdistan Regional Government, Iraq*. Retrieved from [https://www.researchgate.net/publication/327189081\\_Attitudes\\_and\\_Perceptions\\_of\\_the\\_Local\\_Community\\_towards\\_Sustainable\\_Tourism\\_Development\\_in\\_Kurdistan\\_Regional\\_Government\\_Iraq](https://www.researchgate.net/publication/327189081_Attitudes_and_Perceptions_of_the_Local_Community_towards_Sustainable_Tourism_Development_in_Kurdistan_Regional_Government_Iraq) (March 11, 2019).
- Sharareh, A. & Badaruddin, M. (2013). *Local Perception of Tourism Development: A*

- Conceptual Framework for the Sustainable Cultural Tourism*. Retrieved from [https://www.researchgate.net/publication/315033670\\_Local\\_Perception\\_of\\_Tourism\\_Development\\_A\\_Conceptual\\_Framework\\_for\\_the\\_Sustainable\\_Cultural\\_Tourism](https://www.researchgate.net/publication/315033670_Local_Perception_of_Tourism_Development_A_Conceptual_Framework_for_the_Sustainable_Cultural_Tourism) (March 12, 2019).
- Social Impact: *What Does it Really Mean?*. Retrieved from <https://buildabroad.org/2017/03/03/social-impact> (March 12, 2019).
- Travelfish Pty Ltd. (n.d). *Bangsaen Travel Guide. Thai-style beach town*. Retrieved from [https://www.travelfish.org/location/thailand/eastern\\_thailand/chonburi/bang\\_saen](https://www.travelfish.org/location/thailand/eastern_thailand/chonburi/bang_saen) (March 15, 2019).
- Weijing, Z. (n.d). *Tourist's perception of sustainable Tourism Development of Tianzhu Mountain in Anhui Province, China*. Retrieved from <http://www.assumptionjournal.au.edu/index.php/AU-GSB/article/viewFile/447/398>



# A Comparative Study of the Development Situation and Trend about Tourism Standardization between China and Thailand

Si Zhang<sup>1</sup> and Ling Yun Zhang<sup>2</sup>

Beijing International Studies University<sup>1</sup>  
Chaoyang District 100024, Beijing  
Email: 2134129177@qq.com  
Beijing International Studies University<sup>2</sup>  
Chaoyang District 100024, Beijing  
Email: [17812098187@163.com](mailto:17812098187@163.com)

**Abstract:** In Asia, Thailand and Chinese tourism developed rapidly. China is Thailand's largest tourist source. In the development of tourism standardization, China and Thailand have some similarities for better industry management and improving the quality of services. Thailand's standards focus on the service norms of tourism enterprises, mainly about cruise ships, catering, public toilets and so on. In contrast, Chinese tourism standardization system is regarded as a complementary management tools, but its effectiveness and the degree of international participation are not high enough. The purpose of this paper is to strengthen the docking of China-Thailand tourism standards and improve the quality of tourism services.

**Keywords:** Tourism; standardization; Thailand tourism standardization; Comparative study

## 1. Introduction

The international standardization originated in Europe. Tourism standardization appeared after the 1980s and ISO (International Organization for Standardization) was founded in 1947. Up to now, international tourism standardization has established the technical committee on "Tourism and Related services" (ISO/TC228) in 2005. At the regional level, the European Association for Standardization (CEN) set up the Technical Committee on Standardization of "Tourism Services" (CEN/TC329). Thailand Tourism Report (2018, p.19) found that Thailand's tourism industry is one of the best developed in the world and in the Asia-Pacific region in particular. Therefore Thailand attached great importance to the standardization of tourism. Thai Industrial Standards Institute (TISI) was the National Standardization Agency of Thailand.

Likewise, China Tourism Standardization was actively integrated into the world and became one of the observers for ISO/TC228 in 2001. (Ling Yun-Zhang & Li Ron-Zhu, 2011, p.12) The internationalization of tourism standardization in China and Thailand has increased, but cooperation based on tourism standardization between the two countries needs to be strengthened.

## 2. Method

### 2.1 Comparative study

Comparative study should be a scientific method, a scientific method to make various evaluations and interpretations of similarities and differences between similar or similar disciplines (at least with a sufficient degree of common attributes), to compare and discuss their

multi-country, multicultural or multi-social factors. In short, it is to explain the similarities and differences between all the factors in the social environment. ( Bin-Yu & Jia Wei-Li, 2016, p.23)

This paper makes a comparative analysis of Thai tourism standards and Chinese tourism standards by means of comparative research.

#### 2.2 Date collection and collation

Collect information through the official website of Thailand Tourism Management Department and the official website of China Tourism Management department, and then collate and draw useful information.

### 3. Current situation of tourism standardization development in Thailand

#### 3.1 National standardization Development profile of Thailand

The standardization management in Thailand is the responsibility of the Ministry of Industry, the Ministry of Agriculture, the Department of Health and other departments. Thailand's national standards are mainly developed and released by TISI, whose main responsibility is to meet Thailand's own industry, trade and economic development needs by setting mandatory and recommended industrial standards. TISI has 4 standards offices in charge of standard setting, certification and supervision of related products, as well as laboratory accreditation, personnel training and registration agencies.

TISI has made 'standard strategy 2016-2020' hoping that by implementing the values of "integrity, ethics, collaboration and internationalization", Thailand can obtain the benefit of standards, So Thailand's standardized products and services will get the world recognition. ( Jia-lin Mo & Yan-ju Wei, 2018, p.18-19).

#### 3.2. Government management bodies and functions of tourism in Thailand

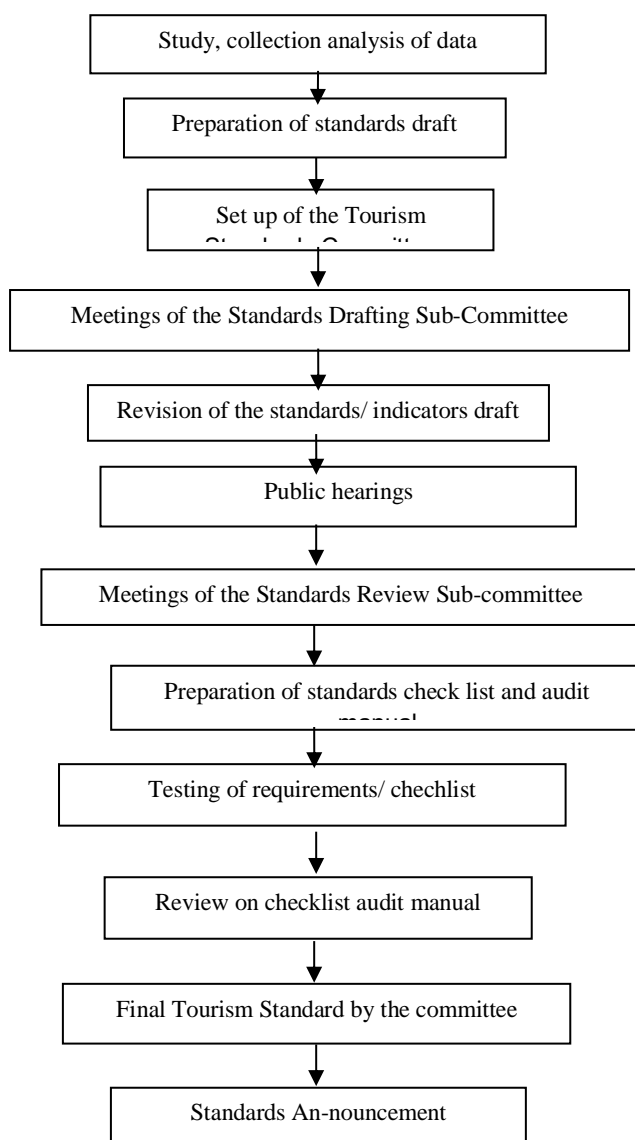
Thailand's tourism management system is similar to Chinese, which is centralized. Thailand Tourism Management agencies are: Thailand Tourism Management Committee, Ministry of Tourism and Sports, local tourism agencies. Thailand set up a total of nine tourism offices throughout the country, responsible for the development and management of tourism. Its main duties are: to attract investment, establishing relevant standards to maintain local market order and so on.

#### 3.3. A brief introduction to Thailand's tourism standards

Thailand attaches great importance to the standardization of tourism, mainly about the following two aspects: using standards as a control tool for investment and development, and establishing tourism quality standards to ensure the protection of natural resources and local communities. Thailand has established the National Tourism Standards Committee (NTSC), with 6 sub-technical committees on "destination", "accommodation", "tourism activities", "tourism services", "tourism practitioners" and "public toilets". For instance, the Foundation of Standard and Human Resources Development in the Service and Tourism Industry, a nonprofit organization, was founded to administer all aspects of implementing the Thailand Hotel Standard (Narangajavana, Y, & Hu, B, 2008, p.35)

Over the past 20 years, Thailand has proven to be one of the world's most resilient tourism destinations (Beirman, D, 2018, pp.278-279). In order to enhance the quality of tourism services for inbound tourists, in 2011, the Ministry of Tourism and Sports urged enterprises in relevant industries to actively obtain national standards certification, including: 1) Public toilet facilities standards for international tourism. 2) Food service standards for tourism. 3) Tourist boat standards. 4) Restaurant boat standards. 5) Souvenir shop (general goods) service

standards.6) Souvenir shop (Gem Product) Service standards. Thailand's tourism standards are more stringent in its establishment and preparation procedures, which also ensures the effectiveness and sustainability of its standards.



**Fig.1.** Thailand's tourism standards formulation steps

#### 4. Status quo of tourism standardization in China

##### 4.1. A brief introduction to the development of tourism standardization in China

Chinese tourism standardization work is earlier than Thailand.early reform and opening up, in order to speed up the international pace of the hotel industry, China launched the first national standard in the field of tourism-"tourist hotel star Division and Evaluation (GB/T14308-1993)."The National Technical Committee on Tourism Standardization (No. SAC/TC210, hereinafter referred to as "National Brigade label Will") was established in 1995 and is mainly responsible for the preparation and revision of national tourism standards.

Until 2017, the National Tourism Administration presided over and centralized 32 current travel standards (note: Tourism Automobile company Qualification rating GB/T 26364-2010 was abolished in 2017), 4 tourism industry related national standards, 63 industry standards,and

23 leisure national standards (table 9, including 2 technical guidance documents) setting by the National Leisure Standards Technical Committee, a total of 122.

Compared with Thailand, Chinese tourism standards system is more comprehensive, involving a wide range of macro and micro levels. The purpose of Chinese standard setting is mainly to guide and standardize the development of the new tourism industry. More than any other economic activity, the success or failure of a tourism destination depends on its ability to provide a safe and secure environment for visitors (Batra, A, 2008, pp.89-90). Thailand is a country prone to natural disasters, so Thailand mainly keep a watchful eye on security and service. The standard is generally concentrated in the popular areas that tourists desperately need, such as: Tourist ship standards, restaurant ship standards.

**Table1**

List of existing national standards in tourism industry

Number	Standard name	Standard number
1	Classification, investigation and evaluation of tourism resources	GB/T 18972—2017
2	General principles of Tourism planning	GB/T 18971—2003
3	Division and evaluation of quality grade of tourist scenic spots	GB/T 17775—2003
4	The Division and evaluation of star stars in tourist hotels	GB/T 14308-2010
5	Specification for infrastructure management and service in tourist entertainment places	GB/T 26353-2010
6	Travel Information Consulting Center setup and Service specification	GB/T 26354-2010
7	Tourist Attractions Service Guide	GB/T 26355-2010
8	Quality of service requirements for tourist shopping places	GB/T 26356-2010
9	Code for construction of tourist hotel management information System	GB/T 26357-2010
10	Classification of tourist resorts	GB/T 26358-2010
11	Specification for facilities and services for tourist passenger cars	GB/T 26359-2010
12	Technical specification for the construction of tourism e-commerce website	GB/T 26360-2010
13	Classification of facilities and services in tourist restaurants	GB/T 26361-2010

14	Code for construction and operation of national ecotourism demonstration area	GB/T 26362-2010
15	Identification of national folk culture Tourism demonstration area	GB/T 26363-2010
16	Quality requirements for cruise ship service	GB/T 26365-2010
17	Basic terminology for tourism	GB/T 16766-2017
18	Amusement park (Farm) quality of service	GB/T 16767-2010
19	Guidelines for tour guide services	GB/T 15971-2010
20	Specification for digital application of tourist scenic spots	GB/T 30225-2013
21	Division and evaluation of Star of inland River tourist ship	GB/T 15731-2015
22	Division and evaluation of travel Agency grade	GB/T 31380-2015
23	Classification and evaluation of Urban Tourism distribution center	GB/T 31381-2015
24	Setting principles and requirements of public information guidance system for urban tourism	GB/T 31382-2015
25	The establishment and service specification of tourist scenic Spot visitor center	GB/T 31383-2015
26	Specification for setting up public information guidance system in tourist scenic spots	GB/T 31384-2015
27	General principles of Travel Agency service	GB/T 31385-2015
28	Code for outbound tourism services of travel agencies	GB/T 31386-2015
29	Division and evaluation of quality grade of tourist toilet	GB/T 18973-2016
30	General specification for travel agency products	GB/T 32942-2016
31	Travel Agency Service Network Service requirements	GB/T 32943-2016
32	Classification and evaluation of tour guides	GB/T 34313-2017

NOTE : GB/T refers to recommended national standards

**Table2**

List of existing relevant national standards in the tourism industry

NUMBER	Standard name	Standard number
1	Public information graphical symbols-part 1th: Universal symbols	GB/T 10001.1—2012
2	Logo with public information graphic symbol part 2nd: tourism Leisure symbols;	GB/T 10001.2—2006
3	Setting principles and requirements of public information Guidance system part 8th: Hotels and restaurants	GB/T 15566.8—2007
4	Safety specification for burning incense in places of religious activities and places of tourism	GB 26529—2011

NOTE : GB refers to mandatory national standards

**Table3**

List of existing industry standards in the tourism industry

NUMBER	Standard name	Standard number
1	Graphic symbols of public information for tourist hotels	LB/T 001—1995
2	Service quality of tourist automobile	LB/T 002—1995
3	Star hotel room Guest supplies quality and equipment requirements	LB/T 003—1996
4	Standard for visits to star hotels	LB/T 006—2006
5	Code for inbound tourism services for travel agencies	LB/T 009-2011
6	Explanation of service specification for tourist scenic spots	LB/T 014-2011
7	Green Tourist Attractions	LB/T 015-2011
8	Classification and evaluation of service quality in hot spring enterprises	LB/T 016-2011
9	Code for tourism services at international cruise ports	LB/T 017-2011
10	Guidelines on energy saving and emission reduction in tourist hotels	LB/T 018-2011
11	Code for domestic tourism services of travel agencies	LB/T 004-2013 (Replacing LB/T 004 —1997)
12	Classification and description of tourist destination information	LB/T 019-2013
13	Hotel Intelligent Construction and service guide	LB/T 020-2013
14	Guide to information Service for tourism enterprises	LB/T 021-2013
15	Basic requirements of urban tourism public service	LB/T 022-2013
16	Guide to standard system for tourism enterprises	LB/T 023-2013

17	Service quality requirement of tourist characteristic block	LB/T 024-2013
18	Landscape tourism roads and requirements for recreational service facilities	LB/T 025-2013
19	Guide to standardization of tourism enterprises	LB/T 026-2013
20	Evaluation Guide for the implementation of standards in tourism enterprises	LB/T 027-2013
21	Travel agency Safety Specification	LB/T 028-2013
22	Travel agency Products Third party network trading platform operation and service requirements	LB/T 030-2014
23	Code for Practice of hotel students in tourism majors	LB/T 031-2014
24	Practice specification for travel agency students majoring in tourism	LB/T 032-2014
25	Code for practice of scenic spots for students majoring in tourism	LB/T 033-2014
26	Guidelines for the approval of maximum load carrying capacity in scenic spots	LB/T 034-2014
27	Specification for Green Road tourism facilities and services	LB/T 035-2014
28	Specification for bicycle ride-hailing travel services	LB/T 036-2014
29	Quality grade division of tourist Ski resort	LB/T 037-2014
30	Code for construction and management of national business Tourism demonstration Area	LB/T 038-2014
31	Guide Leader Guides civilized tourism specification	LB/T 039-2015
32	Description of service specification before travel agency line	LB/T 040-2015
33	Guidelines for the implementation and evaluation of tourism development planning	LB/T 041-2015
34	National Hot spring Tourist famous town	LB/T 042-2015
35	Golf Management Service Specification	LB/T 043-2015
36	Code for self-driving management services	LB/T 044-2015
37	Code for tourism Performing arts services and management	LB/T 045-2015

38	Specification for quality of hot spring tourism services	LB/T 046-2015
39	Tourism & Leisure Demonstration City	LB/T 047-2015
40	Green Tourist Hotel	LB/T 007-2015(Replacing LB/T 007-2006)
41	National Green Tourism Demonstration base	LB/T 048-2016
42	National Blue Tourism Demonstration base	LB/T 049-2016
43	National Humanities Tourism Demonstration Base	LB/T 050-2016
44	National Kang-Foster tourism demonstration base	LB/T 051-2016
45	Code for tourism services for the elderly in travel agencies	LB/T 052-2016
46	Code for service reception services for young people in Hong Kong and Macao	LB/T 053-2016
47	Code for research Travel Services	LB/T 054-2016
48	Code of service for Red Tourist classic scenic spots	LB/T 055-2016
49	Basic information specification for tourism e-commerce enterprises	LB/T 056-2016
50	Basic specification for tourism e-commerce tourism products and services	LB/T 057-2016
51	Basic information specification of electronic contract for tourism electronic commerce	LB/T 058-2016
52	Code for operation and service of conference-servicing institutions	LB/T 059-2016
53	Specification for Urban tourism service centres	LB/T 060-2017
54	Self-driving destination infrastructure & Public service guide	LB/T 061-2017
55	Description and requirements of basic information on online trading of tourism products	LB/T 062-2017
56	Code for handling complaints by tour operators	LB/T 063-2017
57	Basic requirements and evaluation of cultural theme tourist hotel	LB/T 064-2017
58	Basic requirements and evaluation of tourist homestay	LB/T 065-2017
59	Boutique tourist Hotel	LB/T 066-2017
60	Specification and evaluation of national industrial tourism demonstration base	LB/T 067-2017



61	Specification for the peak hours of scenic visitors	LB/T 068-2017
62	Code for online operation and service of travel agencies	LB/T 069-2017
63	Hot Spring Tourism Spring quality classification	LB/T 070-2017

NOTE : LB/T refers to the recommended standard of tourism industry

**Table4**

Standards of National Leisure Standardization Technical Committee

NUMBER	Standard number	Standard name
1	GB/T 28101-2011	Basic terminology of urban public leisure service and management
2	GB/T 28102-2011	Guidelines for urban public leisure services and management
3	GB/T 28003-2011	Code of service quality in urban Central leisure area
4	GB/T 28927-2012	Standard for service quality of holiday community
5	GB/T 28928-2012	Guidelines for the quality of Community leisure services
6	GB/T 28929-2012	Standard for service quality of Leisure Farm
7	GB/T 31171-2014	Classification and requirement of urban public leisure space
8	GB/T 31172-2014	Guidelines for the integration of urban and rural leisure services
9	GB/T 31173-2014	Guidance of national Leisure education
10	GB/T 31174-2014	Investigation and evaluation of national leisure satisfaction
11	GB/T 31175-2014	Basic terminology of Leisure
12	GB/T 31176-2014	Code for leisure Consulting services
13	GB/T 31710.1-2015	Construction and Service specification for leisure Campgrounds part 1th: guidelines
14	GB/T 31710.2-2015	Construction and Service specification for leisure Camping ground part 2nd: self-driving campgrounds
15	GB/T31710.3-2015	Guidelines for the construction and service of leisure campgrounds-Part 3rd: Tent Campgrounds
16	GB/T 31710.4-2015	Code for construction and service of leisure campgrounds Part 4: Youth Camps
17	GB/T 32941.1-2016	Reality Performance Service Specification part 1th: guidelines

18	GB/T 32941.2-2016	Reality Performance Service Specification Part 2nd: Performance management
19	GB/T 32941.3-2016	Reality Performance Service Specification Part 3rd: Quality of Service
20	GB/T 34409-2017	Standard for service quality of leisure main functional area
21	GB/T 35614-2017	Specification for leisure services in marine rangelands
22	GB/Z 32339-2015	General requirements for Creative agricultural Parks 20130462-T-424 2016-7-1
23	GB/Z 32450-2015	Guide to multifunctional development and construction of characteristic agriculture 20130468-T-424

NOTE : GB/Z is a national standardized technical guidance document, but also a national guiding standard

#### 4.2. Government management institutions and functions of Chinese tourism industry

China and Thailand have different social systems and development paths. Until 1979 years, China has begun to reform and opening up .The tourism industry in China has increased dramatically and has grown in importance both economically and culturally (Pratt, S,2015,p.303) . Chinese highest tourism management agency is the Ministry of Culture and Tourism.Chinese provincial governments, the county government have set up tourist offices to plan and guide the local tourism industry which has a greater voice in the local tourism industry.

### **5 The trend, difference and existing problems of tourism standardization between China and Thailand**

With the increasing globalization of the tourism economy, tourism industry in Thailand and China has become increasingly global.By the end of 2017, Thailand had received 35 million international visitors, which was equivalent to more than half of Thailand's population. Similarly, China received 29 million international visitors in 2017. Under the tide of globalization, tourism standardization in China and Thailand has also become more open and internationalized.

The tourism Standards of China and Thailand are compiled and revised under the auspices of the Government, which has a strong authority.Chinese tourism standardization focuses on monitoring the tourism industry, macro-management, market governance;Thailand's tourism standardization aims to control and guide investment, to create a good investment and business environment and establish a tourism standard system. Standardizing tourism products can attract quality tourists, also improve the level of tourism services in Thailand and enhance the competitiveness of Thailand's tourism industry in the World tourism market (Chaisawat, M,2006,P.4) .

Promotion of Thailand tourism Standards is excellent.Its' standards are mainly focused on: destination, accommodation, tourism activities, tourism services, tourism practitioners, public toilets and other fields; Chinese tourism standards are divided into recommended national standards and recommended industry standards, so the main role of standards is to assist in the

implementation of tourism policies and regulations. The standards are mainly focused on: Travel agencies, hotels, tourism public services, tourism education, scenic spots, tourism new business way. Compared to Thailand, Chinese tourism standards are more concerned about new business, closely following the development trend of the industry. Thailand has a relatively high degree of internationalization of tourism standards, and some standards directly use international standards, such as public toilet facilities for tourism. Chinese tourism standards are less internationalized, all standards are independently compiled in China. All in all, there is a major difference between China and Thailand in the standardization of tourism:

Chinese standard system which developed rapidly is sound and the standard quantity is numerous. Thailand's tourism standards focus on tourism enterprises and areas in urgent need of standardization. As far as individual standards are concerned, some Thai standards are more practical from content to structure, making them easy to use as evaluation criteria for tourism enterprises, and usually including a number of details on services, such as Souvenir shop (general merchandise) service standards, Souvenir Shop (gemstone products) service standards, etc.

Now, the standardization of tourism in both China and Thailand has made some achievements, but there are also some problems:

1) Tourism standardization is led by the Government and does not fully take into account the vital interests of stakeholders, especially tourists.

2) The two countries are not sufficiently strong in the promotion of tourism standards. Therefore, in view of the current tourism standards in Thailand and China, market penetration and market recognition need to be improved.

3) Southeast Asia destinations in Thailand, Malaysia, and Singapore are usually arranged into single package tours for Mainland Chinese tourists. China is Thailand's largest source of tourists, with a large number of visitors to Thai every year. Thailand is perceived to be the riskiest of all those countries ( Weifeng, T, 2005, pp.97-111). The cooperation between the two countries in the field of tourism standards is insufficient, especially Thailand's tourism safety management standards for Chinese tourists, which is not conducive to the sustainable development of Thai tourism in the Chinese market.

4) The international influence of tourism standards is not strong.

## **6. Conclusions and recommendations**

Exploring and establishing the cooperation mode and operation mechanism between China and Thailand in the field of tourism standardization is the core of this paper.

Thailand and China have good cooperation in tourism, but the tourism standardization in Thailand and China is different. In order to provide better service for the tourists of the two countries, Thailand and China must cooperate closely in the field of standardization. According to the current development of tourism industry in Thailand, Thailand needs to establish the corresponding ship safety standards and certification system, speeding up the qualification and star evaluation of local resources, and cooperating with China to establish Chinese market access standards for Thai tourism products.

Secondly, the standard construction work of the two countries should be in line with international standards, and introduce international standard content in terms of terminology, content and writing methods.

Thirdly, the two countries can involve relevant stakeholders from all parties in the market, such as the establishment, formulation and audit of tourism standards. The products, services and management standards of some mature professional fields should be gradually opened to the market, encouraging all parties in the market to actively participate in the formulation of standards.

Finally, China is the largest economy in Asia and the one that is most successful in pressing its claim to bring its population to a level of wealth and income comparable with those of the advanced countries (Mathews, J. A, Tan, H, & Hu, M-C, 2018, p. 158) and Thailand is the seat of the United Nations Headquarters in Asia. The two countries should be based on the strategic positioning of the tourism market, giving full play to their own advantages, and constantly improving the standardized industrial chain, improving the degree of marketization of tourism standards, while strengthening the development of standards of promotion and publicity. Ultimately both two countries form the Asian effectiveness and influence of Tourism standard brand.

Due to the difference of cultural and political system, the collection of tourism standards in Thailand is not comprehensive. This paper is mainly through a single comparative study method to compare the existing data, lacking of a whole layout, so the persuasion is weaker. In the future research, I will introduce a variety of research methods to combining of the core of Chinese and Thai tourism standards, to find the logic of standard formulation for the two countries.

## References

- Batra, A. (2008). Foreign Tourists' Perception Towards Personal Safety And Potential Crime While Visiting Bangkok. *Anatolia: An International Journal of Tourism & Hospitality Research*, Vol(19), 89–101.
- Beirman, D. (2018). Thailand's approach to destination resilience: an historical perspective of tourism resilience from 2002 to 2018. *Tourism Review International*, Vol( 22), 277–292.
- Thailand Tourism Report. (2018) Vol(3), 1–31.
- Chaisawat, M. (2006). Policy and planning of tourism product development in Thailand: A proposed model. *Asia Pacific Journal of Tourism Research*, Vol(11), 1–16.
- Ling-yun Zhang, Li-rong Zhu. (2011). A comparative study of the development Situation and trend about tourism standardization between China and foreign countries [J]. *Tourism Tribune*, Vol (26), 12–21.
- Bin-Yu, Jia Wei-Li. (2016). On the method of comparative study [J]. *Journal of Hebei Economic and Trade University*, Vol (37), 23.
- Mo Jia-lin, Wei Yan-ju. (2018). Overview of Standardization in Thailand [J]. *Standard Science*, Vol(06), 18–22.
- Mathews, J.A, Tan, H, & Hu, M-C (2018). Moving to a circular economy in China: Transforming industrial parks into eco-industrial parks. *California Management Review*, Vol(60), 157–181.
- Narangajavana, Y, & Hu, B. (2008). The Relationship Between the Hotel Rating System, Service Quality Improvement, and Hotel Performance Changes: A Canonical Analysis of Hotels in Thailand. *Journal of Quality Assurance in Hospitality & Tourism*, Vol(9), 34–56.
- Pratt, S. (2015). Potential economic contribution of regional tourism development in China: A comparative analysis. *International Journal of Tourism Research*, Vol(17), 303–312.
- Weifeng, T. (2005). Risks perceived by Mainland Chinese tourists towards Southeast Asia destinations: A fuzzy logic model. *Asia Pacific Journal of Tourism Research*, Vol(10), 97–115.

# TEACHERS' MOTIVATION AND QUALITY EDUCATION REPRESENT THE KEY FOR THE CHANGE IN CAMBODIA

**Riccardo Corrado<sup>1</sup> and Patchanee Tungjan<sup>2</sup>**

Department of Management of Information Systems<sup>1</sup>

Paragon International University

Phnom Penh, 12151, Cambodia

Email: [rcorrado@paragoniu.edu.kh](mailto:rcorrado@paragoniu.edu.kh)

Department of Occupational Therapy<sup>2</sup>

Chiang Mai University

Chiang Mai, 50200, Thailand

Email: [patchanee\\_tungjan@cmu.ac.th](mailto:patchanee_tungjan@cmu.ac.th)

## Abstract

Cambodia is one of the fastest developing countries in Asia but still, its education system is lagging behind its neighboring countries. Over the past few years, the Ministry of Education has taken some steps toward addressing a few of the major problems, but because of a lack of policies, inadequate expenditures, and low teacher salaries, with consequent low motivation, Cambodia still remains behind. Until these major problems are addressed, the kingdom will keep walking on a dangerously high cliff between success and failure, missing the opportunity to improve education and provide a strong foundation for its growth, dramatically falling short of its target to become a developed country by 2050, as set forth by Prime Minister Hun Sen.

## Key Words

Cambodia, Teachers, Motivation, Salaries, Quality Education

## Introduction: Education in Cambodia

Cambodia is a relatively small country with a very sad recent history. The Khmer Rouge, led by Pol Pot, in their attempt to socially engineer a classless communist society, killed almost two million people and annihilated the intellectual elite of Cambodia. Phnom Penh, the nation's capital and once considered the pearl of Asia, became a shadow of itself. However, over the last decades, millions of dollars from donors have poured into the country and through foreigner investments, Cambodia has achieved the enviable result of having a steadily growing Gross Domestic Product (GDP) for almost two decades.

These results led Cambodia to be categorized as the sixth-fastest growing economy in the world by the World Bank. But, while Cambodia has been able to survive its horrific recent past and flourish economically, in some sectors it is still deeply suffering from the consequences of the shattering effects of its sad past. One of the most relevant aftermaths of the Khmer Rouge period is the nation's failing educational system. Cambodia is still spending only 2.6 percent of its GDP on education and many schools, mainly in the provinces, lack resources, both human and technological ones (Corrado, Flinn, & Tungjan, 2019) resulting in an educational system that is far behind its ASEAN neighbors. Furthermore, at present, Cambodia fails to focus on Science, Technology, Engineering and Mathematics (STEM), which is the result of a previous focus limited to administrative skills, which were introduced by the French during the Colonial Period (Kalyanpur 2011). At the dawn of the Fourth Industrial Revolution (4IR) this lack of technological savviness and preparation will ultimately affect the future and the competitiveness of the country in the international market.

In Cambodia, the educational system is run by the state, with the presence of the Minister of Education, Youth, and Sport (MoEYS). Private education exists at all levels, from kindergartens to higher education institutions and are run by private sectors. Private higher education is present, mainly in the capital of the country, Phnom Penh, with more than forty higher education institutions (HEIs), between public and private ones, a few of which are also available throughout the provinces of Cambodia. The Cambodian education system is divided mainly into two parts, which are basic education and upper secondary. Many research works have "pointed to poorly equipped graduates produced by Cambodian higher education institutions" and "even the qualified minority do not always possess the professional and core employability skills demanded in the job market" (CDRI, 2015). Other issues within Cambodian higher education include weak governance, lack of entrepreneurship education, lack of government investment and lack of academic preparedness of high school graduates (CDRI, 2015).

The problems at the tertiary education level are rooted in the poor quality of the primary and secondary school programs. At the primary level, only 4 percent of the school teachers hold a bachelor's degree and while some small steps have been taken by the MoEYS to increase teacher qualifications, much more effort is needed. This lack of quality education and prepared teachers are the consequences of years under the domination of the Khmer Rouge. During those dramatic times, almost two million people were killed and the intellectual elite of Cambodia was decimated. Teachers were no longer representing the intellectual elite and soon held little status in society (Kalyanpur, 2011). This effect is still visible today and proven by the dramatically low teacher salaries. This lack of importance given to education is experienced also through the dramatically high dropout rates. Primary school dropout rates during the academic years 2011-2014 averaged more than 10 percent through all the provinces in Cambodia (CDRI, 2015). In 2014, Cambodia spent only 1.9 percent of its GDP on education, which corresponded to 9.1 percent of the total government expenditure, compared to a more than doubled percentage for its neighbors in Thailand and Vietnam, who respectively spent 19.1 and 18.5 percent of their total expenditures (The World Bank, n.d.). In 2015, almost 2 million Cambodians fifteen years or older were found to be illiterate, with 67 percent of them being female (The World Bank, n.d.). Throughout the country, almost four thousand schools have facilities with floors and walls in very poor condition (MoEYS, 2017). Additionally, more than one hundred schools in Cambodia are hosted in bamboo constructions (MoEYS, 2017). More than half of the schools in the country

do not have running water and almost forty percent have no toilets (MoEYS, 2017). The completion rate is less than 82 percent for primary school, less than 42 percent for secondary, and lower than 17 percent for upper secondary school. These numbers show how dramatic the situation is within the country. Even if Cambodia has one of the fastest growing economies over the past decade, the education system has been left behind, in favor of foreigner investments, mainly from China. “In five straight years, from 2013 to 2017, China was Cambodia’s largest foreign direct investor, with investment capital of \$5.3 billion, or about \$1 billion annually and in 2016 China surpassed Cambodia itself to become the largest source of investment capital in the Kingdom” (Kimsay, 2018). Many Cambodian accumulated and are going to accumulate fortunes, “yet focusing only on the growing distance between Cambodia’s elites and the remainder of the population conceals a far more widespread process of social differentiation” (Parsons, 2017).

But what can Cambodia do to improve education? What are the issues that Cambodia has to address and try to tackle in order to fill the gap that keeps Cambodia behind its neighboring countries like Vietnam or Thailand? The process must begin by focusing on preparing teachers and creating a new elite of educators capable to prepare the new Cambodian generations for the challenges that Prime Minister Hun Sen wants them to face in the next decade.

### **Research Objectives**

In this paper, we wanted to investigate the importance of teachers’ motivation for providing quality education, tailoring the discussion specifically to the Cambodian reality. We investigated the situation of the Cambodian education system and the scenario in which the Cambodian teachers find themselves. This paper represents the foundation for an in-depth framework that aims to understand what the Cambodian government should do to address the problems in the educational system, collecting feedback directly from those that work every day delivering a learning experience (the teachers) to the new Cambodian generations.

### **Research Methodology**

This paper is based on literature research. We accessed information from a variety of literature, based on journal articles, global reports, newspapers, and national policies. We created a clear description of the Cambodian educational scenario, connecting the motivational problems of Cambodian teachers, with the motivational theories present in the literature. The relevance of the literature chosen is based on: purpose, reliability, and effectiveness. In this research, reports, journal articles, and national news from reliable sources were included.

### **Teachers’ Motivation: Conceptual Framework**

Motivation is a driving force that makes people want to put forth their best in whatever they do (Saleem, Mahmood, & Mahmood, 2010). Teacher motivation has been widely researched and considered as an effective tool for school success through a student’s engagement in learning. This has been researched using various motivational theories and each of them was found to motivate teachers at school (Sambonin & Liu, 2017).

Everything starts with the decision of someone to begin her career as a teacher, and motivation is surely a deciding factor in choosing this career. Regarding this, three motivations have been identified as a reason for becoming a teacher: “intrinsic motivations” which reflect a personal interest and desire to be a teacher, “social motivations” which reflects service oriented personal goals to serve others and the community and finally, “extrinsic motivations” which reflect motivations that are based on the desire of a secure job and reliable income (Lauermann, Karabenick, Carpenter, & Kuusinen, 2017). Researchers commonly use three remarkable motivational theories to guide their investigations of teacher’s motivational perceptions, namely Maslow’s Hierarchy of Needs theory, Herzberg’s Motivation-Hygiene theory and Self-Determination theory (Sambonin & Liu, 2017).

The research seems clear, factors such as recognition, advancement, growth, work conditions, salary, status, and competence are fundamental to keep a person’s motivation high, and more specifically, that of a teacher. It has been proved that “low teacher motivation can affect the quality of candidates entering the profession” and “it can also contribute to a reduced focus on the teaching and learning process as evidenced by minimal time spent preparing lessons or supporting struggling learners” (UNESCO, 2018). On top of this, teachers with low motivation may repeatedly arrive late or not even show up for class, with absenteeism being reported as high as 25 percent in some countries (UNESCO, 2018). This is quite a common problem in Cambodia (Ratana, 2015). Universities in the country are absolutely reluctant to hire full-time instructors, who find themselves trying to collect as many part-time positions in higher education institutions in the area where they work. This results in having lecturers with an overwhelming workload, little time, energy, and motivation to prepare lessons and focus on their teaching activities. Cambodian students are hostages of this system of non-compliance, incapability, and inadequacy. During primary and secondary school, the majority of students experience a form of “forced shadow education”. Teachers purposely don’t cover topics during normal classes, so the students are required to take overtime lessons in exchange for fees (UNDP Cambodia, 2015). Teachers follow this highly unethical practice because they haven’t enough money to survive. For students lucky enough to reach the university level, they face a scenario where the majority of the lecturers are professionals focused on increasing their load of teaching (and thus salary), instead of focusing on their job and helping students. The approach “student-centered learning” sadly becomes “how to survive”. Self-imposed responsibilities and beliefs of what a teacher should do, represent a strong commitment for teachers in doing a good job. But this must come along with security for teachers as well, as suggested by the Maslow’s Hierarchy of needs, where safety comes before esteem and self-actualization.

Furthermore, recalling the Herzberg’s Motivator factors, important elements for supporting the motivation of an instructor are achievement, recognition, advancement, and growth. Lauermann et al. (2017), a study in the US, found that teacher’s responsibility, self-efficacy, and intrinsic and social utility motivations for teaching are positively correlated with interest in professional development, personal time investment, and commitment to teaching as a career. It is clear that motivation is key to encourage teacher candidates to begin the career of a teacher first, and for then delivering a good and effective learning experience to the pupils. Teachers are professionals that want to improve constantly in order to provide a better experience to their pupils and at the same time, advance in their career. Growth is not only important for the motivation of teachers, but it is also a fundamental element to assure constant improvement, which is one of the important factors for achieving a high-quality education.



In regards to this, the United Nations' Sustainable Development Goals have been introduced to serve as a benchmark for every nation to ensure global prosperity, protection of the planet, and the eradication of poverty. Among its seventeen goals, one cites quality education and sets as its the target to “ensure inclusive and quality education for all and promote lifelong learning” (United Nations, 2017). Quality education is supported by three pillars: ensuring access to quality teachers, providing use of quality learning tools, and professional development (Education International, n.d.). With the new millennium, many societies have become engaged in the creation of new policies to improve education, and one of their main focus points has been placed on the professional development of teachers (Villegas-Reimers, 2003). Unfortunately, Cambodia has not yet instituted effective professional development policies or programs for its teachers (Berkvens, Kalyanpur, Kuiper, & Van den Akker, 2012). Professional development is important not only because it promotes recognition for the teachers' work as professionals, but also because, as with many other fields, there are continuous opportunities for growth, learning and improving. Professional development is clearly lacking in Cambodia and it has only been considered an issue in the last few years. The expenditure of Cambodia on education is still too low and this lack of funding forbids Cambodia from making any real improvements to its education sector. Regarding this, Massive Open Online Courses (MOOCs) could be a great opportunity to provide ongoing professional development to teachers, and as Misra (2018) has already suggested, most educational departments or ministries could use MOOCs for professional development because of their relative low cost. Professional development is absolutely necessary in Cambodia, where the preparation of teachers, mainly in the provinces, is very poor (Sem & Hem, 2016), affecting the learning experience and quality of education of young Cambodians. In 2017, less than 20 thousand teachers in Cambodia (a nation with a population of 16 million) were found to be university graduates (non-teaching degrees), 50 thousand with only a high school diploma, and around 20 thousands with only a secondary or even primary school diploma (Corrado et al., 2019). The lack of teacher preparation together with low teacher salaries, collectively represent the reason why the quality of education within the country is dramatically low.

If MOOCs represent an opportunity that can help and support professional development, it is also true that they heavily rely on motivation and self-regulation in order for participants to be able to complete them. Many types of research and statistics have proven that low motivation is clearly the main factor for the low completion rate of MOOCs. Even if the number of available MOOCs have grown dramatically in the last few years, user growth has not, and de facto, each course is attracting fewer and fewer users (CLASS CENTRAL, 2019). Self-determination and motivation are the Volta's keys to explaining the low completion rate. Motivation is again a fundamental factor for supporting professional development for teachers. Once more, low salaries, high workload, and little or no teacher support undermine any possibility of growth for the education sector in the country.

People who are motivated to achieve are much more concerned with their own personal success than the awards they could receive (Singh, 2011). “Poorly functioning educational delivery systems, poor working conditions, a lack of resources, limited human capacity, weak accountability, low salaries, and poor management” (Kirk, Dembélé, & Baxter, 2013), represent the major factors that affect teacher motivation. Motivation is also an important element in every activity and profession, and as we have seen thus far, it represents a fundamental element for the career of a teacher, from the early stage of choosing the teaching profession to the lifelong commitment to this noble job.

## Salary and Motivation

There is a relationship between adequate compensation and motivation, and the low performance of employees is the consequential effect of inadequate compensation and motivation on the organizational development (Sule, Amuni, Obasan, & Banjo, 2015).

In Cambodia, still today, teachers are underpaid and undertrained. An important concept of psychological thinking is equity. This theory claims that people seek a balance between their inputs and the reward outcomes. If the reward is too small in comparison to the effort required, an individual will minimize increasing inputs, and vice versa (Reilly, 2003). For example, the average teacher in the US makes about \$56,000 per year (Reid, 2016). In Cambodia, the minimum wage for teachers is \$230. Flanagan and Grissmer (2006) analyzed the correlation between salaries of teachers and the performance of students, collecting data for around 10 years from around 800 schools in several districts across the state of Illinois, USA. They concluded that there are measurable effects on student performance and that the level of student success is directly attributable to an individual school's overall academic performance, including the size of the district, the salary of the instructor and typology of students. Britton and Propper (2016) found that "a larger gap between regulated pay and the outside labor market remuneration reduces school performance as measured by student performance in key exams". Increased teacher salaries can introduce several benefits, like reducing teacher turnover and a likely improvement in students' performance through a higher level of educational experience from teachers (Hendricks, 2014). An ideal pay structure would, therefore, allow differential wages in each region to equalize supply and demand (Britton & Propper, 2016). In fact, "when applied to the real world complex skill of improving instruction, motivational strategies that rely heavily on gains such as merit pay or punishments such as dismissal may actually be working against the goal of improving teacher performance" (Baird, 2017). Several international organizations have affirmed that "when salaries are too low, teachers often need to take on additional work [...] which can reduce their commitment to their regular teaching jobs and lead to absenteeism," or "Low pay is likely to be one of the main reasons why teachers perform poorly, have low morale and tend to be poorly qualified." (Evans, 2018).

Furthermore, low salaries fail to attract qualified candidates to the education field, which often results in having the least skilled teachers instead of the most qualified ones in the hiring pool. Do teachers with higher academic scores add more value to the classroom? Most of the studies that have looked at the relationship between teacher test scores and student achievement have found a positive association between teachers with high academic scores and added value in the classroom (Leigh, 2012) and "the relationship between [...] pay and teacher aptitude is positive and significant". "While within-country studies tend to find that salaries are not a good measure of differences in teacher effectiveness", the "cross country studies that are available have found salary levels to be often positively related to country differences in students' outcome" (Hanushek, Piopiunik, & Wiederhold, 2018). Furthermore, in a country like Cambodia, where there is a need for educational policies and reform, the motivation of teachers is fundamental to support effective implementation of new possible policies. In fact, motivated teachers are more likely to follow and implement educational reforms and at the same time more likely to continue the profession and be present in class (Jesus & Conboy, 2001). Based on a study of 190,000 students in 28 Organizations for Economic Co-operation and Development (OECD) countries, the data provided descriptive evidence on the association between the use of salary adjustments for teacher performance at the national level and student achievement on an internationally

comparable test, like the Programme for International Student Assessment (PISA) test (Woessmann, 2011).

The connection between teachers' motivation and students' achievement have been widely researched, and studies that regress measures of student outcomes on teacher wages produced a weak result (Loeb and Page 2000). Money plays an important role in the motivation of employees, however, its effect on continuous employee's performance is debatable (Nemashakwe & Shumba, 2015). Thus, increasing salaries for teachers it is not a panacea but it represents a first decisive step in the right direction in order to attract experts and professionals capable to raise the educational standards within the country. Along with this, another fundamental step is represented by the introduction of standards and teacher's preparation programs, capable to provide the teachers the necessary skills for offering to their students a quality education, driven by nationwide policies.

### **Quality Education and Standards**

The fourth goal of the United Nations' Sustainable Development document is focused on quality education. From the points of view of families and students, quality education requires adaptability to local conditions, relevance to local needs and flexibility in addressing present cultural obstacles (Chimombo, 2005). Quality education also represents a shared target for all the ASEAN countries. If in the Philippines we find the motto, "the State shall protect and promote the right of all citizens to quality education at all levels and shall take appropriate steps to make such education available to all", Myanmar has the target to "Build a Modern Development Nation through Education" (SEAMEO, 2004). Malaysia's mission regarding education is to develop a world-class quality education system which will realize the full potential of the individual and fulfill the aspiration of the Malaysian nation. Similar policy can be found in Lao PDR and Cambodia (SEAMEO, 2004). Also in Thailand, "quality education improvement has become the ultimate goal in the provision of education in Thailand in addition to maintenance of equity and social justice" (SEAMEO, 2004).

Even if this represents a shared target for the ASEAN countries, Cambodia is still lacking in quality education, and this is refraining the country from growing strong. In the several last years the GDP of the country steadily improved and even the capital city, Phnom Penh, completely changed compared to only ten years ago, to the point of becoming almost unrecognizable. But the education sector is still evolving so slowly, that even with the country's economic growth the net result is a weak foundation for the kingdom which is subject to increasing inequalities throughout its society. Education is the key to reducing these inequalities (UNESCO, 1981). And a good education is the fundamental element necessary to ensure inclusive and equitable quality education and promote lifelong learning opportunities for everyone, which is the very description of quality education itself in the United Nations' Sustainable Development document. In Cambodia "competition for tuition fees and the quest for profit have lowered the quality of undergraduate education" - "leading to poor quality graduates who are unable to find work in their field or confined to low-wage jobs" (CDRI, 2015). "There is clearly much work to be done across the higher education subsector to achieve the country's ambition of creating a knowledge economy" (CDRI, 2015). Quality education, as highlighted by the United Nations' Sustainable Development document, can help to reduce these inequalities. There is substantial evidence to show that "cognitive skills resulting from both schools and other factors such as families and

health, explain substantial portions of individual income differences across countries and are key to understanding differences in national growth rates” (Hanushek, 2019). Cambodia is one of the countries where there is still the misconception that teaching can represent the last option for graduates who need work or do not perform well on national exams, or for those not good enough to find a better job. The profession of teaching instead is considered as a prestigious profession in other high-performing nations, such as South Korea or Taiwan “due at least in part to the high standards for entrance into teaching” (UNESCO, 2018). In Cambodia, it is still common to find schools with no chairs or tables, stationary or running water, mostly in the provinces. And we know that the teaching environment represents a fundamental element in order to assure quality education. With regard to the teaching environment, researchers have consistently reported that image and tradition (Alves & Raposo, 2007), as well as the availability of adequate facilities, classrooms and resources at postsecondary institutions (Malik et al., 2010; Sakthivel, Rajendran, & Raju, 2005) significantly contribute to overall student satisfaction. Motivation is fundamental for teachers and for students, and the latter ones, appreciate lecturers that are expert in their subject, that are flexible in delivery of the subject and sympathetic with their needs for success, and also lecturers that are easy to be with and help them to learn (Hill, Lomas, & MacGregor, 2013). Students appreciate being surrounded by a positive environment that supports learning and a curriculum that is drafted around their world but at the same time one that is capable to broaden their horizons (Hill et al., 2013). We are still far from this in Cambodia. Hanushek et al (2018), found substantial differences in teacher cognitive skills across countries that are strongly related to student performance. University programs for preparing the teachers of the future are required in Cambodia. Currently, there are few programs for training teachers, like for example the Cambodia Teacher Training Project (CTTP), which is a teacher training center located in Kandal province, where young Cambodian high school graduates study at CTTP for two years to become public school teachers across the country. The MoEYS created a teacher program with the primary objective to “ensure an effective supply of teachers for all education levels so as to respond to the education system expansion” (MoEYS, n.d.). The second objective of the program is to “ensure that the number of new intakes” of candidates and “the subsequent deployment of new teachers should favorably respond to the growing demand for teachers in rural/remote and disadvantaged areas through the recruitment and training of teacher trainees from these targeted areas as well as from the areas inhabited by ethnic minority people” (MoEYS, n.d.). Finally, the third and last goal is to “improve the quality of teaching through the expansion of in-service teacher training” (MoEYS, n.d.). Furthermore, MoEYS has responded to the outcomes expected in the National Strategic Development Plan (NSDP) 2014–2018 by drafting the Education Strategic Plan (ESP) 2014–2018. This document has a clear focus on “the expansion of early childhood education, aiming to expand access to quality secondary and post-secondary education and non-formal education, technical and vocational education” (ODC, 2018). It introduces policies focused on ensuring equitable access, assuring everyone access to education services, enhancing the quality and relevance of learning, and for ensuring effective leadership and management of education staff at all levels (MoEYS, 2014). For tackling the problem of low qualified primary teachers, for example, the program sets an entry requirement for primary teacher candidates of twelve years of basic education and two additional years of pedagogical training. In the provinces though, this request is lower, setting the requirement to only 9 years of basic education plus two years of pedagogical training (CDRI, 2015). Even if somehow this can be understandable, there is the risk that Cambodia may still maintain a difference in quality

education between urban centers and provinces. Furthermore, in January 2016 the Cambodian government launched its first nation-wide policy for child development, to be overseen by the Cambodia National Council for Children, with the aim to reduce the student dropout rates and increase vocational training opportunities. This proves that the MoEYS is moving in the right direction but there is an evident lack of connection between real policies and implementation of them, and a clear investigation should be made for understanding if these policies have been implemented (CDRI, 2015). For example, a document regarding quality education in higher education began to circulate between Cambodian universities after 2010, and was then proposed again in a new format but with exactly the same contents in 2018. This shows a clear lack of applications of the few policies that already exist. “The bureaucratically inflexible governance of higher education institutions has left the subsector fragmented and poorly regulated” (CDRI, 2015). In addition, the majority of universities in Cambodia offer curricula more similar to vocational training rather than an academic one. This scenario may prepare young Cambodian students for the short term, but will leave them with “depreciated skills when the economy grows rapidly and will thus imply increased inequality” (Hanushek, 2019).

Cambodia could learn from the actions and mistakes of China, which is already deeply involved in the economy of the Khmer Kingdom. In fact, China’s rigorous examination-oriented education has been widely criticized and educational reforms have been implemented in an attempt to broaden educational aims to focus on “developing well-rounded individuals rather than only memorization and examination scores” (Dello-Iacovo, 2009), following the examples of leading Asian nations such as Singapore, Japan or South Korea. A wide variety of educational issues in China have been addressed with policies promoting the so-called *esuzhi jiaoyu*, which attempted to introduce nine years compulsory education, moral education, curriculum reforms, physical and aesthetic education, childhood education and inclusion for children with disabilities (Dello-Iacovo, 2009). Students’ workload and the importance of exams were reduced and the traditional rote learning examination-oriented teaching methodology left space for more modern pedagogical methodologies (Dello-Iacovo, 2009). The motto *Zhongxue wei ti; xixue wei yong* (Chinese learning for fundamental principles; Western learning for use) that was created in the 1860s to strengthen China while retaining China’s “superior” civilization, it was recalled for adoption with the goal of learning directly from the capitalist West (Dello-Iacovo, 2009). The absence of control and direction though, made ineffective these guidelines in many areas of China, resulting in differences and inequalities between various areas of the country (Dello-Iacovo, 2009).

Another example can be taken from neighboring Thailand. In 1999 Thailand passed the ambitious National Education Act (NEA) which set new educational goals and “sought both to legitimate and stimulate the reform of teaching and learning methods, school management systems, and the legal framework of education” in the country (Hallinger & Lee, 2011). Ten years after the creation of the NEA, observers have clearly linked social unrest in Thailand during 2010 to a perception among some segments of Thai society of unequal access to quality education (Hallinger & Lee, 2011). In particular, the authors noted possible inadequacies in training and development needed to support the acquisition of new skills and attitudes related to reforms in teaching and learning, together with over-expectations during the introduction of the law in 1999.

Cambodia needs to take an example from its neighbors to avoid the same mistakes. While Singapore or Japan are way too advanced in their educational system to be models for Cambodia currently, they must be seen and considered as a target. Economic growth cannot set aside the growth of the educational system, which must begin with well trained and adequately paid teachers. The absence of qualified teachers will lead to failure, so it cannot be emphasized enough, the process for improving the education system within the country must start with the introduction of serious and controlled programs for training professional teachers, together with a drastic rise in teacher salaries, which can attract the best candidates. “The art of teaching is developmental in nature, and a solid induction program ensures the professional growth of new teachers along the learning-to-teach continuum” (CTA, 2012). Within-country evidence has highlighted the importance of teacher quality for student achievement with the most convincing evidence coming from value-added analysis (Hanushek et al., 2018). Countries like China and Thailand introduced a serious and effective plan for improving education in their countries way before Cambodia. However, this can be an advantage for learning from their successes and their mistakes. But until the Kingdom of Cambodia implements a nationwide plan for training teachers, from kindergarten, step by step up to high school, together with a plan for continuous professional development and increased salaries, Cambodia will find itself at an impasse. Cambodia needs to create a nationwide educational foundation capable of supporting economic growth, without relying solely on foreign investments, both money and human resources. Teaching someone “is not a matter of getting him to commit results to mind; rather, it is to teach him to participate in the process that makes possible the establishment of knowledge” (Bruner, 1966). And Cambodia needs to start this process by teaching to the new Cambodian generation “how to teach” and lend support to this process in order to reach a better future.

### **Discussion and Future Work**

For the past few years, Cambodia has dramatically recovered from the destruction caused by the Khmer Rouge and has managed to maintain a steadily growing GDP for almost two decades. However, while Cambodia is one of the fastest economies in Asia and in the world, this growth is undermined by some inadequacies and mistakes which are seriously threatening the future of Cambodia. It is well recognized that education plays the most important role in the social development of a nation and Cambodia is still failing to address its educational shortcomings. Some timid steps have been taken toward improvement, but lack of funds for the education, the shortage of quality teachers and of programs to seriously prepare them, and a very weak implementation of the policies that have been already created, are affecting the growth of the country, and fostering an always increasing inequality within Cambodian society. Cambodia is focusing on the investments of foreign countries, China mainly, and forgetting about what should be done in order to build a strong foundation for a secure future, in favor of very quick growth with weak foundations. Education represents a pillar for strong growth that can assure equality and opportunity for future generations, and not only for economic elites. The first step to be taken must be to recognize the importance of talented teachers and support them in their work. Cambodia needs to spend more in the education system, providing better facilities and increasing the salaries of teachers; thereby increasing their motivation as well. Professional development must support teachers all over the country, giving each of them the opportunity to grow and provide a better learning experience for their students. If the kingdom will not take firm steps in

these directions, it may continue growing economically, but without a strong foundation built on a quality education sector, it will continue heading toward inescapable failure.

As future work, we will explore the motivation of teachers in Cambodia, using a specifically tailored survey, focused on the higher education institutions, in order to better understand, in the Cambodian scenario, which factors contribute to the lack of motivation in lecturers and professors. This project will represent the foundations for creating a framework for a proposal to the Cambodian policymakers for improving the educational system, and at the same time, the management of one of the most important resources for a country: qualified educators.

## References

Baird, T. B. (2017). *The Debate Over teacher Evaluation - Are We Asking the Right Question?*

Retrieved from <http://www.eusd.net/wp-content/uploads/2017/08/The-Debate-Over-Teacher-Evaluation.pdf>

Berkvens, J. B. Y., Kalyanpur, M., Kuiper, W., & Van den Akker, J. (2012). Improving adult learning and professional development in a post-conflict area: The case of Cambodia.

*International Journal of Educational Development*, 32(2), 241–251.

<https://doi.org/10.1016/j.ijedudev.2011.03.008>

Britton, J., & Propper, C. (2016). Teacher pay and school productivity: Exploiting wage regulation. *Journal of Public Economics*, 133, 75–89.

<https://doi.org/10.1016/j.jpubeco.2015.12.004>

Bruner, J. S. (1966). *Toward a theory of instruction*. Harvard University Press.

CDRI. (2015). *Cambodia Education 2015 - Employment and Empowerment* (K. Sothy, S.

Madhur, & C. Rethy, Eds.). Phnom Penh, Cambodia: Cambodia Development Resource Institute (CDRI).

Chimombo, J. P. G. (2005). Quantity Versus Quality in Education: Case Studies in Malawi.

*International Review of Education*, 51(2), 155–172. <https://doi.org/10.1007/s11159-005-1842-8>

CLASS CENTRAL. (2019, January 7). Year of MOOC-based Degrees: A Review of MOOC

Stats and Trends in 2018 — Class Central. Retrieved January 12, 2019, from Class Central's MOOC Report website: <https://www.class-central.com/report/moocs-stats-and-trends-2018/>

Corrado, R., Flinn, R. E., & Tungjan, P. (2019). Can ICT Help Cambodian Students Become the Solution for Improving Education in the Country? *Journal of Management,*

*Economics, and Industrial Organization*, 3(2), 1–15.

<https://doi.org/10.31039/jomeino.2019.3.2.1>

CTA. (2012). *Teacher Evaluation Framework*. Retrieved from

<https://www.cta.org/~media/Documents/Issues%20%20Action/Teacher%20Quality/Tea>

- cher%20Evaluation%20Framework%204-23-15%20Final%20for%20website%20File.pdf
- Dello-Iacovo, B. (2009). Curriculum reform and ‘Quality Education’ in China: An overview. *International Journal of Educational Development*, 29(3), 241–249.  
<https://doi.org/10.1016/j.ijedudev.2008.02.008>
- Education International. (n.d.). The three pillars of education [Education International (EI) Website]. Retrieved February 24, 2019, from Unite4Education website:  
<https://www.unite4education.org/about/what-is-quality-education/the-three-pillars-of-quality-education/>
- Evans, D. (2018, January 17). What do we learn from increasing teacher salaries in Indonesia? More than the students did. [Text]. Retrieved February 20, 2019, from Impact Evaluations website: <https://blogs.worldbank.org/impac-tevaluations/what-do-we-learn-increasing-teacher-salaries-indonesia-more-students-did>
- Flanagan, A., & Grissmer, D. W. (2006). *Effect of Teacher Pay on Student Performance: Findings from Illinois*. RAND EDUCATION.
- Hallinger, P., & Lee, M. (2011). A decade of education reform in Thailand: broken promise or impossible dream? *Cambridge Journal of Education*, 41(2), 139–158.  
<https://doi.org/10.1080/0305764X.2011.572868>
- Hanushek, E. A. (2019). Education and the Growth-Equity Trade-off. *Education, Skills and Technical Change: Implications for Future U.S. GDP Growth*, 293–312.
- Hanushek, E. A., Piopiunik, M., & Wiederhold, S. (2018). The Value of Smarter Teachers: International Evidence on Teacher Cognitive Skills and Student Performance. *Journal of Human Resources*, 81.
- Hendricks, M. D. (2014). Does it pay to pay teachers more? Evidence from Texas. *Journal of Public Economics*, 109, 50–63. <https://doi.org/10.1016/j.jpubeco.2013.11.001>
- Hill, Y., Lomas, L., & MacGregor, J. (2013). Students’ perceptions of quality in higher education. *Quality Assurance in Education*.  
<https://doi.org/10.1108/09684880310462047>
- Jesus, S. N. de, & Conboy, J. (2001). A stress management course to prevent teacher distress. *International Journal of Educational Management*, 15(3), 131–137.  
<https://doi.org/10.1108/09513540110384484>
- Kalyanpur, M. (2011). Paradigm and Paradox: Education for All and the Inclusion of Children with Disabilities in Cambodia. *International Journal of Inclusive Education*, 15(10), 1053–1071. <https://doi.org/10.1080/13603116.2011.555069>



- Kimsay, H. (2018, March 7). Investment in Cambodia nearly doubles in 2017. *Phnom Penh Post*. Retrieved from <https://www.phnompenhpost.com/business/investment-cambodia-nearly-doubles-2017>
- Kirk, J., Dembélé, M., & Baxter, S. (2013). *More and Better Teachers of Quality Education for All - Identity and Motivation, Systems and Support*. Retrieved from [https://moreandbetterteachers.files.wordpress.com/2013/09/more-and-better-teaching\\_september-2013.pdf](https://moreandbetterteachers.files.wordpress.com/2013/09/more-and-better-teaching_september-2013.pdf)
- Lauermann, F., Karabenick, S. A., Carpenter, R., & Kuusinen, C. (2017). Teacher Motivation and Professional Commitment in the United States - The Role of Motivations for Teaching, Teacher Self-Efficacy and Sense of Professional Responsibility. In *Current Perspectives in Social and Behavioral Sciences. Global Perspectives on Teacher Motivation*. Cambridge, UK: Cambridge University Press.
- Leigh, A. (2012). Teacher pay and teacher aptitude. *Economics of Education Review*, 31(3), 41–53. <https://doi.org/10.1016/j.econedurev.2012.02.001>
- Loeb, S., & Page, M. E. (2006). Examining the Link between Teacher Wages and Student Outcomes: The Importance of Alternative Labor Market Opportunities and Non-Pecuniary Variation. *The MIT Press Journal*, 82(3). Retrieved from <https://www.mitpressjournals.org/doi/10.1162/003465300558894>
- Misra, P. K. (2018). MOOCs for Teacher Professional Development: Reflections and Suggested Actions. *Open Praxis*, 10(1), 67. <https://doi.org/10.5944/openpraxis.10.1.780>
- MoEYS. (2014). *Education Strategic Plan 2014-2018*. Retrieved from <http://www.moeys.gov.kh/en/policies-and-strategies/559.html>
- MoEYS. (2017). Education Statistics and Indicators 2016-2017 [Ministry Official Website]. Retrieved February 26, 2019, from Ministry of Education, Youth and Sport website: <http://www.moeys.gov.kh/en/emis/2461.html>
- MoEYS. (n.d.). Teacher Training [Minister of Education, Youth and Sport, Cambodia]. Retrieved February 25, 2019, from <http://www.moeys.gov.kh/en/teacher-training.html>
- Nemashakwe, P., & Shumba, V. (2015). Motivating Employees in a Poor Performing Company. *International Journal of Economics, Commerce and Management*, III(7), 15.
- ODC. (2018). Education and training. Retrieved February 25, 2019, from Open Development Cambodia (ODC) website: <https://opendevdevelopmentcambodia.net/topics/education-and-training/>
- Parsons, L. (2017, August 23). A look beyond income reveals a dark future for Cambodian inequality. *Phnom Penh Post*. Retrieved from

- <https://www.phnompenhpost.com/opinion/look-beyond-income-reveals-dark-future-cambodian-inequality>
- Ratana, U. (2015, January 20). Salary cut off for absenteeism. *Phnom Penh Post*. Retrieved from <https://www.phnompenhpost.com/national/salary-cut-absenteeism>
- Reid, D. (2016). Can Increasing Teacher Pay Improve Teacher Quality? [Michigan State University Website]. Retrieved February 20, 2019, from MSU.edu website: <https://edwp.educ.msu.edu/green-and-write/2016/can-increasing-teacher-pay-improve-teacher-quality/>
- Reilly, P. (2003). *The link between pay and performance* (HR Network Paper No. MP18; p. 10). Institute for Employment Studies.
- Saleem, R., Mahmood, A., & Mahmood, A. (2010). Effect of Work Motivation on Job Satisfaction in Mobile Telecommunication Service Organizations of Pakistan. *International Journal of Business and Management*, 5(11), p213. <https://doi.org/10.5539/ijbm.v5n11p213>
- Sambonin, K., & Liu, P. (2017). *Understanding Teacher Motivation in Cambodia: a case study*. <https://doi.org/10.13140/RG.2.2.13755.52008>
- SEAMEO. (2004). Challenges in Education in Southeast Asia. Retrieved February 19, 2019, from Challenges in Education in Southeast Asia website: <http://www.seameo.org/vl/library/dlwelcome/publications/paper/india04.htm>
- Sem, R., & Hem, K. (2016). *Education Reform in Cambodia: progress and Challenges in Basic Education* [Regional Research Paper]. Retrieved from Parliamentary Institute of Cambodia website: [https://www.pic.org.kh/images/2017Research/20170523%20Education\\_Reform\\_Cambodia\\_Eng.pdf](https://www.pic.org.kh/images/2017Research/20170523%20Education_Reform_Cambodia_Eng.pdf)
- Singh, K. (2011). Study of Achievement Motivation in Relation to Academic Achievement of Students. *International Journal of Educational Planning & Administration*, 1(2), 11.
- Sule, O. E., Amuni, S. I., Obasan, K. A., & Banjo, H. A. (2015). Wages and salaries as a motivational tool for enhancing organizational performance. a survey of selected Nigerian workplace. *EuroEconomica*, 34(1). Retrieved from <http://journals.univ-danubius.ro/index.php/euroeconomica/article/view/2466>
- The World Bank. (n.d.). Education Statistics | Home. Retrieved February 26, 2019, from Education Statistics (EdStats) website: <http://datatopics.worldbank.org/education/>
- UNDP Cambodia. (2015). *Curbing Private Tutoring and Informal Fee in Cambodia Basic Education* (p. 44) [Background Paper for Cambodia Human Development Report 2015]. Retrieved from UNDP website:

- <http://www.kh.undp.org/content/dam/cambodia/docs/PovRed/Curbing%20Private%20Tutoring%20and%20Informal%20Fee%20in%20Cambodia%20Basic%20Education.pdf>
- UNESCO. (1981). *Planning education for reducing inequalities: an IIEP seminar*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000075631>
- UNESCO. (2018). Teacher motivation and incentives. Retrieved February 19, 2019, from Learning Portal website: <https://learningportal.iiep.unesco.org/en/issue-briefs/improve-learning/teachers-and-pedagogy/teacher-motivation-and-incentives>
- United Nations. (2017, June 28). ‘Inclusive, equitable and quality education’ at the heart of high-level UN event. Retrieved February 24, 2019, from United Nations Sustainable Development website: <https://www.un.org/sustainabledevelopment/blog/2017/06/inclusive-equitable-and-quality-education-at-the-heart-of-high-level-un-event/>
- Villegas-Reimers, E. (2003). *Teacher professional development: an international review of the literature*. Retrieved from <https://www.teachersity.org/files/PDF/UNESCO%20-%20Teacher%20Professional%20Development.pdf>
- Woessmann, L. (2011). Cross-country evidence on teacher performance pay. *Economics of Education Review*, 30(3), 404–418. <https://doi.org/10.1016/j.econedurev.2010.12.008>

# The Effect of Source of Information on Student Expectation in Higher Education Service

Chartaya Nilplub<sup>1</sup> Atcharawan Thaodon<sup>2</sup> Pranee Sakullikareatesima<sup>3</sup> and Sukanda Klinkhajon<sup>4</sup>

Faculty of Business Administration  
Rajamangala University of Technology Isan  
Nakhonratchasima 30000, Thailand  
Email: [chartaya@rmuti.ac.th](mailto:chartaya@rmuti.ac.th)<sup>1</sup>  
Email: [job\\_atcharawan@yahoo.com](mailto:job_atcharawan@yahoo.com)<sup>2</sup>  
Email: [tom\\_pranee@hotmail.com](mailto:tom_pranee@hotmail.com)<sup>3</sup>  
Email: [ow.sukanda@gmail.com](mailto:ow.sukanda@gmail.com)<sup>4</sup>

## Abstract

In the increasing competition in higher education, meeting student expectation is a desirable phenomenon. Using a structural model, this study examines the roles of various sources of information as the antecedents of student expectation on higher education service. Empirical results based on a representative sample of 434 undergraduate students in Thailand reveal that personal needs, word of mouth and price significantly affect student expectation. The implications of these results suggest that university marketing communication team should keep in mind that investment on other drivers is unlikely to manipulate student expectation. They should focus more heavily on building personal connections with student's family members and friends as they are the key influencer.

**Keywords:** Expectation; Source of information; Higher education; Thailand

## 1. Introduction

The higher education section has become a global business and universities must continuously explore options for exporting higher education services. These changes affect how higher education institutions operate. They are the driving forces for the marketization of higher education (Maringe, 2006). For instance, the privatization of higher education and cost sharing through the introduction of tuition fees in many European countries have increased the need to consider students' expectations (Voss, Gruber, & Szmigin, 2007). In addition, higher competition at institutional, national and international level requires new operating modes through the adoption of more market-oriented and business-like forms of operation within higher education institutions (Sizer, 2001).

Quality management is crucial to the sustainability of education in higher education, especially, in globalization which is a vital challenge to business education. In both developed and developing countries, quality assurance in education is an important issue as many educational institutions have failed to provide services up to the expectation of their students (Ilyas, Nasir, Hussain, Malik, Munir, & Sarwar, 2013). Past research shows that students who ultimately withdraw from higher education, their decision usually can be traced to the first few weeks of enrolment and the expectations they possessed (Yorke & Knight, 2000). This significant phenomenon that links expectation to service quality is the disconfirmation paradigm. This paradigm suggests that prior to interaction, consumers for expectations about ensuring product/service experiences (Churchill & Surprenant, 1982; Oliver & DeSarbo, 1988; Tse & Wilton, 1988; Halstead, Hartman, & Schmidt, 1994). Once formed, these expectations constitute

standards against which actual performance is compared. Any discrepancy between the two produces a mental state termed disconfirmation (Oliver, 1976). Some evidence indicated that there were negative gaps in service quality perceptions between students and lecturers (Mosahab et al., 2008). Hence, in the education sector where no true products are involved; service provided will represent the competitive differentiation between universities in terms of their superiority in creating educational experiences (Khodayari & Khodayari, 2011). It is confirmed by previous research that information source is the key antecedent of expectation. New technologies and media forms necessitate proper market segmentation and of higher education have been taking place all over the world. Information that shows the prospective consumer, or in this case student, how the service will be delivered to them are likely to enhance the differentiation of the service offering and may also assist the student's understanding and evaluation of the service (Day, 1992).

There is sometimes a significant difference between the students' expectations and the experience that institutions are prepared to offer. This may arise because students have unrealistic expectations of what will transpire during their time at university; it may also arise because of misunderstandings associated with the information provided by the institution about its culture or because the institution is simply unaware of the students' expectations. University teachers and service providers may make erroneous assumptions about students' needs, as universities tend to provide information to students based on the institutions' expectations, not those of the student (Pithers & Holland, 2006).

## 2. Research Objectives

The goal of this study is to empirically test which of these information sources of information i.e. past experience, personal needs, word of mouth, advertising, and price are most influential on university student's service quality expectations of educational services. To fill in the gap of the past research, a model that includes the five important sources of information adapted from Zeithaml, Berry, and Parasuraman (1993) as predictors of expectation. A mixed sample of university students in four campuses of Rajamangala University of Technology Isan located in North eastern part of Thailand were used to test the model. The following hypotheses were made in accordance with the model in Figure 1.

H: Past experience, personal needs, word of mouth, advertising, and price directly affect university student expectation of educational services.

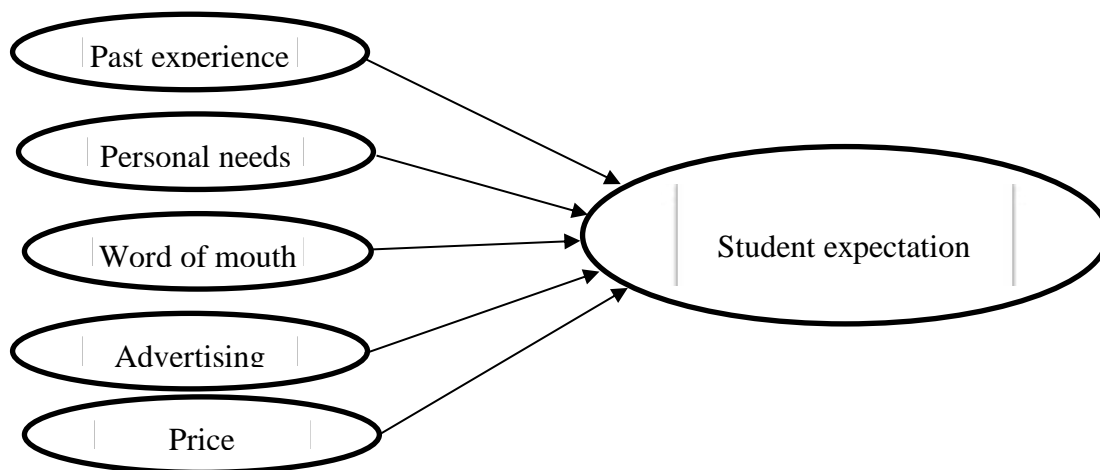


Figure 1: Theoretical model

### **3. Literature Review**

#### **3.1. Expectation**

Based on the service quality gap model, they defined service quality as a function of the gap between customer expectation of service and their perceptions of the actual service delivered by an organization. Service quality is defined as a customer's general impression or attitude toward services they receive (Bitner, Bernard, & Tetreault, 1990). The most popular tool for measuring service quality is SERVQUAL (Parasuraman, Zeithaml, & Berry, 1988). SERVQUAL scale has provided helpful insight regarding the dimension of service quality. It showed that service quality could be measured by the differences between expected and actual service delivery. They consolidated the ten variables proposed in 1985 to five broad dimensions which are Tangible (appearance of physical elements); Reliability (dependable, accurate performance); Responsibility (promptness and helpfulness); Assurance (competence, courtesy, credibility, and security); Empathy (easy access, good communication, and customer understanding).

#### **3.2 Source of information**

In order to manage expectations, it is important to evaluate the influence of key antecedents such as information sources. Zeithaml et al. (1993), consumers' levels of expectations are dependent upon four main antecedents. These antecedents are explicit service promises (advertising, personal selling, contracts, and other communications), implicit service promise (tangibles, price), word of mouth (personal, expert) and past experience. According to Beales, Michael, Steven, & Richard (1981) describe two general categories of search for information about product quality: external search and internal search. External search includes product information acquired through outside sources; the information can be acquired.

#### **3.3 Relationship between Source of Information and Service quality**

Research has determined that various forms of information play a role in determining expectation (Prugsamatz, Pentecost & Ofstad, 2006). Potential customers have a myriad of information sources available when investigating their service provider. Sources of information are varied and, therefore, likely to comprise both organic (self-experience or non-commercial sources) and induced (advertiser message derived components) (Tasci & Gartner, 2007). Past research by Johnston (2010) has cited information sources such as brochures, friends, family and personal experience as being highly ranked by university students. Similarly, Prugsamatz, Pentecost, and Ofstad (2006) has provided evidence that the three most influential sources of information on Asian students expectations of universities are: past experiences, advertising and word of mouth. The findings suggest that the information the student is exposed to; the higher the desired and predicted expectations of the university's service quality.

#### **3.4 Rajamangala University of Technology Isan**

Rajamangala University of Technology Isan was established depending on Rajamangala University of Technology Act 2005 among the nine Rajamangala University of Technology. Rajamangala University of Technology Isan (RMUTI) focuses on developing occupations and technology with purposes of promoting academic and professions emphasizing practice, research, producing industrial technical education instructors, giving academic services in science and technology, maintaining arts and culture, and providing opportunities for students who finish vocational education to continue their study at degree levels. RMUTI comprises four campuses scattered around the Northeast of Thailand i.e. Nakhonratchasima, Surin Campus, Khon Kaen Campus, Sakon Nakhon Campus (Rajamangala University of Technology Isan, 2019).

### **4. Research Methodology**

#### **4.1 Data Collection**

Once the questionnaire was developed based on review of literature, an expert panel consisting of two academics and a student are used to evaluate its content validity. A pilot study was also performed to identify ambiguous items, and assessed the reliability of the scales. Stratified random sampling was applied to ensure that the sample reflected, to the extent possible, the demographic profile of the population of students in each campus of Rajamangala University of Technology Isan (RMUTI). Four hundred and forty-three questionnaires were collected among first-year students in four campuses of RMUTI (Nakhonratchasima, Khon Kean, Surin, and Sakon Nakhon) in 2017.

#### 4.2 Analytical Procedure

Following an analysis of respondent characteristics, a two-step approach to structural equation modeling (SEM), as suggested by Anderson and Gerbing (1988) are used. In the first step, a confirmatory factor analysis (CFA) is performed to check and improve the reliability, convergent validity, and discriminant validity of the measurement items using composite reliability, average variance extracted (AVE), fit indices (CFI, GFI, and RMSEA) and the chi-square test (Bagozzi & Yi, 1988). In the second step, the initial structural model is estimated with all hypothesized relationships. Then the improved model is estimated to test the hypothesized relationships in the full model

### 5. Results

#### 5.1 Demographic Profile of Respondents

Table 1 summarizes the basic socio-demographic characteristics of the sample which are first year students. The sample's characteristics show that the sample is generally distributed among groups. From Table 1, around 55% of the respondents were male while 45% were female. The percentage of students on four campuses is in accordance with the proportion of students in RMUTI. It could be concluded that these demographic statistics such as gender, campus, and faculty were balanced, consisting of various groups of students, thus reducing the possible bias of the sample.

Table 1 Socio-demographic characteristics of the sample

	<b>Characteristics</b>	<b>Respondents (N = 434)</b>	<b>Percentage</b>
<b>Gender</b>	Male	240	55.3
	Female	194	44.7
<b>Campus</b>	Nakhonratchasima	179	41.2
	Khon Kean	127	29.3
	Sakon Nakhon	70	16.1
	Surin	58	13.4
<b>Faculty</b>	Engineering and Architecture <sup>1</sup>	79	18.2
	Business Administration <sup>1</sup>	50	11.5
	Science and Liberal Arts <sup>1</sup>	31	7.1
	Fine Arts and Industrial Design <sup>1</sup>	19	4.4
	Industry and Technology <sup>2</sup>	40	9.2
	Business Administration and Information Technology <sup>2</sup>	56	12.9
	Industrial Education <sup>2</sup>	31	7.1

Table 1 Socio-demographic characteristics of the sample (Cont.)

	<b>Characteristics</b>	<b>Respondents (N = 434)</b>	<b>Percentage</b>
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<b>Faculty</b>	Management Technology <sup>3</sup>	30	6.9
	Agriculture and Technology <sup>3</sup>	28	6.5
	Industry and Technology <sup>4</sup>	52	12
	Natural Resource <sup>4</sup>	18	4.2

Note: 1=Nakhonratchasima; 2 = Khon Kean campus; 3= Surin campus; 4= Sakon Nakhon campus

### 5.2 Measurement Validation

During CFA analysis, it is reported that all of the composite reliability values are above the recommended level of 0.60 (Bagozzi & Yi, 1988). The items loaded onto their assigned factors is ranging from 0.32-0.90. Observed variable Ad4 and Ad5 do not meet the criteria. Hence, the items with low factor loading were removed. AVE values ranging from 0.65-0.73 which are met the stipulated criterion of 0.5 (Bagozzi & Yi, 1988; Hair, Black, Babin, Anderson & Tatham, 2006).

In this study, the Goodness-of-fit Index (GFI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and Chi-square test were reported to indicate the degree to which the measurement model fit the data as suggested by Hair et al. (2006). Acceptable fit for the GFI and CFI require values over 0.9, while acceptable fit for the RMSEA requires a value lower than 0.1 (Hair et al., 2006; Kline, 1988). The fit indices of the initial model were not satisfactory, as GFI, CFI, and RMSEA do not meet the criterion ( $\chi^2/df = 3.62$ ;  $p = 0.00$ ; GFI = 0.86; CFI = 0.89; RMSEA = 0.08). Saris, Satorra, and Sorbom (1987) suggested that the model could be significantly improved by permitting the errors to correlate between items. In improving the fit of the measurement model, modification indices suggested that the model fit could be improved by correlating items e10 and e11 in Personal need. As these two items are in the same construct, intuitive sense indicates that the two items are associated. In a similar vein, it was considered appropriate to re-estimate the model with the error covariance between other items specified as free parameters as shown in the modified measurement model. These steps proved beneficial, as the final measurement model was shown to have an acceptable fit to the data ( $\chi^2/df = 0.064$ ;  $p = 0.00$ ; GFI = 0.90; CFI = 0.93; RMSEA = 0.064).



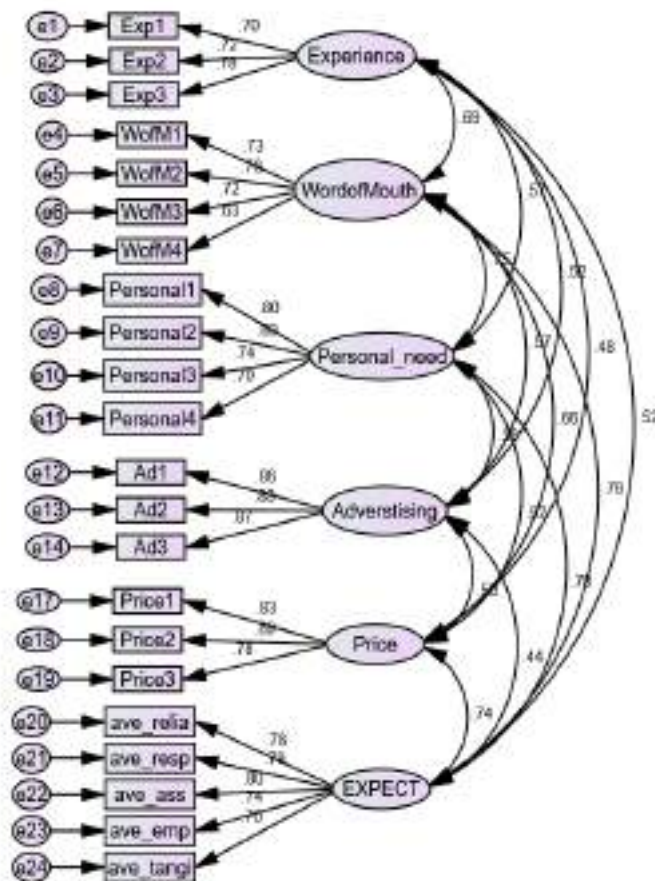


Figure 2: Initial measurement model

### 5.3 Structural Model

After validating the measurement model, the  $\chi^2$  value, GFI, CFI, and RMSEA were used to evaluate the fit of the structural equation model (see Table 3). The structural model demonstrated an acceptable fit to the data regarding the GFI and CFI indices (both were above the recommended level of 0.90). Its  $\chi^2 / df$  is lower than the recommended level of 3. In addition, its RMSEA was beneath the acceptable level of 0.1 (Hair et al., 2006; Kline, 1988). The squared multiple correlation coefficients (SCM) indicated that 78% of the variance in expectation could be explained by these source of information. Given these results, it is judged the structural model to be fit to the data.

Table 2: Structural model fit statistics

Fit index	Criteria	Statistics	Results
$\chi^2 / df$	< 3 (Hair et al., 2006)	2.388	Acceptable
GFI	> 0.90 (Hu & Bentler, 2006)	0.911	Acceptable
CFI	> 0.90 (Hair et al., 2006)	0.951	Acceptable
RMSEA	<0.1 (Hair et al., 2006)	0.057	Acceptable

$R^2 = 0.78$

### 5.4 Results of Hypothesis Tests

The results of the analysis illustrate that source of information can predict student expectation. Of these five hypothesized antecedents, only three sources i.e. word of mouth, personal needs

and price are significantly predicted expectation. Past experience and advertising do not exert significant effect on student expectation. Among these three significant sources, personal needs exerted the strongest effect ( $\beta = 0.436$ ) followed by price ( $\beta = 0.385$ ) and word of mouth ( $\beta = 0.273$ ) respectively at the 0.01 significance level. The strengths of these relationships (as indicated by standardized path coefficients) are indicated in Figure 3. Therefore, the results provide partially support for the hypothesis.

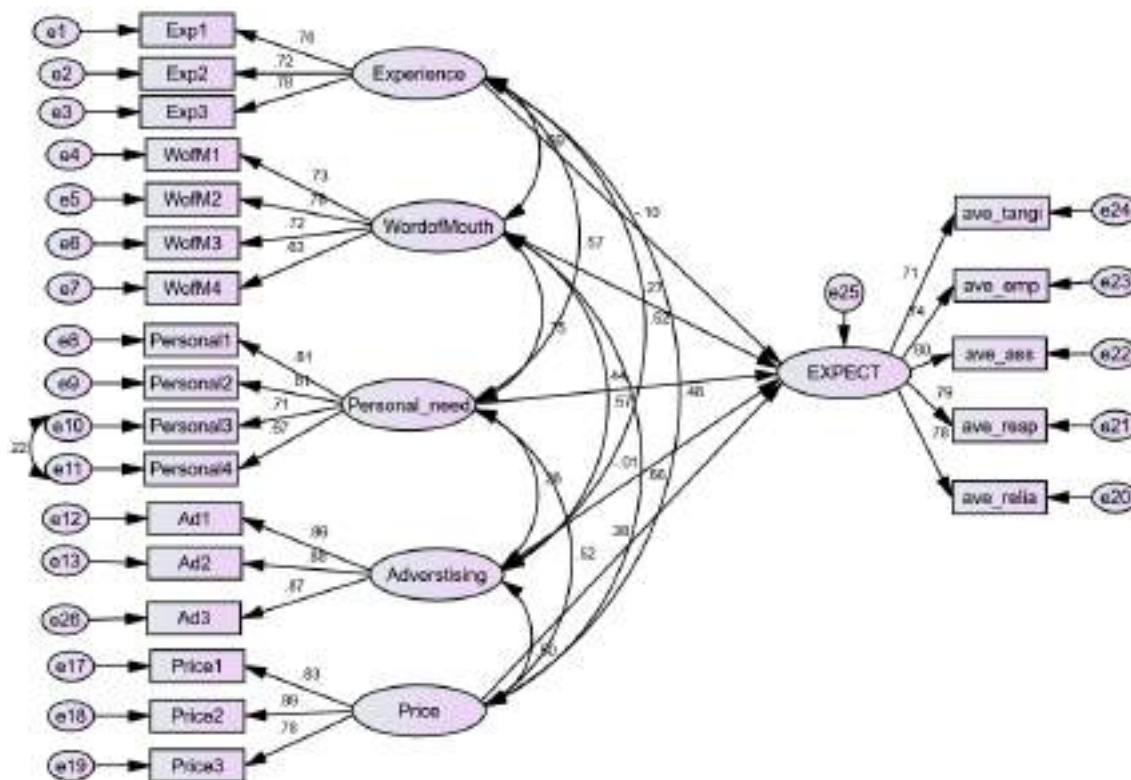


Figure 3: Structural model

## 6. Discussion

Research examining the relationship between source of information and student's expectation in Thailand are rare. The results of study shows that, in Thai higher education context, source of information has a significant effect on student expectation. It is suggesting that student expectation result from students' perception of the information they received prior to their service encounters at the university. These information are offered by a number of sources both from the students' themselves and given by the universities. Hence, proper marketing communication can manage student expectation. Table 3 indicates that personal needs has the strongest direct effect on expectation. The significant strong effect of personal needs on expectation inform university management to focus more heavily on student's personal value. This result is consistent with findings produced by Lee and Morrish (2012) who suggest that an understanding of the target audiences' cultural norms and values would be a significant advantage satisfy the expectation of student. Course advisors and student counsellors should be provided with training in cultural sensitivities of the different groups represented by the student.

The results of this study also indicate a strong effect of price on student expectation, suggesting that students' expectation of service quality in higher education are heavily contingent on their evaluations of what they received at the university, as well as the money they paid for it. This finding suggests that management of universities should also seek to improve students' perceptions of the service they receive for the money they spend at their universities. Lastly, word of mouth significantly affect student expectation. It is suggested that managing student

expectation is quite difficult for the university as the information given by university alone may not be sufficient for inducing student expectation. This strong effect of word of mouth is higher education in agreement with the results from Johnston (2010)'s study on American students which suggest that parents, along with other family and friends, were the most influential sources of information for university student.

Table 3: Structural model statistics

Hypothesized Relationship	Standardized path coefficients
Past experience → Expectation	-0.104
Word of mouth → Expectation	0.273***
Personal needs → Expectation	0.436***
Advertising → Expectation	-0.08
Price → Expectation	0.385***

\*\*\*P < 0.01

The insignificant role of advertising is in accordance with the finding of AGB (1992) that its most weakness is the perception that appears to exist among many prospective international students that higher education institutions which advertise are not of high quality. Research into the advertising of services emphasizes that marketing communication in higher education requires a different approach to more conventional products (Legg & Baker, 1987).

## 7. Conclusion

### 7.1 Conclusion and recommendation

Despite an extensive literature on the expectation, this study represents an attempt to explore the role of source of information in the formation of student expectation in Thailand higher education. The statistical results of this study extends the understanding of how university could manage student expectation. The significant strong effect of both personal needs and word of mouth in this study suggests that student expectation are difficult to manipulate by external sources. University management needs to realize that direct marketing effort by giving the information through advertising may not be effective. The results indicate that in Thai higher education internal sources of information are more important than external sources. Parents may have a role in the decision-making group that goes beyond their influence as a source of information (Johnston, 2010). These findings may have practical implications for university marketing and management in Thailand. A university should also communicate with family and friends as they are high degree of student's influencer. University representatives should maintain the personal connections with high school teachers. The analysis also provided evidence that price is a statistically significant antecedent of student expectation. This significant effect suggests that in addition to the importance of internal source of information, student expectation are based on what they received versus the money they spend in their universities. As a result, university management should attempt to influence student expectation by carefully communicate the service students will receive in return to their tuition fee. With all of these results, universities may need to conceptualize their traditional communication of information and students' expectation levels as satisfaction are predicated on a positive outcome resulting from an appropriate alignment between the initial customer expectations and the perceived quality of the performance or service delivered. Hence, student satisfaction levels are related to their expectations; when students' perceived expectations are met they have higher levels of satisfaction (Appleton-Knapp & Krentler, 2006).

## 7.2 Limitation

There are confounding variables which should be controlled for in any further surveying of student expectations of university services, this study nonetheless produced some insight into source of information as an antecedent of student expectation. Employing qualitative research approaches to explore the reason behind these statistical results may yield a further responsive approach to understand student expectation in higher education.

## 8. References

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.
- Appleton-Knapp, S. L., & Krentler, K. A. (2006). Measuring student expectations and their effects on satisfaction: The importance of managing student expectations. *Journal of marketing education*, 28(3), 254-264.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, 16(1), 74-94.
- Beales, H., Michael B. M., Steven C. S., & Richard S. (1981). Information Remedies for Consumer Protection. *American Economic Review*, 71 (May):410-413.
- Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: diagnosing favorable and unfavorable incidents. *Journal of marketing*, 54(1), 71-84.
- Churchill Jr, G. A., & Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. *Journal of marketing research*, 19(4), 491-504.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis*. Uppersaddle River.
- Halstead, D., Hartman, D., & Schmidt, S. L. (1994). Multisource effects on the satisfaction formation process. *Journal of the Academy of marketing science*, 22(2), 114-129.
- Ilyas, A., Nasir, H., Hussain, F., Malik, M. R., Munir, S., & Sarwar, Z. (2013). Evaluating business schools service quality using SERVQUAL model. *Journal of Basic Applied Science Research*, 3(5), 710-6.
- Johnston, T. C. (2010). Who and what influences choice of university? Student and university perceptions. *American Journal of Business Education*, 3(10), 15-24.
- Khodayari, F., & Khodayari, B. (2011). Service quality in higher education. *Interdisciplinary Journal of Research in Business*, 1(9), 38-46.
- Lee, C. K. C., & Morrish, S. C. (2012). Cultural values and higher education choices: Chinese families. *Australasian Marketing Journal*, 20(1), 59-64.
- Legg, D., & Baker, J. (1987). *Advertising strategies for service firms. Add value to your service*, 163-68.
- Maringe, F. (2006). University and course choice: Implications for positioning, recruitment and marketing. *International journal of educational management*, 20(6), 466-479.
- Mosahab, R.; Mahamad, O.; Ramayah, T. 2010. Service quality, customer satisfaction and loyalty: a test of mediation, *International Journal of Business and Management* 3(4): 72–80.
- Oliver, R. L. (1976). Hedonic reactions to the disconfirmation of product performance expectations: Some moderating conditions. *Journal of Applied Psychology*, 61(2), 246.
- Oliver, R. L., & DeSarbo, W. S. (1988). Response determinants in satisfaction judgments. *Journal of consumer research*, 14(4), 495-507.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual: A multiple-item scale for measuring consumer perception. *Journal of retailing*, 64(1), 12.
- Pithers, B., & Holland, T. (2006). Student Expectations and the Effect of Experience. *Australian Association for Research in Education Conference*, Adelaide, Australia.

- Prugsamatz, S., Pentecost, R., & Ofstad, L. (2006). The influence of explicit and implicit service promises on Chinese students' expectations of overseas universities. *Asia Pacific Journal of Marketing and Logistics*, 18(2), 129-145.
- Rajamangala University of Technology Isan (2019). *RMUTI History*. Retrieved from <https://www.rmuti.ac.th/2019/> (April, 10, 2019).
- Saris, W. E., Satorra, A., & Sörbom, D. (1987). The detection and correction of specification errors in structural equation models. *Sociological methodology*, 105-129.
- Sizer, J. (2001), "Research and the knowledge age", *Tertiary Education and Management*, 7 (3), 227-42.
- Tasci, A. D., & Gartner, W. C. (2007). Destination image and its functional relationships. *Journal of travel research*, 45(4), 413-425.
- Tse, D. K., & Wilton, P. C. (1988). Models of consumer satisfaction formation: An extension. *Journal of marketing research*, 25(2), 204-212.
- Voss, R., Gruber, T., & Szmigin, I. (2007). Service quality in higher education: The role of student expectations. *Journal of Business Research*, 60(9), 949-959.
- Yorke, M. & Knight, P. 2004. Self-theories: Some implications for teaching and learning in higher education. *Studies in Higher Education*, 29: 25–37.
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1993). The nature and determinants of customer expectations of service. *Journal of the academy of Marketing Science*, 21(1), 1-12.

# **A Comparative of Chinese and Thai Language's Measure Words of Animals**

**Phatsanan Sriaphiphan**

Chinese International Program  
Bangkok University  
Pathumthani 20131, Thailand  
Email: phatsanan.s@bu.ac.th

## **Abstract**

Chinese measure words for animals are one of the most complicated part in modern Chinese measure word system. Due to the different cognition of Chinese and Thai people, so the use of animal measure words in Chinese and Thai language will be different and causes difficulty for Thai students to learn Chinese as a foreign language. This paper aims to analyze the differences between Chinese and Thai language's measure words for animals by using language theories such as comparative analysis theory, interlanguage theory, as the main approach of analysis and explanation. Hopefully, this paper will be useful as a guideline for students or those who are interested in Chinese language to understand more clearly.

**Keywords:** Chinese and Thai language; measure words; comparative

## **1. Introduction**

Measure words, also known as the classifiers, are used along with numerals to define the quantity of given object. They are very important in Southeast Asian languages, especially in Chinese and Thai language. In Chinese language, the measure words for animals are divided closely, they categorize animals by using their shape and characteristic, such as head and body figure, while Thai language categorizes animals by using a word “ตัว (tuò-身)” which meaning body as a measure word for all kind of animals. The differences between the two languages can be a cause of difficulty in language learning. Consequently, this paper will explore the measure words for animals in Chinese by comparing with Thai language. The paper consists of five sections: 1) introduction, (2) research object, 3) literature review, 4) research methodology, 5) Chinese and Thai measure words for animals, 6) a comparative analysis of Chinese and Thai measure words for animals, and 7) the conclusion.

## **2. Research Objectives**

(1) To compare and analyze the differences of measure words for animals in Chinese and Thai language.

(2) To help students or those who are interested in Chinese language or those who are confused in using Chinese measure words for animals to understand more clearly as a useful guideline.

## **3. Literature Review: Background of the Study**

The following section will refer to the information about the measure words of both Chinese and Thai languages.

### 3.1) Chinese Measure Words

Chinese language does not distinguish between singular and plural as English language, it normally uses measure words along with numerals to define the quantity. In the history of the classification of measure words in Chinese, due to different standards and angles, the Chinese linguists have different views and opinions, which lead to different classification in the analysis of measure words. Zhu Dexi, Chinese linguist, grammarian and educator, classified Chinese measure words to 7 categories: 1) Individual measure words, 2) Collective measure words, 3) Mensural measure words, 4) Indefinite measure words, 5) Time measure words, 6) Quasi measure words, and 7) Verbal measure words which were subdivided to special verbal measure word, borrowed measure word, and repetitive measure word. Lü Shuxiang, Chinese distinguished linguist and founder of Modern Chinese linguistic studies, classified Chinese measure words to Lü Shuxiang, Chinese distinguished linguist 9 categories: 1) Individual measure words, 2) Collective measure words, 3) Partial measure words, 4) Container measure words, 5) Temporary measure words, 6) Mensural measure words, 7) Autonomous measure words, 8) Verbal measure words, and 9) Compound measure words. Guo Shaoyu (1938) divided measure word into 3 main categories: 1) Nominal measure words, 2) Verbal measure words, and 3) Shape-based measure words. However, Liu Yuehua (2001), suggested that Chinese measure words should be divided into nominal measure words and verbal measure words only. He, moreover, subdivided nominal measure words into special measure words and borrowed measure words. The special measure words can classify into 6 categories: 1) Individual measure words, 2) Collective measure words, 3) Mensural measure words, 4) Indefinite measure words, 5) Quasi measure words, and 6) Compound measure words. The verbal measures were divided into special verbal measure words and borrowed verbal measure words.

### 3.2) Thai Measure Words

Pei Xiaorui, a professor of the school of foreign languages, Beijing University, published *A New Grammar of Thai Language* (2001). She classified Thai measure words to nominal measure words and verbal measure words. The nominal measure words represent the unit of things, can be divided into 5 categories: 1) Individual measure words use for calculating and distinguishing individual unit of things, they are mostly named according to the traits of nouns such as เล่ม lem (use for counting the book, in Chinese use 本běn), ชุด shoot (use for a set of book, in Chinese use 册cè; use for a set of things, in Chinese use 套tào), ตัว tuo (use for counting animals, Chinese use 只zhī/条tiáo/头tóu/匹pǐ/峰fēng), ไม้ mai (use with items that come in wood stick, Chinese use 串chuàn), หยด yod (use with water drop or teardrop, Chinese use 滴dī); 2) Mensural measure words use for calculating unit of length such as เซนติเมตร sen-ti-met (means centimetre, in Chinese use 厘米 límǐ), กิโลเมตร ki-lo-met (means kilometre, in Chinese use 公里 gōnglǐ); unit of weight such as ครึ่งกิโลกรัม krueng-ki-lo-gram (means half of kilogram, in Chinese use 斤 jīn), กิโลกรัม ki-lo-gram (means kilogram, in Chinese use 公斤 gōngjīn); unit of capacity such as กรัม gram (means gram, in Chinese use 克kè), มิลลิลิตร min-li-lit (means milliliter, in Chinese use 毫克 háokè); and unit of space such as ตารางเมตร ta-rang-met (means square metre, in Chinese use 平方米 píngfāng mǐ); 3) Collective measure words use for representing a group of things such as คู่ khu (use with items that are paired, in Chinese use 对duì/双shuāng),ฝูง fuung (means crowd/group/flock/herd, normally use with animal, in Chinese use 群qún), กลุ่ม glum (mean group of people, in Chinese use 群qún/组zǔ), กอง gong (means group of things, in Chinese use 对duì/处

chù), ชนิด cha-nit (use with kind of things, in Chinese use 种); 4) Temporary measure words normally use noun as a counting unit such as ก้นข้าวสองจาน kap-khao-song-chan (จาน chan means dish, often use with food, in Chinese use 碗 wǎn), เหล้าหนึ่งขวด lao-kuad-nueng (ขวด kuad means bottle, often use with drinks and beverages, in Chinese use 瓶 píng), แก้วสามถ้วย ka-fae-sam-thuai (ถ้วย thuai means cup, use with drinks and beverages or soup, in Chinese use 杯 bēi); 5) Autonomous measure words use noun itself as a counting unit such as ตาสองตา ta-song-ta (ตา means eye, it duplicated itself as a measure word of the eye), จังหวัด 77 จังหวัด (จังหวัด means province, it duplicated itself for expressing 77 provinces), ประเทศ 12 ประเทศ (ประเทศ means country, it duplicated itself for expressing 12 countries). The verbal measure words represent the unit of action, can be divided into 2 categories: 1) Verbal measure word which describing action behavior, 2) Verbal measure word which indicating people status or something. In order to make Thai measure words easier, Praya Uppakijsilpasarn (2005) suggested in *Thai Grammar* that Thai measure words should be reclassified into 6 categories: 1) Measure words which indicating kind of things, 2) Collective measure words, 3) Shape-based measure words, 4) Mensural measure words, 5) Measure words which describing action behavior, and 6) Autonomous measure words which using noun as a counting unit.

From the above, it can be seen that the classification of measure words in Chinese and Thai language is almost the same system. However, there are still some difficulties in language learning which especially showed in the measure words for animals.

#### 4. Research Methodology

Due to the paper objectives are about comparing and analyzing differences of measure words for animals in Chinese and Thai language by referring to language theories. The main referring language theories are divided into comparative analysis theory and interlanguage theory.

##### (1) Comparative Analysis Theory

Robert Lado, an American expert on modern linguistics, published *Linguistics Across Cultures* (1957). The main contain was an introduction of comparative analysis, which was designed to help second language learners solve the problem of native language and propose effective methods and strategies for developing second language acquisition. He identified the areas of difficulty a particular foreign language will present for native speakers of another language by systematically comparing the two languages and cultures. Where the two languages and cultures are similar, learning difficulties will not be expected, where they are different, then learning difficulties are to be expected, and the greater the difference, the greater the degree of expected difficulty. Therefore, Lado referred to the influence and interference of the native language on the second language as “migration”, and believed that the commonality of the two languages is positively transferred in the second language acquisition. The similarities between first language and second language are the positive transfer which helps and fosters learning, whereas, the differences between the two languages are the negative transfer, which hinders and results in failure.

##### (2) Interlanguage Theory

Interlanguage is the process of second language acquisition which is based on the theory that there is a dormant psychological framework in the human brain that is activated when one attempts to learn a second language. The American linguist L. Selinker proposed interlanguage theory into the *International Review of Applied Linguistics* in 1972. He believed



that interlanguage is the product of some cognitive factors in the learning process, which led to the intersubjective language having different factors from the target language. The evidence of interlanguage can be found and called “fossilizations”, it occurs when certain mistakes seem to be impossible to correct in spite of the ability and motivation, learners cannot rectify and replace it with correct usage. The theory divides the main cause of fossilization to internal factors and external factors. The internal factors come from inside the individual, they imply cognitive and meta-cognitive factors as intelligence, perception, self-esteem, learning style. While the external factors imply social and affective factors such as social class, first language, and early start. (Mirhadizadeh, 2016, pp.188-189).

## 5. Chinese and Thai Measure Words for Animals

In Chinese language, the measure words which use for calculating and distinguishing individual unit of animal are “只, 条, 头, 匹, 峰”; use for animal groups are “群, 窝, 行, 对”.

**Table 1: List of Chinese Measure Words for Animals**

Measure Words for Animals (Unit)	Animals	Measure Words for Animals (Group)	Animals
只 (zhī)	一只狗 (a dog), 一只猫 (a cat), 一只猴子 (a monkey), 一只老鼠 (a rat), 一只鸡 (a chicken), 一只兔子 (a rabbit), 一只虫子 (a bug), 一只蝴蝶 (a butterfly), 一只虾 (a shrimp), 一只狼 (a fox), 一只鸟 (a bird)	群(qún)	一群熊 (a sloth of bears), 一群鸡 (a flock of chickens), 一群羊 (a flock of sheep), 一群猴子 (a troop of monkeys), 一群大象 (a herd of elephants)
条 (tiáo)	一条鱼 (a fish), 一条蛇 (a snake), 一条虫 (a worm), 一条龙 (a dragon)	窝 (wō)	一窝猫 (a litter of cats), 一窝猪 (a herd of pigs), 一窝蜜蜂 (a swarm of bees)
头 (tóu)	一头牛 (a cow), 一头羊 (a sheep), 一头猪 (a pig), 一头大象 (an elephant)	行 (háng)	一行白鹭 (a wedge of egrets)
匹 (pǐ)	一匹马 (a horse), 一匹驴 (a donkey)	对 (duì)	一对蝴蝶 (a pair of butterflies), 一对鸳鸯 (a pair of Mandarin ducks)
峰 (fēng)	一峰骆驼 (a camel)		

“只” (zhī) is the most frequently used individual measure word for animals, the above part “口” represents the mouth of human beings or animals, 2 points of below part represent animal’s legs. From Table 1, “只” (zhī) commonly uses with animals that having legs, such as一只狗 (a dog), 一只猫 (a cat), 一只猴子 (a monkey), 一只老鼠 (a rat), 一只鸡 (a chicken), 一只兔子 (a rabbit), 一只虫子 (a bug), 一只蝴蝶 (a butterfly), 一只虾 (a shrimp), 一只狼 (a fox), 一只鸟 (a bird), so we may conclude that the measure word “只” (zhī) can be used with animals which have legs regardless of size. “条” (tiáo) is usually used with animals which have

long-shaped figure such as 一条鱼 (a fish), 一条蛇 (a snake), 一条虫 (a worm), 一条龙 (a dragon). “头” (tóu) is usually used when referring to large animals with big head such as 一头牛 (a cow), 一头羊 (a sheep), 一头猪 (a pig), 一头大象 (an elephant). “匹” (pǐ) is used with odd-toed hoofed mammals like horses and donkeys, such as 一匹马 (a horse), 一匹驴 (a donkey). It has been used since ancient Chinese till now. “峰” (fēng) is only used with camels. The left part of this word “山” (shān) means mountain. The most distinctive feature of camel is the hump on its back which looks like a mountain, so it can be considered as the reason why Chinese people used “峰” (fēng) as a specific measure word for camels.

In Chinese language, the measure word which most frequently used for animal groups is “群” (qún), such as 一群熊 (a sloth of bears), 一群鸡 (a flock of chickens), 一群羊 (a flock of sheep), 一群猴子 (a troop of monkeys), 一群大象 (a herd of elephants). “对” (duì) “对” (duì) is usually used for indicating the animals that are often together such as 一对蝴蝶 (a pair of butterflies), 一对鸳鸯 (a pair of Mandarin ducks).

In Thai language, the measure words which indicate the individual unit of animal are “ตัว, เชือก, ขอน, สุนัข, ม้า, ช้าง”; indicate animal groups are “ฝูง, รัง, คอก, ไหลง, เล้า”.

**Table 2: List of Thai Measure Words for Animals**

Measure Words for Animals (Unit)	Animals	Measure Words for Animals (Group)	Animals
ตัว (tuò-身)	สุนัขหนึ่งตัว (一身狗 a dog), แมวหนึ่งตัว (一身猫 a cat), ลิงหนึ่งตัว (一身猴子 a monkey), วัวหนึ่งตัว (一身牛 a cow), ไก่ตัวหนึ่ง (一身鸡 a chicken), แมลงหนึ่งตัว (一只虫子 a bug), มังกรหนึ่งตัว (一身龙 a dragon), ปลาหนึ่งตัว (一身鱼 a fish)	ฝูง (foong-群)	สุนัขหนึ่งฝูง (一群狗 a pack of dogs), หงส์หนึ่งฝูง (一群鹅 a bevy of swans), แกะหนึ่งฝูง (一群羊 a flock of sheep), ฝูงหนึ่ง (a troop of monkeys), ปลาหนึ่งฝูง (一群鱼 a shoal of fishes)
เชือก (chiak-绳)	ช้างหนึ่งเชือก (一绳大象 an elephant)	รัง (rang-窝)	นกหนึ่งรัง (一窝鸟 a flock of birds)
ขอน (kon-圆木)	หอยสังข์หนึ่งขอน (一圆木贝壳 a conch shell)	คอก (cok-畜舍)	วัวหนึ่งคอก (一畜舍牛 a herd of cows), หมูหนึ่งคอก (一畜舍猪 a herd of pigs), ม้าหนึ่งคอก (一畜舍马 a herd of horses)
สุนัข (sunak-狗)	สุนัขหนึ่งสุนัข (一狗狗 a dog)	ไหลง (klong-兽)	ช้างหนึ่งไหลง (一兽大象 a herd of elephants)
ม้า (ma-马)	ม้าหนึ่งม้า (一马马 a horse)	เล้า (lao-栏舍)	ไก่หนึ่งเล้า (一栏舍鸡 a flock of chickens), เป็ดหนึ่งเล้า (一栏舍鸭 a flock of ducks), หมูหนึ่งเล้า (一栏舍猪 a herd of pigs)
ช้าง (chang-大象)	ช้างหนึ่งช้าง (一大象大象 an elephant)		

In Thai language, “ตัว” (tu-身) is the most frequently used individual measure words for animals, such as สุนัขหนึ่งตัว (一身狗 a dog), แมวหนึ่งตัว (一身猫 a cat), ลิงหนึ่งตัว (一身猴子 a monkey), วัวหนึ่งตัว (一身牛 a cow), ไก่ตัวหนึ่ง (一身鸡 a chicken), แมลงหนึ่งตัว (一只虫子 a bug), มังกรหนึ่งตัว (一身龙 a dragon), ปลาหนึ่งตัว (一身鱼 a fish). Normally, all types of animals can use “ตัว” (tu-身) as a classifying word. However, there are some animals need more specific classification. For example, “หอยสังข์หนึ่งชอน (一圆木贝壳 a conch shell)”, conch shell (known in Thai as ‘สังข์ sang’) has been used in Thai traditional wedding ceremony for hundred years ago. The wedding guests will take the ceremonial water pouring conch shell filled with holy water to pour over bride and groom’s hands and give them blessing. According to the shape of conch shell which similarly to wood log, so Thai people borrowed the measure word of wood log “ชอน (kon)” as a special measure word for couch shell instead. Elephant also used a specific word “เชือก (chiak-绳)” instead of “ตัว (tu-身)”. For thousands of years, the elephant has been used for hauling the logs for house building. By the way, when elephant hauled the logs, the elephant owner will tie its hind legs and wood with rope (in Thai rope called ‘เชือก chiak’). Thus, it can be considered as the reason why Thai people used “เชือก (chiak-绳)” as a specific measure word for elephant. Refer to ช้างหนึ่งช้าง (一大象 a elephant), Thai people used animal itself as a measure word only for the animal raised in the palace, same as ม้าหนึ่งม้า (一马 a horse), สุนัขหนึ่งสุนัข (一狗狗 a dog).

In Thai language, the measure word which most frequently used for animal groups is “ฝูง (foong-群)”, such as สุนัขหนึ่งฝูง (一群狗 a pack of dogs), หงส์หนึ่งฝูง (一群鹅 a bevy of swans), แกะหนึ่งฝูง (一群羊 a flock of sheep), ฝูงหนึ่งฝูง (一群猴子 a troop of monkeys), ปลาหนึ่งฝูง (一群鱼 a shoal of fishes). A flock of birds in Thai are called “นกหนึ่งรัง (一窝鸟 a flock of birds)”. Due to many birds live in the nest, so Thai people use the nest as a measure word for birds, same as “คอก (cok-畜舍)” and “เล้า (lao-栏舍)”. Thus, it can be considered that the place where animals live can be used as a measure word, such as วัวหนึ่งคอก (一畜舍牛 a herd of cows), ม้าหนึ่งคอก (一畜舍马 a herd of horses), ไก่หนึ่งเล้า (一栏舍鸡 a flock of chickens), หมูหนึ่งเล้า (一栏舍猪 a herd of pigs).

## 6. A Comparative Analysis of Chinese and Thai Measure Words for Animals

Chinese and Thai language divided measure words for animals into individual measure words and collective measure words. The differences of both Chinese and Thai measure words for animals indicated as below:

In Chinese, both individual measure words and collective measure words were divided more closely than Thai by using animal shape and characteristic to distinguish individual unit or collective unit of them. For example, cow, sheep, and pig were characterized by head, so Chinese language used “头tóu” (head) as a counting word. Fish, snake, and dragon were characterized by their long body, so they could not use “头tóu” (head), but used “条 tiáo” (long body) as a counting word instead. On the other hands, Thai people did not concern about animal shape and characteristic because they thought animal is just a living creature, so they used “ตัว (tu-身)” which meaning body as a measure word of animals. There are just only some animals used their characteristics or themselves as measure words such as elephant. Due to elephant has been used not only for hauling things, but also for the war. The elephant’s role in Thailand began as early as the late 1,500 years ago; the Thais took advantage of elephant’s size and strength to fight against the enemy to protect the kingdom. Thus, it is the reason why Thai people used specific measure word instead of an ordinary measure word “ตัว (tu-身)”.

From the above, it can be seen that measure words for animals in both Chinese and Thai have their own characteristics. It is precisely because of the differences in the historical background, geography, and culture of China and Thailand.

## 7. Conclusion

This paper analyzed and found that even both Chinese and Thai languages also use measure word along with numerals to define the quantity of noun, however, there are still some different usages based on the differences of history, geography and culture between China and Thailand. The differences between the two languages will be the difficulty for language learner. Hopefully, this paper can be a useful guideline to help Chinese language learner to understand more clearly about measure words for animals.

## 8. References

- Chayaporn Chawla. (2016). A semantic of classifier 只zhī, 个gè and 条tiáo in Mandarin and three Southern Chinese dialects. *Journal of Humanities Regular*, 19(1).
- Katica Balenovic. (2014). Acquisition of English articles by Croatian primary school students in early English foreign language learning. *American Journal of Educational Research*, 2(7), 436-440.
- Liu, Yuehua. (2001). *Practical grammar of modern Chinese*. Beijing, China: The Commercial Press.
- Lü, Shuxiang. (1956). *Chinese Grammar*. Beijing, China: The Commercial Press.
- Minmin. (2012). *Chinese measure words III-for animals*. Retrieved from <http://www.learningchineseeveryday.com/2012/06/16/chinese-measure-words-iii-for-animals/>.
- Nazanin Mirhadizadeh. (2016). Internal and external factors in language learning. *International Journal of Modern Language Teaching and Learning*, 1(5), 188-196.
- Pei, Xiaorui. (2001). *A new grammar of Thai*. Beijing, China: Beijing University Press.
- Robert Lado. (1957). *Linguistics across cultures*. Michigan, MI: University of Michigan Press.
- Rod Ellis. (1994). *Second language acquisition*. Oxford, England: Oxford University Press.
- Selinker, L. (1972). *Interlanguage: International review of applied linguistics*. Cambridge, England: Cambridge University Press.
- Sharon Wang. (2018). *10 most frequently-used Chinese measure words*. Retrieved from <http://www.mandarininn.cn/blog/10-most-frequently-used-chinese-measure-words>.
- Shi, Yuzhi. (2001). The cognitive foundations of the shape based classifiers in modern Chinese. *Language Teaching and Linguistic Studies*, 1, 34-41.

Suthinee Suktrakul. (1983). *Comparative language analysis*. Bangkok, Thailand: Thammasat University Press.

Terence Odlin, Michael H., Jack C. Richards. (2003). *Language transfer: Cross-linguistic influence in language learning*. Cambridge, England: Cambridge University Press.

Uppakijsilpasarn, Praya. (2005). *Thai grammar*. Bangkok, Thailand: Thaiwatthanaphanit Press.

Zhu, Dexi. (1980). *Modern Chinese grammar Research*. Beijing, China: The Commercial Press Library.

Guo, Shaoyu. (1938). *The elastic function of Chinese word length*. Taipei, Taiwan: Shuju Press.

# **The effect of self-efficacy to regulate exercise factors on university students' physical activities**

**Minh Nhat Tran Viet**

General Education Program  
Burapha University International College  
Chonburi 20131, Thailand  
Email: tranviet@go.buu.ac.th

## **Abstract**

Exercising regularly is the most important thing that people can do to improve their health. “The more the better” relationship between exercise and health have remarkable benefits for everyone, regardless gender, and educational levels. Among that, self-efficacy is considered as a key factor that encourages people to overcome challenging situations to stick with their exercise routine. Unfortunately, there is only 42.4% of Thai adults met the recommendation level of exercise proposed by World Health Organization and 33.8% had a very high level of physical inactivity. Therefore, the purpose of this study was to understand physical activity self-efficacy among university students in a longitudinal research in order to develop tailored physical activity programs and promotions to satisfy university students' needs. Males reported a significant higher level in internal feelings, external influences, and competing demand than females. There is also a difference of internal feelings between Junior and Sophomore at sig = 0.035.

**Keywords:** Self-efficacy; university students; physical activity; longitudinal

## **1. Introduction**

The Self-Efficacy to Regulate Exercise Scale (SERES) is the most commonly used instrument in many researches which tried to assess persons' levels of confidence in maintaining physical activity when confronted with challenges and obstacles (Ashford, Edmunds, & French, 2010; Bandura, 1997, 2006; Sharma, Sargent, & Stacy, 2005). This a valid and reliable scale which has been used for obesity population (Sobal & Stunkard, 1989), Hemodialysis patients (Hatef, Nia, Boyle, & Shafipour, 2018; Patterson, Meyer, Beaujean, & Bowden, 2014), renal transplantation patients (Zelle et al., 2016), Type 2 Diabetes Mellitus (Heijden, Pouwer, & Pop, 2014), nursing students (J. C.-Y. Chan, 2014; J. C. Y. Chan & Lee, 2013), pregnancy women (Da Costa & Ireland, 2013), African American women (Robinson & Wicks, 2012), older adults (E. McAuley et al., 2011), and university students (Sabo, Kueh, & Kuan, 2019). To date, only one research focused on university students but it was just the psychometric properties of SERES in Malay language (Sabo et al., 2019). There is a need for understanding and assessing levels of self-efficacy for participation in physical activity among university students, especially to identify the motives and reasons why they continue to exercise.

## **2. Research Objectives**

The purpose of this study was to understand physical activity self-efficacy among university students in a longitudinal research with the following questions:

1. What are the factors that motivate university students to get themselves exercise during some challenging situations?
2. What are the factors that prevent university students to get themselves exercise during some challenging situations?
3. Does self-efficacy for physical activity differ by gender and education levels?

### **3. Literature Review**

Physical activity plays a main role in lower the risk of chronic diseases such as: stroke, cardiovascular diseases, obesity, premature death, type 2 diabetes, high blood pressure, adverse blood lipid profile, and some cancers especially in breast and colorectal cancers (Pirasteh, Hidarnia, Asghari, Faghihzadeh, & Ghofranipour, 2008). Furthermore, physical activity will improve physiological and psychological health such as: strengthen muscles, bone functions, body balance to reduce the risk of falls or injuries from falls, decreased depression and anxiety levels, improved mental health and better cognitive functions. In summary, many governments and global authorities consider physical activity are the most important activities to improve individual's health ("National Physical Activity Plan," 2018; Thailand, 2017).

According to the Center for Disease Control and Prevention (2018), only 20% of adults meet the key guidelines for both aerobic and muscle-strengthening activity while nearly 50% of them get enough aerobic physical activity per week to meet the key guidelines (Prevention, 2018). Unfortunately, there is only 42.4% of Thai adults met the recommendation level of exercise proposed by World Health Organization and 33.8% had a very high level of physical inactivity (Liangruenrom et al., 2017). There are many reasons to explain that such as: individual, environment, and structural. Individual reasons included his/her knowledge, awareness, and behavior of physical activity. While environment reasons mentioned about city planning like transportation system, public park which have more space for physical activity. Public, local, private, people, and academic sectors are part of structural reasons (Thailand, 2017).

Among these reasons above, low exercise self-efficacy (ESE) is the reason why most of adults may not meet these physical activity guidelines. Exercise self-efficacy is an individual's belief in his/her ability to perform and succeed in challenging physical activity or exercise situations (Bandura, 1982). A research from E. McAuley and Blissmer (2000) showed that ESE, known as reciprocal determination, was both a causal element and outcome of exercise behavior. Persons with high ESE beliefs tended to exercise more (Hankonen, Absetz, Ghisletta, Renner, & Uutela, 2010), more enjoyment in physical activities with high intensive workload (Hu, McAuley, Motl, & Konopack, 2007; Edward McAuley, Talbot, & Martinez, 1999), put more effort in physical activities (E. McAuley & Mihalko, 1998; Weinberg, Gould, & Jackson, 1979), and had significant weight loss during and after dietary self-control program (Bernier & Avard, 1986; Byrne, Barry, & Petry, 2012; Linde, Rothman, Baldwin, & Jeffery, 2006; Weinberg, Hughes, Critelli, England, & Jackson, 1984).

Moreover, ESE is a reliable predictor of health behavior change which the higher level of ESE you have, the more time you spend in exercising and maintaining physical level (Hankonen et al., 2010; Zelle et al., 2016). Normally, as person thinks that his/her weaknesses couldn't challenge the tasks, he/she will see them as threats and decide to avoid them. Therefore, these challenges might prevent them from achieving their succeeding. In this case, when confronted with obstacles or challenging in exercise, persons with low ESE lose faith in his/her abilities to overcome them and easily give up (Hayden, 2017).

The Self-Efficacy to Regulate Exercise Scale (SERES) is the most commonly used instrument in many researches which tried to assess persons' levels of confidence in maintaining physical activity when confronted with challenges and obstacles (Ashford, Edmunds, & French, 2010; Bandura, 1997, 2006; Sharma, Sargent, & Stacy, 2005). This a valid and reliable scale which has been used for obesity population (Sobal & Stunkard, 1989), Hemodialysis patients (Hatef, Nia, Boyle, & Shafipour, 2018; Patterson, Meyer, Beaujean, & Bowden, 2014), renal transplantation patients (Zelle et al., 2016), Type 2 Diabetes Mellitus (Heijden, Pouwer, & Pop, 2014), nursing students (J. C.-Y. Chan, 2014; J. C. Y. Chan & Lee, 2013), pregnancy women (Da Costa & Ireland, 2013), African American women (Robinson & Wicks, 2012), older adults (E. McAuley et al., 2011), and university students (Sabo, Kueh, & Kuan, 2019). To date, only one research focused on university students but it was just the psychometric properties of SERES in Malay language (Sabo et al., 2019). There is a need for understanding and assessing levels of self-efficacy for participation in physical activity among university students, especially to identify the motives and reasons why they continue to exercise.

There is a significant decline in physical participation of university students from 18-24-year-old (Caspersen, 2000). The reasons for this decline maybe come from the pressure of academic performance (Strong, Parks, Anderson, Winett, & Davy, 2008), spending more time on online social networks (Maher et al., 2014), and limited intervention that met the needs of young adults (Keating, Guan, Piñero, & Bridges, 2005). While in Thailand, social support, interpersonal and parent/family influences, and information support are the factors that related to physical activities in adults (Liangruenrom, Craike, Biddle, Suttikasem, & Pedisic, 2019). Although the main target of population group was adults (51.1%) who has problem in cardiovascular disease, diabetes, and hypertension (22%, 21%, and 21% respectively), there is no research conduct on university students' population until now (Liangruenrom et al., 2018). Moreover, Liangruenrom et al. (2018) proposed that longitudinal studies should be carried on to provide stronger evidence on determinants and outcomes of physical activities by using standardized measures.

Many researches focused on the relationship between self-efficacy and physical activity adaptation and maintenance of university students, however previous studies failed to examine the potential important of gender, education levels, and type of self-efficacy differences among them (Keating et al., 2005). Thus, this current study addresses these gaps in the literature and pursues the understanding of physical activity self-efficacy among university students in a longitudinal research with the following questions:

1. What are the factors that motivate university students to get themselves exercise during some challenging situations?
2. What are the factors the prevent university students to get themselves exercise during some challenging situations?
3. Does self-efficacy for physical activity differ by gender and education levels?

These information from this research would help to create the first phase of multiple intervention to promote and increase physical activity of university students, especially Burapha University International College. Furthermore, this is a longitudinal research so cohort university students who participated in this study will be followed up for four year from Freshman to Sophomore, Sophomore to Junior, and Junior to Senior. During that time, students will be examined the corresponding exercise self-efficacy factors and key cognitive factors once per year. The results from this research will fulfill the gap of exercise self-efficacy literature, especially for university students, by using longitudinal approach (Keating et al., 2005; Liangruenrom et al., 2019).

#### **4. Research Methodology**



This is a longitudinal study with 381 undergraduated students (age 18-23) who volunteered to participate. The participants were informed that they can withdraw from the survey anytime without any penalties. There were more female (n = 234, 61.4%) than male (n = 147, 38.6%). Participants' educational levels were: 41.2% Freshman (n = 157), 21.3% Sophomore (n = 81), 23.6% Junior (n = 90), and 13.9% Senior (n = 53).

The SERES is an 18 items assessment which had participants to rate his/her certainty levels of completing exercise routines during a week (three or more time) on a scale of 0-100 (0 = *cannot do at all* to 100 = *highly certain can do*) (Bandura, 2006). To date, there were only two researches by using principal components analysis found SERES supported for a single component that accounted for 78% of total variance without rotation and three components (Situational/Interpersonal factors, Competing demand, and Internal feelings) when using rotation (Shin, Jang, & Pender, 2001). While Everett, Salamonson, and Davidson (2009) research confirmed a single component which explained 58% of total variance. In contradict with two researches above, the SERES was good fit with two factors: Emotional Issues and External Influences by using common factor analysis and bifactor techniques (Cornick, 2015).

#### Statistical analysis

SPSS 25 was used for all statistical analyses with independent factors were Gender (male and female), and Educational levels (Freshman, Sophomore, Junior, and Senior). The dependent variables were SERES scale scores. Principle component analysis with Varimax rotation was used to figure out factors that motive or prevent students to exercise during some challenging situations. Two-way ANOVA with Post Hoc Tests were employed to find out if there were significant differences of self-efficacy for physical activity between gender and educational levels (Field, 2017).

### 5. Results

A principal component analysis was conducted on 18 items with Varimax rotation. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = 0.890 ("meritorious" according to Kaiser (1974)), Approximate of Chi-square = 2748.70 with df = 136, which is significant at 0.05 level of significance.

An initial analysis was run to obtain eigenvalues for each factor in the data. Four factors had eigenvalues over Kaiser's criterion of 1 and in combination explained 61.32% of variance. Table 1 shows the factor loadings after rotation with the items that cluster on the same factor suggest that factor 1 represents "Internal feeling", factor 2 for "External Influences", factor 3 for "Situational factors", and factor 4 for "Competing demand".

**Table 1 Summary of principle component analysis factor loading and composite reliability**

Constructs and items	Standardized loading	Composite reliability
<b>Internal feelings</b>		
When I am feeling anxious	0.724	
When I am feeling depressed	0.718	
During or after experiencing personal problems	0.681	
When I am feeling under pressure from work	0.616	0.849
After recovering from an illness that caused me to stop exercising	0.612	
After recovering from an injury that caused me to stop exercising	0.544	
When I feel tired		

<b>External influences</b>		
When I have other time commitments	0.753	
During vacation	0.707	
After vacation	0.651	0.801
After experience family problems	0.609	
When I feel physical discomfort when I exercise	0.521	
<b>Situational factors</b>		
When visitors are present	0.725	
When I have too much work to do at home	0.619	0.749
When there are other interesting things to do	0.590	
<b>Competing demand</b>		
Without support from my family or friends	0.749	0.673
If I don't reach my exercise goals	0.746	

With the composite reliability greater than 0.7 (except “Competing demand” with 0.673) showed that all constructs were acceptable and in combination explained 61.32% of variance which satisfied in social sciences research.

**Table 2 Summary results of independent sample test between gender**

	Male (n = 147)		Female (n = 234)		t	P values
	Mean	SD	Mean	SD		
<b>Internal feelings</b>	51.115	15.258	44.880	16.195	3.740	0.000
<b>External influences</b>	52.415	17.293	46.828	17.486	3.049	0.002
<b>Situational factors</b>	50.857	17.886	47.850	18.777	1.549	0.122
<b>Competing demand</b>	53.850	20.979	48.496	21.209	2.409	0.016

There were significant difference in internal feelings, external influences, and competing demand between male (M = 51.115, SD = 15.258; M = 52.451, SD = 17.293; M = 53.850, SD = 20.979) with female (M = 44.880, SD = 16.195; M = 46.828, SD = 17.486; M = 48.496, SD = 21.209) conditions;  $t(379) = (3.740; 3.049; 2.409)$ ,  $p = (0.000; 0.002; 0.016) < .05$

**Table 3 Summary results of two-way ANOVA and Post Hoc Test**

	ANOVA		Post Hoc test
	F	Sig	
<b>Internal feelings</b>	2.693	0.046	There is a difference of internal feelings between Junior and Sophomore at sig = 0.035
<b>External influences</b>	0.163	0.921	There is no difference of external influences between educational levels
<b>Situational factors</b>	0.236	0.872	There is no difference of situational factors between educational levels
<b>Competing demand</b>	1.530	0.206	There is no difference of competing demand between educational levels

## 6. Discussion and Conclusion

The purpose of this study was to understand physical activity self-efficacy among university students in a longitudinal research with the following questions:

1. What are the factors that motivate university students to get themselves exercise during some challenging situations?
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According to factor analysis, “During bad weather” is the most factors that prevent university students to be able to stick on his/her exercise routine regularly. This finding is supporting the previous study that weather condition caused a significant decrease in hours of exercise of lower socioeconomic populations (including university students)(Eisenberg & Okeke, 2009). In order to encourage university students to exercise more during bad weather, university should have a policy to provide and increase the attractiveness of indoor facilities and activities.

There are many factors that motive university students to exercise more frequently such as: internal feelings, external influences, situational factors, and competing demand. For “internal feelings”, university students tend to exercise more “When I am feeling anxious

, When I am feeling depressed, When I am feeling under pressure from work, When I feel tired”.

It is quite clear about the benefits of exercise to enhance and satisfy personal mood such as: treatment depression (Elbe, Lyhne, Madsen, & Krustrup, 2019; Stanton, Rebar, & Rosenbaum, 2019), mental and social functioning (Alphonsus, Su, & D’Arcy, 2019), cognitive performance (Borenstein & Mortimer, 2016), “the more the better” relationship (Elbe et al., 2019), and effect for physical functioning likes “After recovering from an illness that caused me to stop exercising, After recovering from an injury that caused me to stop exercising”. Enjoying exercise is a key role in combatting depression instead of being treated pharmacologically.

Another rising factor that needs to be considered is “When there are other interesting things to do”. At this moment, the new student generation is the major use of online social networks and they value its benefits that brings to them (Gonzalez, Gasco, & Llopis, 2019), however it also consume lots of their time on that. For this reason, university policy should focus on how to promote more exercise intervention on online social network because there was a prove that exercise intervention on online social network would be effective (Maher et al., 2014).

“If I don’t reach my exercise goals” shows that students with higher efficacy in exercise would overcome the barriers to physical activity, and more enjoyment in fitness goals (Dishman, McIver, Dowda, Saunders, & Pate, 2019).

Self-efficacy for physical activity is difference between male and female especially in internal feelings, external influences, and competing demand. Males reported a significant higher level in all three factors than females. Thus, males had higher confidence in sticking with exercise routine under challenging conditions (bad mood, physical condition...) and obstacles (family problems, too much work...) more than females. There is a difference of internal feelings between Junior and Sophomore at sig = 0.035 and it contrasts with the research of Pauline (2013) with no difference between educational levels. The difference may come from the point of views of what benefits of exercise that could bring to them. This finding will have direct implication on university policy in physical activity interventions and programs. Female students will need an intervention to aware, educate, and apply physical activity into their schedule. Moreover, all of university students need a program to help them to engage in physical activity even though the weather is not ideal.

The next step of this multiphase exploration is developing tailored physical activity programs and promotions to satisfy university students’ needs from utilization all of the information above.

## 8. References

Alphonsus, K. B., Su, Y., & D’Arcy, C. (2019). The effect of exercise, yoga and physiotherapy on the quality of life of people with multiple sclerosis: Systematic review and meta-analysis. *Complementary Therapies in Medicine*, 43, 188-195. Retrieved from

- <http://www.sciencedirect.com/science/article/pii/S0965229918310021>.  
doi:<https://doi.org/10.1016/j.ctim.2019.02.010>
- Ashford, S., Edmunds, J., & French, D. P. (2010). What is the best way to change self-efficacy to promote lifestyle and recreational physical activity? A systematic review with meta-analysis. *British journal of health psychology*, 15(2), 265-288.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147. doi:10.1037/0003-066X.37.2.122
- Bandura, A. (1997). Self-efficacy: The exercise of control. *Self-efficacy: The Exercise of Control*.
- Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-efficacy beliefs of adolescents*, 307-337.
- Bernier, M., & Avard, J. (1986). Self-efficacy, outcome, and attrition in a weight-reduction program. *Cognitive Therapy and Research*, 10(3), 319-338. Retrieved from <https://link.springer.com/article/10.1007%2FBF01173469>. doi:10.1007/BF01173469
- Borenstein, A. R., & Mortimer, J. A. (2016). Chapter 16 - Physical Activity. In A. R. Borenstein & J. A. Mortimer (Eds.), *Alzheimer's Disease* (pp. 259-270). San Diego: Academic Press.
- Byrne, S., Barry, D., & Petry, N. M. (2012). Predictors of weight loss success. Exercise vs. dietary self-efficacy and treatment attendance. *Appetite*, 58(2), 695-698. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3726181/pdf/nihms349058.pdf>. doi:10.1016/j.appet.2012.01.005
- Caspersen, C. J., Mark A. Pereira, and Katy M. Curran. (2000). Changes in physical activity patterns in the United States, by sex and cross-sectional age. *Medicine & Science in Sports & Exercise*, 32(9), 1601-1609. Retrieved from <https://pdfs.semanticscholar.org/bed1/9c65d5e453aeb277cfc4aeec9534c6def28c.pdf>.
- Chan, J. C.-Y. (2014). Psychological determinants of exercise behavior of nursing students. *Contemporary Nurse*, 49, 60+. Retrieved from <https://link.galegroup.com/apps/doc/A397135704/AONE?u=burapha&sid=AONE&xid=adb43288>.
- Chan, J. C. Y., & Lee, D. T. F. (2013). *Cross-sectional study on the health-promoting lifestyle of nursing students in Hong Kong*.
- Cornick, J. E. (2015). Factor Structure of the Exercise Self-Efficacy Scale. *Measurement in Physical Education and Exercise Science*, 19(4), 208-218. Retrieved from <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84944028798&doi=10.1080%2f1091367X.2015.1074579&partnerID=40&md5=d4038691a964540792f295637649d335>  
<https://www.tandfonline.com/doi/full/10.1080/1091367X.2015.1074579>.  
doi:10.1080/1091367X.2015.1074579
- Da Costa, D., & Ireland, K. (2013). Perceived Benefits and Barriers to Leisure-Time Physical Activity During Pregnancy in Previously Inactive and Active Women. *Women and Health*, 53(2), 185-202. doi:10.1080/03630242.2012.758219
- Dishman, R. K., McIver, K. L., Dowda, M., Saunders, R. P., & Pate, R. R. (2019). Self-efficacy, beliefs, and goals: Moderation of declining physical activity during adolescence. *Health Psychology*, 38(6), 483-493. doi:10.1037/hea0000734
- Eisenberg, D., & Okeke, E. (2009). Too Cold for a Jog? Weather, Exercise, and Socioeconomic Status. In *The B.E. Journal of Economic Analysis & Policy* (Vol. 9).
- Elbe, A.-M., Lyhne, S. N., Madsen, E. E., & Krstrup, P. (2019). Is regular physical activity a key to mental health? Commentary on "Association between physical exercise and mental health in 1.2 million individuals in the USA between 2011 and 2015: A cross-sectional study", by Chekroud et al., published in *Lancet Psychiatry*. *Journal of sport and health science*, 8(1), 6-7. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/30719377>  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6349619/>. doi:10.1016/j.jshs.2018.11.005

- Everett, B., Salamonson, Y., & Davidson, P. M. (2009). Bandura's exercise self-efficacy scale: Validation in an Australian cardiac rehabilitation setting. *International Journal of Nursing Studies*, 46(6), 824-829. doi:10.1016/j.ijnurstu.2009.01.016
- Field, A. (2017). *Discovering Statistics Using IBM SPSS Statistics: North American Edition*: Sage.
- Gonzalez, R., Gasco, J., & Llopis, J. (2019). University students and online social networks: Effects and typology. *Journal of Business Research*. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0148296319300116>. doi:<https://doi.org/10.1016/j.jbusres.2019.01.011>
- Hankonen, N., Absetz, P., Ghisletta, P., Renner, B., & Uutela, A. (2010). Gender differences in social cognitive determinants of exercise adoption. *Psychology and Health*, 25(1), 55-69. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/08870440902736972>. doi:10.1080/08870440902736972
- Hatef, M., Nia, H. S., Boyle, C., & Shafipour, V. (2018). The Validity and Reliability of the Exercise Self-Efficacy Scale in a Sample of Hemodialysis Patients. *Journal of nursing measurement*, 26(3), 566-578. Retrieved from <https://connect.springerpub.com/content/sgrjnm/26/3/566>.
- Hayden, J. (2017). *Introduction to health behavior theory*: Jones & Bartlett Learning.
- Heijden, M., Pouwer, F., & Pop, V. (2014). Psychometric Properties of the Exercise Self-efficacy Scale in Dutch Primary Care Patients with Type 2 Diabetes Mellitus. *International Journal of Behavioral Medicine*, 21(2), 394-401. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=95298527&site=ehost-live>  
<https://link.springer.com/content/pdf/10.1007%2Fs12529-013-9308-z.pdf>.
- Hu, L., McAuley, E., Motl, R. W., & Konopack, J. F. (2007). Influence of self-efficacy on the functional relationship between ratings of perceived exertion and exercise intensity. *Journal of Cardiopulmonary Rehabilitation and Prevention*, 27(5), 303-310. doi:10.1097/01.HCR.0000291298.70517.7e
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31-36.
- Keating, X. D., Guan, J., Piñero, J. C., & Bridges, D. M. (2005). A meta-analysis of college students' physical activity behaviors. *Journal of American College Health*, 54(2), 116-126. Retrieved from <https://www.tandfonline.com/doi/abs/10.3200/JACH.54.2.116-126>.
- Liangruenrom, N., Craike, M., Biddle, S. J. H., Suttikasem, K., & Pedisic, Z. (2019). Correlates of physical activity and sedentary behaviour in the Thai population: a systematic review. *BMC public health*, 19(1), 414-414. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/30991973>  
<https://www.ncbi.nlm.nih.gov/pmc/PMC6469108/>  
[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6469108/pdf/12889\\_2019\\_Article\\_6708.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6469108/pdf/12889_2019_Article_6708.pdf). doi:10.1186/s12889-019-6708-2
- Liangruenrom, N., Suttikasem, K., Craike, M., Bennie, J. A., Biddle, S. J. H., & Pedisic, Z. (2018). Physical activity and sedentary behaviour research in Thailand: a systematic scoping review. *BMC public health*, 18(1), 733-733. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/29898706>  
<https://www.ncbi.nlm.nih.gov/pmc/PMC6001063/>  
[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6001063/pdf/12889\\_2018\\_Article\\_5643.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6001063/pdf/12889_2018_Article_5643.pdf). doi:10.1186/s12889-018-5643-y
- Liangruenrom, N., Topothai, T., Topothai, C., Suriyawongpaisan, W., Limwattananon, S., Limwattananon, C., . . . Tangcharoensathien, V. (2017). *Do Thai People Meet Recommended Physical Activity Level?: The 2015 National Health and Welfare Survey* (Vol. 11).

- Linde, J. A., Rothman, A. J., Baldwin, A. S., & Jeffery, R. W. (2006). The impact of self-efficacy on behavior change and weight change among overweight participants in a weight loss trial. *Health Psychology, 25*(3), 282-291. doi:10.1037/0278-6133.25.3.282
- Maher, C. A., Lewis, L. K., Ferrar, K., Marshall, S., De Bourdeaudhuij, I., & Vandelandotte, C. (2014). Are Health Behavior Change Interventions That Use Online Social Networks Effective? A Systematic Review. *J Med Internet Res, 16*(2), e40. Retrieved from <http://www.jmir.org/2014/2/e40/>  
<https://doi.org/10.2196/jmir.2952>  
<http://www.ncbi.nlm.nih.gov/pubmed/24550083>. doi:10.2196/jmir.2952
- McAuley, E., & Blissmer, B. (2000). Self-efficacy determinants and consequences of physical activity. *Exercise and Sport Sciences Reviews, 28*(2), 85-88.
- McAuley, E., Mailey, E. L., Mullen, S. P., Szabo, A. N., Wójcicki, T. R., White, S. M., . . . Kramer, A. F. (2011). Growth Trajectories of Exercise Self-Efficacy in Older Adults: Influence of Measures and Initial Status. *Health Psychology, 30*(1), 75-83. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3521039/pdf/nihms245372.pdf>. doi:10.1037/a0021567
- McAuley, E., & Mihalko, S. L. (1998). Measuring exercise-related self-efficacy. *Advances in Sport and Exercise Psychology Measurement, 371-390*.
- McAuley, E., Talbot, H.-M., & Martinez, S. (1999). Manipulating self-efficacy in the exercise environment in women: influences on affective responses. *Health Psychology, 18*(3), 288.
- National Physical Activity Plan. (2018). <https://www.physicalactivityplan.org/theplan/about.html>
- Patterson, M. S., Meyer, M. R. U., Beaujean, A. A., & Bowden, R. G. (2014). Using the social cognitive theory to understand physical activity among dialysis patients. *Rehabilitation Psychology, 59*(3), 278-288. doi:10.1037/a0037002
- Pauline, J. S. (2013). *Physical activity behaviors, motivation, and self-efficacy among college students* (Vol. 47).
- Pirasteh, A., Hidarnia, A., Asghari, A., Faghihzadeh, S., & Ghofranipour, F. (2008). Development and validation of psychosocial determinants measures of physical activity among Iranian adolescent girls. *BMC public health, 8*(1), 150.
- Prevention, C. f. D. C. a. (2018). *Physical Activity Guidelines for American*(2nd ed., pp. 118). Retrieved from [https://health.gov/paguidelines/second-edition/pdf/Physical\\_Activity\\_Guidelines\\_2nd\\_edition.pdf](https://health.gov/paguidelines/second-edition/pdf/Physical_Activity_Guidelines_2nd_edition.pdf)
- Robinson, B. K., & Wicks, M. N. (2012). Religiosity, Self-Efficacy for Exercise, and African American Women. *Journal of Religion and Health, 51*(3), 854-864. doi:10.1007/s10943-010-9397-9
- Sabo, A., Kueh, Y. C., & Kuan, G. (2019). Psychometric properties of the Malay version of the self-efficacy for exercise scale. *PloS one, 14*(5), e0215698. Retrieved from <https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0215698&type=printable>.
- Sharma, M., Sargent, L., & Stacy, R. (2005). Predictors of leisure-time physical activity among African American women. *American Journal of Health Behavior, 29*(4), 352-359.
- Shin, Y., Jang, H., & Pender, N. J. (2001). Psychometric evaluation of the exercise self-efficacy scale among Korean adults with chronic diseases. *Research in Nursing and Health, 24*(1), 68-76. Retrieved from <https://onlinelibrary.wiley.com/doi/abs/10.1002/1098-240X%28200102%2924%3A1%3C68%3A%3AAID-NUR1008%3E3.0.CO%3B2-C>. doi:10.1002/1098-240X(200102)24:1<68::AID-NUR1008>3.0.CO;2-C
- Sobal, J., & Stunkard, A. J. (1989). Socioeconomic Status and Obesity: A Review of the Literature. *Psychological Bulletin, 105*(2), 260-275. doi:10.1037/0033-2909.105.2.260
- Stanton, R., Rebar, A., & Rosenbaum, S. (2019). Exercise and mental health literacy in an Australian adult population. *Depression and Anxiety, 36*(5), 465-472. Retrieved from <https://onlinelibrary.wiley.com/doi/abs/10.1002/da.22851>. doi:10.1002/da.22851

- Strong, K. A., Parks, S. L., Anderson, E., Winett, R., & Davy, B. M. (2008). Weight gain prevention: identifying theory-based targets for health behavior change in young adults. *Journal of the American Dietetic Association, 108*(10), 1708-1715. e1703.
- Thailand, N. H. C. O. (2017). Promotion of Physical Activity for Thai People at All Age Groups. [https://en.nationalhealth.or.th/wp-content/uploads/2017/11/NHA10-Miain-Document-promotion-of-physical-activity\\_PA.pdf](https://en.nationalhealth.or.th/wp-content/uploads/2017/11/NHA10-Miain-Document-promotion-of-physical-activity_PA.pdf)
- Weinberg, R. S., Gould, D., & Jackson, A. (1979). Expectations and performance: An empirical test of Bandura's self-efficacy theory. *Journal of Sport Psychology, 1*(4), 320-331.
- Weinberg, R. S., Hughes, H. H., Critelli, J. W., England, R., & Jackson, A. (1984). Effects of preexisting and manipulated self-efficacy on weight loss in a self-control program. *Journal of Research in Personality, 18*(3), 352-358. doi:10.1016/0092-6566(84)90019-9
- Zelle, D. M., Corpeleijn, E., Klaassen, G., Schutte, E., Navis, G., & Bakker, S. J. (2016). Fear of movement and low self-efficacy are important barriers in physical activity after renal transplantation. *PloS one, 11*(2), e0147609.

# STAGE PLAY: STRENGTHENING STUDENTS' ENGLISH PRONUNCIATION

Anon Klaypha<sup>1</sup>, Nantanat Tonboon<sup>2</sup>, Chutima Sangwarinta<sup>3</sup>, Archanya Sriwantanasin<sup>4</sup>,  
Nisakorn Prakongchati<sup>5</sup>, and Joel Grisell<sup>6</sup>

English Program, Faculty of Humanities and Social Sciences  
Kamphang Phet Rajabhat University  
Kamphaeng Phet 62000, Thailand  
Email: nantanat.ton@gmail.com

## Abstract

This study aimed to improve students' English pronunciation. The participants were 19 English Program students in the Faculties of Humanities and Social Sciences and Education, Kamphaeng Phet Rajabhat University, Thailand. These students performed as characters in an English play entitled "The Audition". The data collection methods were 1) video recordings, 2) word-checking tables, 3) post-interviews, and 4) pronunciation evaluation interviews. The findings showed that the students had significant difficulty with some aspects of English pronunciation, such as omitting the final sounds when pronouncing words with endings such as "th", "ed", "sh", "s" and "d". Furthermore, results of pronunciation evaluation interviews with the play director and the head of the English Program showed that the students' pronunciation were improved by the help of the teacher-coaches. The findings of post-interviews also revealed that coaching helped reduce the students' anxiety and increase their confidence when pronouncing English words. Results showed significant pronunciation improvement.

**Keywords:** English pronunciation; Play; Thai university students

## 1. Introduction

The faculty of the English Program believed that one of the benefits of extracurricular activities would be to provide more opportunities for the students to practice English in more social and non-academic situations. In late 2017, program teachers proposed producing an English language play with a view to providing an enriched learning experience for our students. The plan was to audition students in December 2017, cast the play, conduct rehearsals beginning in early January 2018, and present the finished play in public performances in March 2018. However, during play casting in the first week of December, teachers observing the students' performances found numerous pronunciation problems. One of the problems was that the students encountered difficulties in English mispronunciation and felt nervous whenever they pronounced some unknown words. These problems could become a barrier to a successful performance of the play in March. Therefore, this research project was initiated to help the students practice their English pronunciation for the play, to help reduce their anxiety level and to help increase their self-esteem level. As mentioned in Shand (2008) and Barnett (1998), plays or drama can help students increase self-image, motivations, and positive emotional state together with English skill practice. Additionally, participating in a play would promote a cooperative relationship among the students and enhance their positive feelings toward the English language.



Moreover, Monroe (2015) mentioned that pronunciation is hardly given enough attention; in fact, it is one of the most difficult aspects in learning the English language. At the secondary and tertiary levels, pronunciation seems to be a growing problem among foreign students (Jenkins, 2007). Most of these students lack neutral ground to practice their English skills and to sharpen their pronunciation skills. It causes difficulty in speaking English efficiently in the future.

According to Putri, Marbun and Rosnija (2016), teaching correct pronunciation by using drama techniques improved students' achievement. In this study, it was found that the students' achievement increased by a mean score of 5.62 between pre-test and post-test as a result of using drama techniques to improve pronunciation. Supporting this research, Punsiri (2011) and Atas (2015) found that drama training and drama techniques significantly lowered the speaking anxiety of EFL learners.

## **2. Research Objectives**

This research declares the objectives as follows:

1. To identify English pronunciation problems
2. To solve the problems found in 1

## **3. Literature Review**

In the field of teaching and learning English, drama is seen as a technique which helps improve learners' English language skills, especially in pronunciation. In this aspect, Carkin (2004) mentioned that drama has been used for the purpose of developing clear pronunciation and good speech habits. Drama in the classroom where English is used as the target language can support communicative language practices and also encourage the development of imaginative interplay among language learners. In addition, it can be used as a tool in pronunciation practice. In terms of practicing pronunciation, repetition helps learners develop better speech and articulation habits and achieve the clear speech they are expecting. Furthermore, the use of repetition in rehearsing the play can assist the learners in taking control of the correction process by making them more aware of the sound problems.

Putri, Marbun and Rosnija (2016) stated that the dialogue in a good play will be accurate and natural. It will be similar to the way we talk. We do not talk in practice patterns and drills. We talk about ideas. We talk with emotion. We talk with feelings, and we learn to add these to the words if we are going to have true communication. Putri, Marbun and Rosnija (2016) also noted that the actors and actresses in a play will have monologues to say to the audiences. Thus, the monologue itself must be practiced by those performers many times. This repetition will help the learners become accustomed to the language they have chosen as their target language. In this aspect, Davies (1990) elaborated that drama activities facilitate the type of language behavior that should lead to fluency, and if this is accepted, the learners want to learn a language in order to make themselves understood in the target language.

Moore (1997) mentioned that drama can enable us to investigate how accurately students can pronounce words and use meaningful intonation. It is true that using drama as a technique in the language classroom can help learners have better and more clear pronunciation. Thus, they will be trained simultaneously in how to pronounce each word from the play script so that the audience does not misunderstand it.

There are some research studies focusing on using plays to improve students' English pronunciation and to reduce their anxiety level in using English. For example, Putri, Marbun and Rosnija (2016) studied about using drama techniques to improve students' English pronunciation. The drama techniques consisted of dialogues which involved certain sounds which were extracted from an English language drama, and which were applied to 25 students. In addition, the students

were given a pre-test and a post-test. The results of data collection showed that drama techniques positively affected students' pronunciation as it provided the students with the correct pronunciation of English to practice. In this respect, the students were able to speak accurately and fluently in English. Additionally, they could understand utterances more easily.

Studies of drama techniques and speaking anxiety were also conducted with EFL learners; for example, Fung (2005) studied the effect of anxiety in a drama-oriented second language classroom. The participants in the study were 37 students in English as the medium of instruction (EMI) secondary school in Hong Kong. The results from an FLCA measuring questionnaire and an individual interview, including journals from the participants were varied because while most students were found to have a lower level of anxiety in the drama-oriented second language classroom, a small group of students felt nervous occasionally. Furthermore, role-play was found to be an activity that helped decrease students' level of anxiety.

Punsiri (2011) studied the effectiveness of drama techniques on Thai EFL students' Foreign Language Classroom Anxiety (FLCA) reduction by investigating the types of FLCA that the students had, examining drama activities that affect English language learning of the students with FLCA, and improving drama techniques in order to reduce FLCA. Forty-four non-English major university students selected by a non-random sampling method participated in the study. Eight drama technique-based lesson plans, an FLCA questionnaire and guided questions for focus group discussion were employed to serve the purposes of the study. The results revealed that all participants had overall FLCA at the moderate level before the experiment. It also found that the participants had Communication Apprehension at the high level in accordance with three types of FLCA classified with Fear of Negative Evaluation and Test Anxiety at the moderate levels. After learning through drama techniques, the FLCA of the participants reduced significantly at the .05 level. Based on qualitative data analyzed, it indicated that prepared-improvised drama and drama games were the most effective activities in reducing the students' FLCA. Lastly, the participants reported that teachers had a friendly appearance, a sense of humor, and used non-threatening words to make the students feel safe in class. In addition, they also recommended that teachers pay careful attention to the students' language performance in order to help correct their mistakes.

Another example was the study of Atas (2015) which aimed to find out how and to what extent drama helps to lower the level of speaking anxiety among EFL learners. The study was conducted with 24, 12<sup>th</sup> grades students at high school in Kuzan, Turkey. In his study, the triangulation of the data was established with pre and post-tests; semi-structured pre and post interviews; and student diaries. The teacher's reflections strengthened the qualitative aspect of the study. After six weeks of language and drama training, the results revealed that the drama techniques significantly lowered the speaking anxiety of EFL learners.

#### **4. Research Methodology**

##### **4.1 Participants**

The participants were 19 English major students. A purposive sampling method was applied in this study, as the purposes of the study was focused on investigating only the pronunciation problems and the anxiety level of the actors and actresses in the stage play.

##### **4.2 Research instruments**

The research instruments of the study included the video recorded on the audition day used to identify students' English pronunciation problems, the word-checking tables used to record and track students' pronunciation improvement, the interview used to elicit their anxiety level, the interview used to discover students' pronunciation competency as reported by the

director of the play, a native English speaker and the interview used to explore students' specific pronunciation errors, as reported by the head of the English Program, a PhD in Applied Linguistics.

#### 4.3 Data collection

In this study, the play rehearsals were held during January and February, 2018, and the data collection was organized with the following steps:

1. The researchers recorded the stage play on the audition day in order to identify students' English pronunciation problems.
2. The researchers watched the video, analyzed and listed the mispronounced words from the video and then created the word-checking tables for pronunciation practice.
3. The students practiced the words listed with their specific pronunciation problems. The words were checked by the teachers in the word-checking tables. After that, the students rehearsed the script lines with the teachers and the words were checked by the teachers in the word-checking tables. This process was done three days per week for a period of six weeks. Apart from that, the students also rehearsed the play with the director five times per week.
4. An interview was used to investigate the anxiety level of the actors and actresses of the play before and after the three public performances.
5. An interview was used to assess students' pronunciation competency as reported by the director of the play at the start of rehearsals and after the three public performances.
6. An interview was used to explore students' specific pronunciation errors as reported by the head of English Program at the start of rehearsals and after the three public performances.

#### 4.4 Data analysis

In this study, a content analysis was employed to confirm whether the play helped improve students' English pronunciation. In this aspect, the word-checking tables, the interview used to measure students' anxiety level, the interview used to discover students' pronunciation as reported by the director of the play and the interview used to explore students' pronunciation as reported by the head of English Program were analyzed based on 1) decontextualization (identifying meaning units), 2) recontextualization (comparing the units with the original data), 3) categorization (condensing meaning units and bringing subjects together), and compilation (finding the underlying meaning of the text) (Bengtsson, 2016; Erlingsson & Brysiewicz, 2017). To ensure whether the qualitative data were reliable and consistent, the researchers went through the examined data by comparing and checking the word-checking tables and the interviews together with the interviewers and the students.

### 5. Results

The results are divided into two parts based on the two objectives. Part 1 presents the pronunciation words list that were determined during casting. Part 2 demonstrates the solutions based on the interview of the cast members and pronunciation teacher-coaches.

#### Part 1 English pronunciations identification

As stated, the first objective is to identify pronunciation problems of the actors and actresses. This study discovered the pronunciation problems during the casting audition and the words found as the pronunciation problems of the cast members were listed in the word-checking tables.

#### Part 2 Pronunciation solutions

The second objective is to solve the pronunciation problems that were mentioned in the first objective via coaching by the four teacher-researchers. The results of coaching revealed that the pronunciation of the actors and actresses who had English pronunciation problems were improved as shown during the final public performances. These findings were supported by the word-checking tables and the interviews of the actors, the actresses, the director, and the head of the English Program.

There is some supporting evidence from the interviews shown in the followings.

Character: Carrie's mother

Before coaching - "I didn't prepare the screenplay of the character for the casting audition, so I didn't understand the character and situations. In the end, I used the wrong tone in the scene. I also mispronounced some words as well."

After coaching - "After I got trained with my teachers, my pronunciation has been improved. I pronounce the words more correctly. Also, I understand the situations better, I could use the right tone in that situation."

Character: Elizabeth's mother

Before coaching - "I got stuck and didn't have much confidence in pronouncing unfamiliar words."

After coaching - "I pronounce more fluently and have more confidence when I speak English."

Character: Alison's father

Before coaching - "My pronunciation was quite terrible. I wasn't confident speaking my lines."

After coaching - "My pronunciation has improved a lot. I was much more comfortable speaking on stage."

Director:

"During the auditions, and in the early rehearsals, many of the students' had significant pronunciation problems, in phrases such as: 'throw the ball', 'battered and assaulted', 'pig ran thru a department store', 'best of the best', 'really strong skills', and 'become a dermatologist'."

"After training with the coaches, their pronunciation improved dramatically. Some of the students could not pronounce the problem words at all in the beginning or the pronunciation was very difficult to understand. The coaching and frequent practices made a big difference, in a positive way. It helped strengthen their pronunciation."

English Program Head:

"On the day of the audition, the students not only mispronounced words that contain sounds like ð θ ʒ but also placed the wrong stress on the syllables. Moreover, many problems of saying connected speech, especially with regard to sentence stress linking and intonation, were found. In the public performances, it could be concluded that the students' pronunciation was improved based on the intensive coaching program the teacher-coaches gave to the students."

## **6. Discussion and Conclusion**

In this part, the results of an investigation are discussed into two aspects.

Firstly, the results of identifying the actors' English pronunciation problems showed that the students produced mispronounced words as follows:

The words with "th" were omitted such as "with", "birthday", "think". In this regard, it can be speculated that Thai speakers generally have troubles with dental fricatives [ð] and [θ] in

English as there are no dental fricatives in Thai context. The findings were consistent with the study of Han (2013), which reported that Chinese speakers generally have troubles with dental fricatives [θ] and [ð] in English as there are no dental fricatives in Mandarin Chinese (through there are dental fricatives in other Chinese dialects).

This study also found that the participants produced mispronounced words such as “wish” and “finish”. It can be speculated that Thai speakers have trouble with fricative post alveolar [ʃ] because there are no final sounds of fricative post alveolar in Thai context. However, the fricative post alveolar [ʃ] was substituted with plosive alveolar [d]

The words with “ed” ending were omitted such as “existed”, “diseased” and “looked”. Incidentally, it can be explained that there are no “ed” ending sound in Thai context; however, when this sound is omitted, it affects the meaning in terms of past tense.

The words with “s” ending were omitted such as “songs”, “flowers” and “applications”. It can be said that there are no “s” ending sound in Thai context; nevertheless, when this sound is omitted, it affects the meaning in terms of plural form.

The words with “d” ending were omitted such as “understand”, “food” and “weird”. It can be explained that there are no “d” ending sound in Thai context; however, when this sound is omitted, it may cause miscommunication.

Based on the findings mentioned above, it can be seen that the Thai students always omit the final sounds of English.

Secondly, the results of coaching showed that the pronunciations of actors were improved by coaching for 6 weeks. The result was consistent with the word-checking tables. The number of mispronunciations was reduced based on the results of word-checking tables, the director’s interview and the head of English Program’s interview. There is some evidence from the interviews of the director and the head of English Program that supports the findings mentioned above. The director said “After training with the coaches, their pronunciation improved significantly. Some of the students could not pronounce the problem words at all in the beginning or the pronunciation was very difficult to understand as they pronounced words unclearly or incorrectly. The coaching in between rehearsals, and then the extra practice they received in rehearsals made a big difference, in a positive way. In addition to better pronunciation, the students began to improve their intonation, which was just as important or even more important, because they were acting; they were speaking to other characters in a stage voice and trying to convey certain emotions with their voices. Intonation is a big part of this, and in some cases, it helped strengthen their pronunciation.”

The head of English Program said “After the students received some coaching, I noticed a huge improvements in all areas:

- The pronunciation of problematic sounds; for instance, pronouncing ð θ ʒ was better.
- Stress problems both at word level and sentence level were lessened.
- Students were able to say connected speech with more appropriate linking, stress and intonation.

“I believe the improvement in pronunciation was the result of the intensive coaching program the coaches gave to the students.”

The findings corresponded to the study of Putri, Marbun and Rosnija (2016), which found that using Drama Technique affected students’ pronunciation. They confirmed that using such techniques provided students opportunities to practice their pronunciation through drill or repetition.

Moreover, coaching in the play helped reduce students' anxiety levels in producing correct pronunciation. The correct pronunciation implied that it reduces anxiety and increases self-esteem for actors and actresses according to the students' interviews. In addition, the director of the play and the head of English Program also supported that the pronunciation coaching helped improve the students' pronunciation skills and also made their speech more natural as well as improving intonation and tone which have an impact on semantic competence. The findings were consistent with Punsiri (2011) that drama activities helped reduce students' anxiety level.

Lastly, it can be concluded that the intensive coaching by English teachers could help improve student's pronunciation by correcting their mistakes and encouraging them to use the correct speech. Moreover, the play also provided students opportunities in target situations that helped them make their speech, intonation, tone, and inflection more natural, all of which had a positive impact on semantic competence.

## 7. Suggestions

In this study, the 7 students who performed as the main characters in the play (many of whom had longer monologues) also used an application called "Elsa" to help them practice their pronunciation. It was found that the application helped them improve their English pronunciation, as it allowed them to compare their pronunciation with that of native speakers of American English. They were able to practice with the goal of replicating the pronunciation they heard on the app, and then listen to their own recorded voice in comparison. Previous English program students at Kamphaeng Phet Rajabhat University had completed a research study (2017) on the specific methodology that the "Elsa" application employs, and clearly outlined its benefits for improving pronunciation. This technique was not examined in detail in this research because only some of the actors/actresses used the application to practice pronunciation.

## 8. References

- Atas, M. (2015). The Reduction of speaking anxiety in EFL learners through drama techniques. *Procedia-Social and Behavioral Sciences*, (176), 961-969.
- Barnett (1998). cited in (Cheng xu Lin, 2017). *Pronunciation problems as a hindrance to effective communication among Chinese students*.
- Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *Nursing Plus Open*, (2), 8-14.
- Carlin, G. (2004). Drama for pronunciation. *Essential Teacher: Compleat Links*, 1(5).
- Davies, P. (1990). The use of drama in English language teaching. *TESL Canada Journal*, 8(1), 87-99.
- Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African Journal of Emergency Medicine*, 7(3), 93-99.
- Fung, K. W. (2005). A study of the effect of anxiety in a drama-oriented second language classroom. Master's Thesis. Faculty of Arts, University of Hong Kong, Hong Kong.
- Han, F. (2013). Pronunciation Problems of Chinese Learners of English. *ORTESOL Journal*, (30), 26-30.
- Jenkins (2007). cited in (Cheng xu Lin, 2017). *Pronunciation problems as a hindrance to effective communication among Chinese students*.
- Monroe (2015). cited in (Cheng xu Lin, 2017) *Pronunciation problems as a hindrance to effective communication among Chinese students*.
- Moore, H. (1997). Learning Pronunciation and Intonation of Japanese through Drama by Beginning. *JALT Journal*, 19(2), 235.

- Punsiri, B. (2012). *The effectiveness of drama techniques on foreign language classroom anxiety reduction of Thai EFL students* (Doctoral dissertation). Srinakharinwirot University, Bangkok.
- Putri, R. T., Marbun, R., & Rosnija, E. Teaching students' English pronunciation through drama technique. *Jurnal Pendidikan dan Pembelajaran*, 5(2).
- Shand, J. W. (2008). *The use of drama to reduce anxiety and increase confidence and motivation towards speaking English with two groups of English language learners*. The University of Arizona, Arizona.

## **Appendix A**

### **Example of Word Checking-Tables**

**ACTOR: Alison**

**WEEK 1**

No.	WORD	DAY 1 ( _ / _ / _ )				DAY 2 ( _ / _ / _ )				DAY 3 ( _ / _ / _ )			
		W	S1	Po	S2	W	S1	Po	S2	W	S1	Po	S2
1	bass												
2	experience												
3	beast												
4	crucible												
5	role												
6	that												
7	fool												
8	certain												
9	both												
10	mistake												
11	list												
12													
13													
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27													
28													



**W** warm up  
**S1** script practicing (round1)  
**\*** pronunciation problems found later

**Po** post  
**S2** script practicing (round2)

### **Appendix B**

#### **The Students' Interview**

##### **The Students' Interview**

1. On the audition day, how was your pronunciation?

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2. After you were coached by the teachers for your pronunciation, how was your pronunciation?

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### **Appendix C**

#### **The Director of the Play's Interview**

##### **The Director of the Play's Interview**

1. On the audition day, how was the pronunciation of the students?

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2. After they were coached by the teachers for their pronunciation, how was the pronunciation of the students?

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**Appendix D**

**The Head of English Program’s Interview**

**The Head of English Program’s Interview**

1. On the audition day, how was the pronunciation of the students?

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2. After they were coached by the teachers for their pronunciation, how was the pronunciation of the students?

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**Becoming English Proficient:  
Developing Joint Intentional Competencies  
in International Higher Education**

Charlton Bruton, Ph.D.

Burapha University International College  
Chonburi 20131, Thailand  
email: chart.tesol@gmail.com

## Abstract

The following paper reports on research conducted in conjunction with Praxial Interlanguage Education, Experience & Enquiry (PIE), a practitioner research project dating back to 2013. In this excerpt, insider practitioner research is used to explore students' second language (L2) classroom experiences as they develop joint intentional competencies. During a course on Interpersonal Skills, L2 students using English as a Medium of Instruction (EMI) were instructed in mindful communication in an effort to develop students' joint intentional competencies (Tomasello, 2019). As a follow up to instruction, students were tasked with an assignment that required joint agency leading to joint intentionality. After completing the task, students answered three questions in writing. The writings were analyzed using open, selective, and thematic coding. In addition to selective coding, analysis was completed using Hermeneutic Phenomenology (IPA) and Exploratory Practice to integrate research, teaching, and agency (Hanks, 2017; van Manen, 2017). Analysis indicated, that students' initial joint agency helped engage joint intentionality which directly affects their English proficiency. In addition, engaging joint intentionality, and writing about these experiences helps establish a community of practice which is essential for sustained L2 language Development. Finally, the notion of *becoming*, an emerging theme in Human Resource Development (HRD), frames the research as a reminder that human experience is a dynamic interaction of language, research, teaching, and agency (Hanks, 2017; Lee, 2016).

**Keywords:** Joint agency, joint intentionality, English proficiency, International College

## 1. Introduction

The following paper reports on practitioner research conducted at a Thai International College that explores second language (L2) learners' classroom experiences to better understand the learning context and improve pedagogy. The research is part of a research project that dates back to 2013, and is a pedagogical effort to give students the time and space to relate the academic content their lived experiences (van Manen, 2017). The project, Praxial Interlanguage Education and Experience (PIE) is positioned as insider classroom research to better understand the local context where L2 students use English as a Medium of Instruction (EMI). In this paper, an instructional effort to develop students' joint intentional competencies (Tomasello, 2019) are explored during a semester course on Interpersonal Skills. Students were given a mindful communication task that involved students' joint agency and intentionality. In addition to selective coding, analysis was completed using Hermeneutic Phenomenology (IPA) and Exploratory Practice to integrate research, teaching, and agency (Hanks, 2017; van Manen, 2017). Moreover, the notion of *becoming*, an emerging theme in Human Resource Development (HRD), frames the research as a reminder that human experience is a dynamic interaction of language, research, teaching, and agency (Hanks, 2017; Lee, 2016).

### 1.1 Background

It can be argued that the educationalization of Second Language Acquisition (SLA) constrains the natural acquisition process by placing more importance on studying the target language rather than using it to mediate living (van Lier, 2016). The institutionalization of L2 learning has ramifications for international colleges where English is the Medium of Instruction (EMI). Whether learning English as a Second Language (ESL) or English as a Foreign Language (EFL), students' prior experiences become problematic for L2 learning. Historically, institutionalized EFL classrooms have a tendency to lack what Tomasello calls Instructional Learning (IL) that engages learners' joint agency and intentionality (Tomasello, 2019). IL as a theory of natural pedagogy emphasizes the phylogeny and ontogeny of both instruction and learning that permits learners to experientially recognize significant instruction (Ibid, 2019). Tomasello points out that in the process of enculturation, learners have a propensity to recognize what is important to learn, and what isn't important to learn. Subsequently, if students' prior L2 learning experiences lacked quality instructed learning, or what van Lier refers to as a curriculum based on Awareness, Autonomy, and Authenticity, then students may not have proper interactional skills (van Lier, 2016). This places a burden on the international institution to assure that their instructors are trained in the latest SLA theory, and their students are prepared to engage (Johnson, 2004).

## 2. Research Objectives

The objectives of this research are directly related to PIE with the following specific objectives: (i) to engage students' joint intentionality; (ii) to engage students' written literacy; and (iii) to better understand the community context.

## 3. Literature Review

English as a Medium of Instruction (EMI), is a global phenomenon typically used by local universities to internationalize their programs, but there are a number of academic concerns (Dearden, 2014). For many young *local* adults, international college is an

opportunity to become English proficient, but EMI is problematic for many reasons. A recent report on EMI indicates that teachers lack the necessary English skills and training, and that there are few educational or pedagogical guidelines (Dearden, 2014). Dearden, the main author, defines EMI as: “The use of the English language to teach academic subjects in countries or jurisdictions where the first language (L1) of the majority of the population is not English.” (Dearden, 2014, p. 2). Dearden’s report raises a number of concerns regarding the relationships between English proficiency and Academic learning, suggesting the following:

“that there is an urgent need for a research-driven approach which consults key stake-holders at a national and international level and which measures the complex processes involved in EMI and the effects of EMI both on the learning of academic subjects and on the acquisition of English proficiency” (Dearden, 2014, p. 2).

The report further states that *locally* there are shortages of qualified teachers, no stated expectations of English language proficiency, and there are few organizational or pedagogical preparation programs which may lead to effective EMI teaching and learning (Ibid, 2014). The report also indicates that these deficiencies in EMI are directly related to top-down decision making that lacks bottom-up consultation, clearly demonstrating that local educational infrastructures do not support quality EMI (Ibid, 2014). The report concludes that local institutions should be aware that there could be major consequences if students learn using an L2 rather than L1, and that efforts should be put towards using Content and Language Integrated Learning (CLIL) which improves both content and language, rather than EMI (Ibid, 2014).

### 3.1 Becoming and SLA

Cognitive approaches to SLA have traditionally placed importance on form and structure, spawning a *cottage industry* of ESL teaching based on individual cognition (Johnson, 2004). These approaches focused on native-like performance in which lessons were highly structured on form, designed for students to be *error free*, as in “repeat after me”. This eventually led to the importance of Communicative Competence, but competence from an individual perspective (Ibid, 2004). As a result, ESL activities lacked real engagement, as topics, vocabulary, and situations were determined by the teacher. This limited natural language acquisition, and actually hindered communicative competence, or skills that are crucial for language acquisition and proficiency. Even with the push towards communicative language teaching (CLT), activities viewed communication as an individual cognitive endeavor that lacked joint intentionality. Oddly, while Behaviorism, Structural Linguistics, and first generation Cognitive Science have discredited, CLT has continued to emphasize assumptions from the past; (i) erroneous input results in erroneous output; (ii) information is processed; (iii) individual acquisition can be learned.

With SLA’s traditional focus on individual cognition, the notion of *becoming* English proficient has been typically overlooked, even while unintentionally covered by educational theorists. Wenger, Norton, and Johnson who conceptualize *becoming* in the areas of *learning* and *identity*, as in *personal histories of becoming*, and the concept of *investment* (Wenger, 2018; Norton, 2013; Johnson, 2004). This can be seen with Wenger, who relates *becoming* to participation by rethinking learning with an emphasis on participation at three levels: (i) the individual level while engaging and contributing; (ii) at the community level for refining practice for new generations, and (iii) at the organizational level to sustain interconnected communities of practice (Wenger, 2018). For Norton, *becoming* can be related to *investment* and *imagined communities* which make the distinctions between historical language learners who invest for material advantage, and those who invest for the sake of their identity (Norton,

2013). In addition, Norton believes that appropriate SLA research requires poststructuralist theories of language that account for interpersonal and social variations of identity that connect to a person's ability to acculturate, and become educated or literate (Ibid, 2013). Moreover, in Johnson, *becoming* can be associated with Vygotsky's sociocultural theory (SCT) and Bakhtin's Dialogized Heteroglossia that propose a dialogical based model of second language acquisition (Johnson, 2004).

Provisionally, Vygotsky's SCT was swiftly determined to be a holistic framework for exploring second language acquisition, by allowing researchers to view the complexities of a learner's social environment (Johnson, 2004). Through SCT, teachers and students' experiences can be used to better understand the social, cultural, and institutional effects on SLA (Ibid, 2004). Subsequently, ESL teachers, academics, and theorists can participate in reshaping SLA teaching by becoming directly involved in the research process (Atkinson, 2011; Johnson, 2004). Atkinson, devotes an entire book on describing the advantages of using SCT to improve decades of outdated teaching strategies and activities that emphasize the individual with a mind like a machine (Ibid, 201). Fortunately, Vygotsky's original research has been expanded and combined with evolutionary psychology and 3<sup>rd</sup>. generation Cognitive Science (Tomasello, 2019).

### 3.2 Becoming and Joint Intentionality

Views concerning Language acquisition, either first (L1) or additional (L2) are no longer the contentious mystery they once were (Harris, 1995). Through interdisciplinary collaboration, third generation cognitive science has uncovered crucial data that has dismantled key beliefs and assumptions concerning the nature of language (Varela et al, 2016; Lakoff & Johnson, 1999). Additionally, we have a better understanding of human phylogenetic and ontogenetic characteristics that help clarify the origins of language, joint intentionality, and what it means to become human (Tomasello, 2019). While highly critical of first generation cognitive science, third generation cognitive science updates original positions, and demonstrates the holistic interdependence between thinking, language, and context (Tomasello, 2019). These breakthroughs give us a clearer understanding of how a second language can be acquired and developed. Eventually, this information can be applied to all L2 classrooms to improve teaching practices and learning, and can be extended to any environment, even organizations and institutes of learning such as International Colleges where students' success depends on language awareness. According to Ibbotson & Tomasello:

“In the new usage-based approach (which includes ideas from functional linguistics, cognitive linguistics and construction grammar), children are not born with a universal, dedicated tool for learning grammar. Instead they inherit the mental equivalent of a Swiss Army knife: a set of general-purpose tools — such as categorization, the reading of communicative intentions and analogy making, with which children build grammatical categories and rules from the language they hear around them” (Ibbotson & Tomasello, 2016, p. 74).

According to Tomasello, the reading of communicative intentions is crucial for language acquisition and development (Tomasello, 2019). To explore communicative intentions, researchers are inclined to enlist cognitive-functional linguistics which views language in a social context through functions (Tomasello, 2014). In addition, the field of pragmatics adds additional importance to context, taking into consideration the speaker, listening, and cultural aspects (Ibid, 2014).

Regardless, intentions develop ontogenetically in the act of *becoming* which characterizes human uniqueness (Tomasello, 2019). According to Tomasello, ontogeny constructs individuals, but it's our natural involvement with others in our environment, creating culture that transforms our development (Ibid, 2019). Starting from individual perspectives and roles, humans interact, involving joint goals, joint agency, simultaneous sharedness, and individuality (Ibid, 2019). Over time, through shared experiences and common ground, joint intentionality is formed, the precursor of communication, language development and acquisition. In addition, the theme *becoming* can be related to other major themes such as maturation and development, prompting students and instructors to embrace humans' phylogenetic and ontogenetic characteristics which develop into dual-level structures of joint intentional competencies and motivation (Tomasello, 2019). This implies natural motivation, produced by community, inspiring students to develop joint intentional competencies in English. Nonetheless, students new to an international community must choose their own path, and what actions will help them succeed. The notion of *becoming* also involves role reversal imitation, normative self-regulation, intersubjective engagement, all developed establishing personal common ground and shared experiences. It is towards joint intentionality that international colleges should focus L2 teaching and learning which aligns with instructional learning (Ibid, 2019).

### 3.3 Becoming & Insider Agency

As mentioned, exploring students' experiences of *becoming* English proficient, involves an emerging process, and additional HRD themes that focus on *self*, *other*, *agency*, and *structure* (Lee, 2016). *Becoming* is a state of flux in which change is a normal condition of life, but is a difficult subject to research, analyze and interpret, creating a gap between rationalistic and humanistic approaches to science (Ibid, 2016). Lee explains using Auto-ethnography to better understand the gaps, by viewing typographical polar ends between *self* & *other*, and *agency* & *structure* (Ibid, 2016). Lee grapples with the representational nature of thoughts, language, and depictions, and how individuals construe their own reality (Ibid, 2016). This condition is problematic for researchers' choice of methodology in which individual researchers must question the distinctions between epistemology and ontology (Ibid, 2016). In addition, Lee stresses the concept of *becoming*, and the importance of blending philosophy, theory, and practice with *insider* practitioner research as an "implicated participant" (Lee, 2016, p. 277).

Hanks, grapples with the same issues, and insists on the integration of research, practice, and pedagogy which is reminiscent to van Manen (Hanks, 2017). Nonetheless, Hanks deals specifically with the L2 community which spawned Exploratory Practice (Ibid, 2017). Exploratory practice is one of the first "practitioner research" that began to explore L2 classrooms (Allwright & Hanks, 2009). Allwright suggests that teachers start by trying to better understand their classrooms, and consider students as potential learning practitioners. While teachers are seen as practitioners, Allwright saw learners as practitioners too, or learning practitioners (Allwright & Hanks, 2009). He also suggests that there be a shift from prescribing what should happen in the language classroom to simply describing and understanding what is happening, or a possible shift from quantitative to qualitative research. To do this the researcher cannot ignore the social aspects of the classroom in hopes of controlling variables, when human behavior cannot be controlled. What Allwright sees are teachers "trying out their own methodological ideas and reporting descriptively on their experiences" (Allwright & Hanks, 2009, p. 114). Allwright encourages teachers to consider contributing descriptive and qualitative classroom to better understand classroom language learning by establishing essentially a social nature to classroom language learning.



## 4. Research Methodology

The choice of methodology is directly related to my experiences as a practitioner: educator, trainer, and coach, and my aspiration to include students in the research process. In addition, getting students to write is more than reporting, it is method (van Manen, 2017). In other words, the actual research process is more valuable than the outcomes. Outcomes imply an ending, but becoming and lifelong learning should continue uninterrupted. Furthermore, as an educationalist, I believe in the value of literacy, and the importance of writing as a tool for critical consciousness (Freire, 2018). Nonetheless, integrating research and pedagogy is a formidable endeavor that must be pursued if the field of education is to improve classroom pedagogy and professional development (Hanks, 2017; van Manen, 2017; Cochran-Smith & Lytle, 2009). Therefore, the choice of methodology is a construction of insider practitioner research with hermeneutic phenomenology, or what van Man, calls *Human Science for action sensitive pedagogy*, and what Hanks calls *Exploratory Practice* (van Manen, 2017; Hanks, 2017).

## 5. Results

After an introduction and reading assignment on mindful communication, students taking a course in Interpersonal Skills were asked to answer the following: (i) what is mindful communication? (ii) what is mindful speech? And (iii) what is mindful listening? In addition, students were asked to complete a 3-day task: It required students to choose a classmate, and spend three, fifteen minute sessions listening to each other talk about everyday experiences that were positive, negative, and neutral. The task included: (i) one student speaks for five minutes straight while the other only listens; (ii) another five minutes switching roles. (iii) the last five minutes have open dialogue; (iv) write about your experience.

The following student responses were chosen based on language speaking groupings. With a majority of students speaking Thai, there was no guarantee that the students planned and conducted the assignment using English. Therefore, for the purposes of this paper, I chose students whose partners didn't speak the same native language. Students volunteered the use of the papers.

Table 1: *Mindful communication: Describe your experiences.*

S#	Describe your three day experiences.
S1	<i>I really focused and thought back on my day. I paid attention to my mind and what had happened. Although there was something unpleasant and a few difficult, because I'm a kind of people that think a lot. This assignment helped me realize that I really lack mindfulness and sometimes don't pay attention to things occurred around me. This assignment help me learn to be calm and composed</i>
S2	<i>I had talked with my friend, and here are 3 day experiences. He was getting nominated for award. Second, his father visited him during weekends. He got into fight with one of his relatives.</i>
S3	<i>In a conversation, when a person is talking the other person must listen carefully and attentively, and give her full attention. By that way, I can put myself in her position and</i>

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views to understand and empathize with stories, so I can respond in the right way that she expects to be treated, and she will give it back to me.

- S4 3 Days to practice this exercise are very interesting. Although we only met and talked for 15 minutes per day, we actually talked a lot. And I also had to practice principles of mindful listening. Not being interrupted and keep silence when other is talking is really hard but gradually I get used to it, and feel I listen better than before.

**Table 2: Mindful Communication: was it positive, negative, neutral?**

S#	Would you describe these experiences as positive, negative, or neutral? Explain.
S1	<i>My positive things on these 3 days are I followed my schedule for self-study. I started and learnt to ignore other people's judgments and less thinking of my crush. The neutral things are I joined and helped my class manage an event. I seriously and mindfully set framework for teamwork of another class and spent more time for my parents. 3 negative things are my parents have an argument. I cannot stop thinking about that. And then I felt empty and pressure.</i>
S2	<i>I would describe these three experiences as positive stories for me. Because those 3 day experiences was so wonderful. I learnt something from him a lot and his story was so impressive and big congrats with him too.</i>
S3	<i>Yes, I would. I told to her about my family problems that make me feel so sad and some stories about my dog that how cute it is and how I miss it. And other experiences what have I done in the past days like I finished watching a drama in three days.</i>
S4	<i>Yes, I would. I described my positive experiences such as I learned some new English words. I was much more relaxed when doing presentation, and I went to bed and woke up late.</i>

**Table 3: Mindful Communication: is Mindful communication helpful?**

S#	Do you think mindful communication will help you not collide with others? Explain.
S1	<i>Yes, because when you practice mindful communication you learn more to really listen to someone instead of listening to give response. When you really listen which means you just understand the speaker's story and feeling, that can help you avoid conflict or unpleasant responses. In addition, when you are a speaker with mindful communication, you learn and practice being composed, thinking before talking and composing your thoughts. So you have more chance to remind yourself of what should and shouldn't be shared.</i>
S2	<i>Yes I do, based on this experience I listened to him and his story that he talked to me openly. I touch his emotion and everything that he thought. I would say that by doing the mindful communication I really know his mind and the way he see the world and that really recall me to have a good positive response back to him 😊.</i>

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- S3 *Yes, because when you communicate with other person, you need to actually listen to them, and it will help the people know that they are treasured. In addition, it helps you feel more comfortable when facing problems and you can see problems objectively. Mindful communication is a way to truly understand, connect and learn from people around us.*
- S4 *Yes, I think mindful communication will help us not collide with others in the future. Because mindful communication will enhance speaking and listening to others in a way that increase ability to understand others feelings. It also helps us think more deeply and helps us control emotions.*

## 6. Discussion and Conclusion

As noted previously, the value of this research was in the process of engaging students' joint agency and intentionality which are crucial for language development and proficiency. The first research objective, to engage students' joint intentionalities starts with joint agency, and their own perspective and role. Through joint agency students planned, negotiated, and co-constructed meanings in English. While this portion of the research was unobservable, we can reliably determine through their writings that the process involved some forms of intersubjective engagement and interactional competency (IC), such as *oral practices* or speech events (Johnson, 2004). This suggests the *co-construction* of context bound information leading to joint intentionality. Moreover, as students participated in the process, they gained valuable pragmatic knowledge in conjunction with the community norms. Through IC, *co-construction* takes place in which students create their own meanings through culturally meaningful shared experiences, producing language that is jointly created (Ibid, 2004). These examples demonstrated the development of joint intentionality. In addition, through further analysis, we can determine that students demonstrated three IC stages; discovery, observation-reflection, and construction.

Concerning the second research objective, to engage students' written literacy, this was accomplished and demonstrated in their written responses, Tables 1-3. Unlike oracy which relies on social engagement, written literacy, is a skill that requires instructed learning, and is achieved through practice. EMI students need additional time and space for writing practice, yet there is typically top-down urgency to improve students oracy over written literacy. This is understandable, but nonetheless problematic due to the *language of schooling* which is essentially different than social language (Schleppegrell, 2010). It is for this reason, and others that many educationalists suggest local international colleges switch from EMI to CLIL (Dearden, 2014). As the students' writing demonstrates, there is a significant cognitive distinction between oracy and literacy which can only be overcome through instructed literacy learning.

Finally, the research objective, to better understand the context, was accomplished through reading, coding, analyzing, and interpretation of the students' written discourse. By reading students' experiences we can glean and determine notions of *becoming* English proficient, and the important role of community enculturation. Furthermore, this process leads to the joint creation of language, or *interlanguage* which is an important stage in the development of English proficiency. Interlanguage is developed in a community where joint intentional competencies are well established. International colleges and instructors should strive to develop students' interlanguage through the process of: *other-regulation*, *partial regulation*, and *self-regulation* (Johnson, 2004). This process will help build sustainable practices that can be passed on to new generations, but only if instructors are properly trained to minimize stagnation in the language learning process (Ibid, 2004).

## 7. References

- Allwright, D., & Hanks, J. (2009). *The developing language learner*. Basingstoke, London: Palgrave Macmillan.
- Atkinson, D. (2011). *Alternative approaches to second language acquisition*. London: Routledge.
- Bentz, V. M., & Shapiro, J. J. (1998). *Mindful Inquiry in Social Research*. Thousand Oaks, CA: SAGE Publications.
- Bruton, C. (2018). *Praxial Interlanguage Education (PIE): Developing Corporate Social Responsibility in International Higher Education*.
- Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance: Practitioner research for the next generation*. New York: Teachers College.
- Dearden, J. (2014). *English as a medium of instruction - a growing global phenomenon*. British Council.
- Freire, P. (2018). *Pedagogy of the oppressed*. Burnaby, B.C.: Simon Fraser University Library.
- Hanks, J. (2017). *Exploratory practice in language teaching: Puzzling about principles and practices*. London, United Kingdom: Palgrave Macmillan.
- Harris, R. A. (1995). *The linguistics wars*. New York: Oxford University Press.
- Ibbotson, P. & Tomasello, M. (2016). *Language in a new key*.  
[https://www.academia.edu/36797796/Language\\_in\\_a\\_New\\_Key](https://www.academia.edu/36797796/Language_in_a_New_Key).  
ScientificAmerican.com
- Johnson, M. (2004). *A philosophy of second language acquisition*. New Haven: Yale University Press.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to Western thought*. New York, NY: Basic Books.
- Lier, L. V. (2016). *Interaction in the language curriculum: Awareness, autonomy and authenticity*. New York, NY: Routledge.
- Norton, B. (2013). *Identity and Language Learning: Extending the Conversation*. Blue Ridge Summit, PA: Multilingual Matters.
- Mala, D. (2017). *Bangkok Post. Enrolment drop stings universities*  
<https://www.bangkokpost.com/news/general/1266767/enrolment-drop-stings>.  
Bangkok Post Public Company Limited.
- Manen, M. V. (2017). *Researching lived experience: Human science for an action sensitive pedagogy*. New York: Routledge/Taylor and Francis.
- Schleppegrell, M. (2010). *The language of schooling: A functional linguistics perspective*. New York: Routledge.
- Tomasello, M. (2019). *Becoming human: A theory of ontogeny*. Cambridge, MA: Harvard University press.
- Tomasello, M. (2014). *The new psychology of language. cognitive and functional approaches to language structure*. New York, NY: Psychology Press.
- Varela, F. J., Rosch, E., & Thompson, E. (2016). *The embodied mind: Cognitive science and human experience*. Cambridge, MA: The MIT Press.
- Wenger, E. (2018). *Communities of practice: Learning, meaning, and identity*. Cambridge: Cambridge University Press.

## Enhancing the student performance using pair programming in HTML floating layout lesson

Thada Wangthammang<sup>1</sup>

Digital Media Program<sup>1</sup>,  
Prince of Songkla University International College,  
Prince of Songkla University  
Songkhla 90110, Thailand  
Email: [thada.w@psu.ac.th](mailto:thada.w@psu.ac.th)

### Abstract

Web design class is totally different when compared with regular programming class because of evaluation criteria. Most programming classes focus on the algorithm and practice, but a web design class concerns the students should be able to program a website for representing a user's design requirement as same as possible. My preliminary work revealed the performance of students in web design is different and the class is more tedious. To solve such problem, pair programming will be applied in the lesson of HTML floating layout. The experiment result shows that this approach can improve design quality, strengthen HTML layout skill, and reduce the gap of the students' performance. Moreover, the students feel more enjoyable significantly.

**Keywords:** pair programming; web design; HTML floating layout

### 1. Introduction

Currently, modern web design mostly used Floating, Flex, and Grid layout in order to make a website following a design requirement. Students need to conceptualize and program the web layout using those techniques. However, they should have the fundamental skill of writing HTML and CSS languages. In my class, the students should be taught to develop a modern website using a responsive approach. They were taught programming using active learning. They also have to follow the lesson gently from easy to advanced lesson using the quiz for validating how the students understand the lesson. Due to the variety of students' background, half of the student cannot follow the lesson.

Web designer requires to know how to create the website by programming. In my class, the students should be able to design and program a website using HTML and CSS properly. In my preliminary work shows that when the students learn to design a website layout using HTML and CSS, they cannot apply the CSS box model with CSS floating layout. In web development, many programmers also apply Clearfix technique for completing a user's design requirement. The Clearfix is a CSS trick that solves a persistent problem that occurs when using two floated elements are beside each other (Hoffman (2018)).

In software development, many works of literature apply a pair programming approach to transfer the knowledge from a senior programmer into a junior programmer. It takes more beneficial when compared with an individual programmer (Cockburn and Williams (2001)). Moreover, many academic studies also applied the pair programming approach in teaching and the result show that it can improve the learning ability of the students (McDowell et al. (2002)).

To solve the various comprehension problem of students, this research aims to improve the performance of the students and reduce a gap of the student performance by using pair programming approach.

### 2. Research Objectives

Apply a pair programming approach to enhance student performance in case of HTML Layout lesson in order to reduce a gap of student ability.

### **3. Literature Review**

Pair or collaborative programming is an approach where two programmers working side by side at one computer at the same time. It is mostly applied in two various fields; the software development, and academic purposes.

#### **3.1 Software Development**

In software development, pair programming approach is applied in many researches (Williamset al. (2000); Nosek (1998); Williams and Kessler (2000)). The research result shows such an approach can get more benefits than an individual programmer and improve the performance of programmers.

The study of Cockburn and others (Cockburn and Williams (2001)) shows pair programming will increase the cost of development time about 15% when compared with an individual programmer. However, they found that pair programming improves design quality, strengthen technical skill, improves team communication, reduces code defects and reduces staffing risk. Moreover, it can increase programmers' satisfaction and enjoyment significantly.

#### **3.2 Academic Purposes**

Pair programming also has been applied in the university courses, it uses students in experiments (McDowell et al. (2002); Williams et al. (2000); McDowell et al. (2006)). They show that pair programming can make in-class activities to be more effective and beneficial.

McDowell et al. (2002) use about 600 students in their experiment for comparing the effect of pair programming between individual and pair programming in order to complete their assignments. The result shows the students who programmed in pairs can achieve better programs and they also performed their final exam better than students who programmed individually

Finally, pair programming is not a new approach for academic purposes. The literature does not focus on pair programming in term of web development and design, however, they mostly focus on solving the problem by programming. This research involves applying the pair programming approach in a web programming course at the university in order to improve the performance of the students. It also focuses on HTML layout programming using floating layout and Clearfix technique which is mostly applied widely in website development (Hoffman(2018))

### **4. Research Methodology**

The research involves students who are learning in a responsive web design course, Digital Media program of Prince of Songkla University International College. The students should be able to create website applying CSS box model with a floating layout and Clearfix technique properly. However, my preliminary work had been set up an experiment with 7 students class which the students are enrolling for such course. All students were tested without allowing to discuss to each other . The students would be received the quiz in Figure 1.



Figure 1: The screenshot of web design using in the quiz which applying Kanit font and its content (Kanit (2019))

The quiz result shows that the average score of this quiz is around 50% of maximum score and some students could not achieve this quiz which is a fundamental of web design. In order to improve their performance and score, the experiment has been set up using pair programming approach by grouping the higher score and lower score students in same pair group. The rest student is pairing with the lecturer.

In the experiment process, the class activity will be following active learning and pair programming approach. The lecturer will teach and ask the question to students individually. The aim of the class activity is the students should be able to achieve a better score in the same quiz. The activity procedures are list below:

1. Each student will be assigned a drawing activity by sketching a wireframe of quiz screenshot is shown in Figure 2. The student should be able to conceptualize and draw the quiz screenshot into a wireframe. The quiz has three layouts hidden in the screenshot. The dashed rectangle in Figure 2 represents a layout. The regular rectangle represents a floating element.
2. The pair of students will be assigned to program a website following the quiz screenshot. The lower score student needs to control his computer for programming, then the higher score student needs to discuss with the lower student to complete the question without touching his teammate computer. However, the lecturer will guide during this activity.

Finally, the experiment will be performing in the next class, the student will be performed the quiz which the same quiz as the preliminary work, however, the student do not know the quiz before.

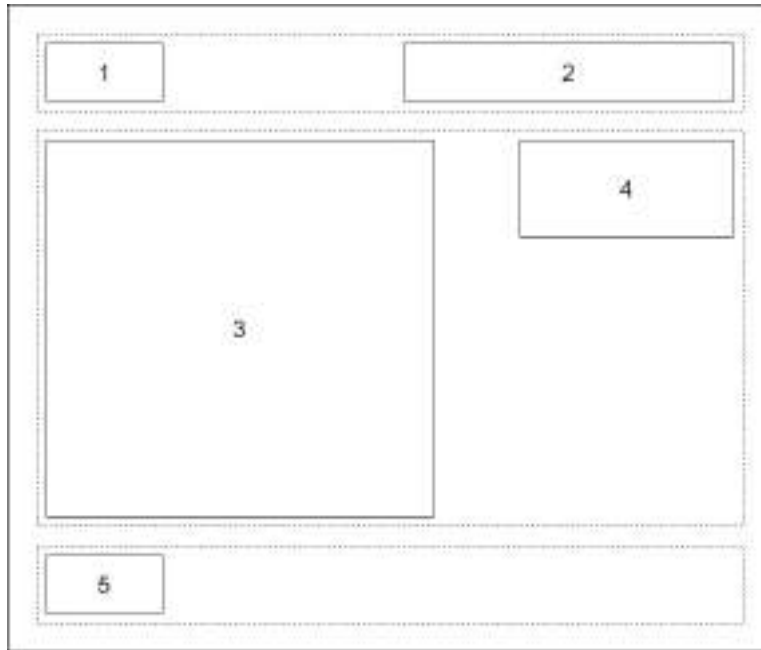


Figure 2: The screenshot of web design using in the quiz

## 5. Results

Experiment results are divided into two parts. First, the experiment is set without using pair programming technique. Second, the experiment is tested after applying pair programming are shown in Figure 3. The experiment has three criteria which are following below:

1. The student should be able to write and design HTML code properly.
2. The student should be able to write CSS code in order to work with HTML properly.
3. The student should be able to apply CSS floating layout using Clearfix technique.

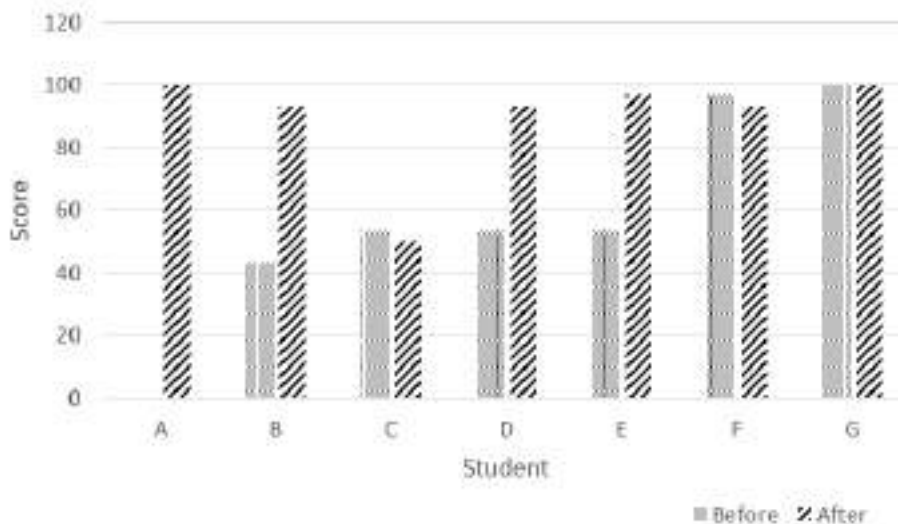


Figure 3: The comparison of the score between before and after applying the pair programming

The results in Figure 3 shows that pair programming approach can improve the student score. The score is calculated by the given criteria. Each criterion is counted equally. The experiment result shows that pair programming can reduce the gap of student performance, enhance design quality and improve HTML layout skill.

Moreover, better activity should be more happy and enjoyable in order to encourage the students more enthusiastic to learn. The experiment also concerns the happiness level of students in the course



by reflecting themselves. Figure 4 shows the reflection of the average happiness level between before and after applying pair programming. The results show the students feel more happy and enjoyable.

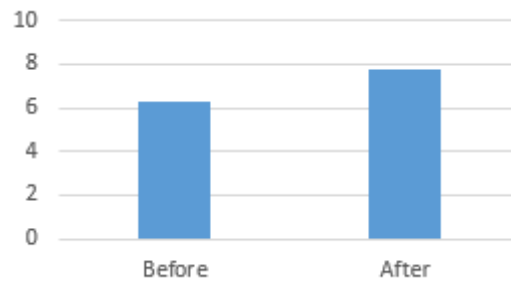


Figure 4: Comparison of reflection of happiness level between before and after applying pair programming

## 6. Discussion and Conclusion

This paper applies a pair programming approach in order to reduce the gap of student performance in web programming. This research focuses on HTML floating layout applying with the Clearfix technique and the HTML code should represent the user’s design requirement as much as possible. The experiment result shows that pair programming can improve design quality, strengthen HTML layout skill, and reduce the gap of the student performance. This experiment also shows that students feel more enjoyable when learning with pair programming in the responsive web design course.

Although pair programming is widely applied in various fields of programming, it is still more beneficial and useful when applying pair programming in web design. Moreover, the issue of teaching web design using HTML and CSS for representing the user’s design requirement will be more challenge. This method should be applied with the bigger test set in order to get more reliable.

## 8. References

- Cockburn, A. and Williams, L. (2001). Extreme programming examined. In Succi, G. And Marchesi, M., editors, *Extreme Programming Examined*, chapter The Costs and Benefits of Pair Programming, pages 223–243. Addison-Wesley Longman Publishing Co., Inc., Boston, MA, USA.
- Hoffman, J. (2018). Clearfix: A Lesson in Web Development Evolution. <https://css-tricks.com/clearfix-a-lesson-in-web-development-evolution/>.
- Kanit (2019). Google Fonts. <https://fonts.google.com/specimen/Kanit>.
- McDowell, C., Werner, L., Bullock, H., and Fernald, J. (2002). The effects of pair-programming on performance in an introductory programming course. In *ACM SIGCSE Bulletin*, volume 34, pages 38–42. ACM.
- McDowell, C., Werner, L., Bullock, H. E., and Fernald, J. (2006). Pair programming improves student retention, confidence, and program quality. *Communications of the ACM*, 49(8):90–95.
- Nosek, J. T. (1998). The case for collaborative programming. *Communications of the ACM*, 41(3):105–108.
- Williams, L., Kessler, R., Cunningham, W., and Jeffries, R. (2000). Strengthening the case for pair programming. *IEEE Software*, 17(4):19–25.
- Williams, L. A. and Kessler, R. R. (2000). The collaborative software process. In *International Conference on Software Engineering 2000*. The University of Utah. Online at <http://www.cs.utah.edu/~lwilliam/Papers/ICSE.pdf>.

## **The Educational Opportunities and Difficulties of Migrant Children in Thailand: A Case Study of Migrant Children from Myanmar in Koh Siray, Phuket**

**Apitchaya Puapan<sup>1</sup> and Nuannut Khieowan<sup>2</sup>**

Student in Thai Studies Program<sup>1</sup>  
Faculty of International Studies, Prince of Songkla University,  
Phuket Campus, Thailand  
Email: apit\_bow@hotmail.com  
Ph.D. Lecturer in Social psychology and Thai Studies Program<sup>2</sup>  
Faculty of International Studies, Prince of Songkla University,  
Phuket Campus, Thailand  
Email: nuannut.k@phuket.psu.ac.th

### **Abstract**

This research aims to study the educational opportunities and difficulties in accessing education in Thailand for migrant children from Myanmar, focusing on migrants from the Koh Siray area, Phuket province. The patterns of educational opportunities and difficulties were explored through unstructured interviews with teachers, parents, students and alumni from two learning centers managed by Christian charity foundations in the area. The study found four patterns of educational opportunities: studying in the Thai educational system, studying in the Myanmar educational system, studying at learning centers managed by NGOs and no education. The educational opportunities were mainly provided for migrant children in Thailand by the Christian charity foundations located in the Koh Siray area. The study also found four patterns of difficulties to access education in Thailand: migrant parents and children's values, financial problems, language and communication and attitudes towards and acceptance of Thai society.

**Keywords:** Migrants from Myanmar; Migration in Thailand; Educational Opportunities

### **1. Introduction**

Education is one of the most important factors in regard to the well-being of migrants. Migrants with higher education tend to have more contact with the host country and, therefore, adjust better than those with no or lower education (Phinney et al., 2006) According to the United Nations Human Rights Office of the High Commissioner (2019), host countries must provide free primary education for all migrant children. The Thai government is a partner of the Convention on the Rights of the Child, which aims to improve the living conditions of children in every country. The government of Thailand, however, has no clear guidelines on accessing education for migrant children (Institute for Population and Social Research, 2014) although the number of migrant laborers and their children has been increasing. Consequently, it is important to study the educational opportunities and difficulties of migrant children in Thailand. The result of the study could be helpful in terms the education and well-being of migrants in Thailand.

According to Khieowan (2017), Koh Siray is the largest communities where migrants from Myanmar reside in Phuket, which is one of the most important province in Thailand for tourism, the economy and migration. The area is a good example of a place where educational opportunities and difficulties of migrant children from Myanmar can be explored.

## **2. Research Objectives**

2.1 To identify patterns the educational opportunities of migrant children from Myanmar in the Koh Siray area, Phuket

2.2 To explore the difficulties to access education for migrant children from Myanmar in the Koh Siray area, Phuket

## **3. Literature Review**

### **3.1 Convention on the Rights of the Child (CRC)**

According to the United Nations Human Rights Office of the High Commissioner (2019), state parties must follow the convention on the rights of the child article 28 as follows.

1. The right of child education must be recognized by the state parties. In achieving the right progressively, and on the basis of equal opportunity, the following issues must be followed.

(a) Make primary education compulsory and available free to all;

(b) Encourage the development of different forms of secondary education, including general and vocational education, make them available and accessible to every child, and take appropriate measures such as the introduction of free education and offering financial assistance in cases of need;

(c) Make higher education accessible to all on the basis of capacity by every appropriate means;

(d) Make educational and vocational information and guidance available and accessible to all children;

(e) Take measures to encourage regular attendance at schools and the reduction of drop-out rates.

2. States parties must take all appropriate measures to ensure that school discipline is administered in a manner consistent with the child's human dignity and in conformity with the present convention.

3. States parties must promote and encourage international cooperation in matters relating to education, in particular with a view to contributing to the elimination of ignorance and illiteracy throughout the world and facilitating access to scientific and technical knowledge and modern teaching methods. In this regard, particular account shall be taken of the needs of developing countries.

### **3.2 Educational opportunities of migrant children**

According to the Global Education Monitoring Report by the United Nations (2019), there are seven ways in which the global educational commitment for migrant children should be achieved as follows:

1. Protect migrant children's right to be able to access education, for example, do not let ID document or residence status block school enrolment. Do not let schools make additional conditions.

2. Include migrant children in national systems

3. Respond to migrant children needs, for example, provide them language and other facilitating programs, help them to overcome financial barriers.

4. Recognize migrant children's history, for example, respect their past history and current diversity.

5. Prepare teachers teaching migrant children, for example, train them to deal with diversity, confront stereotypes and discrimination.

6. Harness migrant potential, for example, reform institutions to accept qualifications earned all over the world.

7. Reform humanitarian or development aid for migrant children, for example, co-ordinate with humanitarian and development actors to provide predictable, multi-year funding.

## **4. Research Methodology**

### **4.1 Recruitment of Participants and collection of data**

The unstructured in-depth interviews were conducted with teachers, parents, student and alumni from two schools for migrant children in June 2018 in the Koh Siray Area of Phuket province. Snowball sampling was used to recruit the participants. The recruitment of participants started at a school for migrant children ran by an NGO Christian charity foundation that works with disadvantaged children. There were 44 students, 16 females and 28 males, at the school. The foundation teaches legal “Non-Thai citizen” migrant students aged 4-13. The school focuses on teaching Thai, Burmese and English to children from Myanmar. Students also learn social sciences and science at the school. Another NGO Christian charity foundation was identified by the first foundation. The second foundation also works on educational support for minority children including migrant children from Myanmar, who are the majority of the students at the school. There were 160 students who are both legal and illegal “Non-Thai citizens” at the school. Teachers, students, alumni and parents from the two foundations were interviewed.

The patterns of educational opportunities and difficulties were explored through unstructured interviews with teachers, parents, students and alumni from two learning centers managed by Christian charity foundations in the area.

### **4.2 Analysis of data**

The research was based on a constructivism paradigm using a qualitative research methodology. The researchers aim to discover patterns of educational opportunities and difficulties in accessing education for migrant children from Myanmar; therefore, a qualitative analysis was used. The data were collected and analyzed to enable the researchers to identify the patterns of opportunities and difficulties for migrant children from Myanmar in accessing education in Thailand.

## **5. Results**

### **5.1 Educational patterns of migrant children from Myanmar in Koh Siray area**

The study found four educational patterns in regard to the migrant children from Myanmar in the Koh Siray area; study in the Thai educational system, study in the Myanmar educational system, study at learning centers and no education.

#### **5.1.1 Study in the Thai educational system**

This type of educational pattern is based on the educational system of Thailand. The study found three patterns of opportunity in which migrant children from Myanmar are involved in the Thai educational system. They (1) study in government schools (2) study in private schools and (3) study in non-formal and informal education

### **1) Government schools**

Migrant children from Myanmar attend primary school at Koh Siray school located in Koh Siray area. The school is open from kindergarten to Matayom 3 (secondary school). Students from Myanmar are entitled to equal education as Thai students. In most cases, the students apply to the school with the help of Christian charity foundations after finishing the kindergarten level at the learning centers managed by the foundations.

According to a teacher who teaches at a foundation *“We send children to study in Thai schools, starting from primary 1, when children reach the age of about 7 years old or when children are able to read the Thai alphabet, and understand the Thai language. We send them to Koh Siray school because we are located in the same area. Both children and their parents need to be legal migrants, and they must have complete documents because the government is really strict.”*

According to a student who is studying at Koh Siray school and used to study at the foundation, *“Before I studied here, I studied at the foundation. We get 15 years free education, the same as Thai students. If we finish Matthayom 6, we can apply for Thai citizenship.”*

### **2) Private schools**

The study found that a private school in Phuket allows migrant children from Myanmar to study. It is a Catholic school located in Phuket town and is open from kindergarten to secondary level. According to a student from Myanmar attending Matthayom 2 at this private school, migrant children could access the private school with the support of a Christian charity foundation, *“I was born in Ranong province. My mother is Mon and my father is from Dawei. I have been studying here since Prathomsuksa (primary school) with the help of the foundation because both my school and the foundation are Christian. The foundation gives me a scholarship; they pay half of my tuition fee. My cousin has also studied here with the help of the foundation since kindergarten.”*

### **3) Non-formal and Informal education**

The study found that some migrant children from Myanmar study in provincial non-formal and informal education in Phuket. This also results from the suggestions and help of teachers from the Christian charity foundation. A 15-year-old student from Myanmar who is studying at the institute said that *“I am Mon. I used to study at Koh Siray school, but I resigned from the school because I needed to work in the day time. So, my teacher at the learning center suggested that I study here because I can study after work. The institute accepts migrants from Myanmar to study if we have all of the required documents”*

In conclusion, the study found that migrant children from Myanmar are able to study in Thailand's educational system in three ways: government schools, private schools and non-formal and informal education. The children are required to have a 13 digit Thai identity number to apply to schools in Thailand. They are entitled to basic education like Thai children without any fees. This is in accordance with Thai law, which requires all children to receive free education for 15 years regardless of their status or nationality and in keeping with the international human rights framework.

### 5.1.2 Study in Myanmar educational system

It was found that some of the young migrants from Myanmar returned to study in Myanmar because their parents saw the importance of learning the Myanmar language more than the Thai language. Many migrants from Myanmar do not plan to migrate to Thailand permanently. In addition, some parents with very young children do not have time to take care of their children and therefore send them to their grandparents to help take care of them. According to a teacher at a foundation *“Some children studying at the center here will move back to Myanmar with their parents. Some of them have their own needs to send their children back home.”* Another teacher at another foundation said that *“Most of the children aged 5-6 years old studying here will return to study in Myanmar. They return to live with their grandparents. Their parents will work here.”*

### 5.1.3 Study at learning centers managed by NGOs

The study found that two Christian charity foundations which are Non-Government Organizations (NGOs) were the most influential organizations for migrant children from Myanmar in terms of educational support. The foundations organize fundamental education for minority children e.g. Thai ethnic minorities and migrant children from Myanmar. The main objectives of the organizations are to develop the children life quality and the Thai, Burmese and English language skills of students.

According to a teacher at one of the foundations, *“There are 160 students here. Their parents work in the fishery, trading and laborer sectors. The parents want their children to study here because they need the school to take care of their children in the day time. In terms of our curriculum, we teach Burmese, Thai and English language. We mostly focus on Burmese language. We use textbooks and curriculums from Myanmar which are taught by volunteers from Myanmar. Thai volunteers and teachers focus on the Thai language. We do not follow the Thai curriculum because we just want them to be able to have some basic understanding of the Thai language.”*

According to a teacher at another foundation, *“There are 44 students at this school. We accept students aged from 4 to 15 years old. At Prathom 1, students will start to learn with a Thai curriculum textbook.”*

### 5.1.4 No education

The study found that some migrant children had no education or had already dropped out from school. This may have been with parental consent or low understanding about the importance of education. In some cases, the children themselves did not want to study.

According to a migrant child from Myanmar who had dropped out from the school, *“Most of my friends do not want to continue study after Prathom 6. We just want to work.”*

According to a teacher at a foundation in Koh Siray area, *“The main reason parents do not want their children to continue their education at a Thai school is they only want them to learn a Myanmar curriculum. For those who don't let their children attend class at the center, it is because they just want their young children to stay home with them. Some of them do not have information about us. For older children, some parents want them to work rather than going to school.”*

## 5.2 Education of migrant children from Myanmar in the Koh Siray area: Opportunities and Difficulties

### 5.2.1 Opportunities

The study found that migrant children from Myanmar in the Koh Siray area had great opportunities to access education in Thailand. This finding is consistent with the Convention on the Rights of the Child article

28 which states that all state parties need to recognize the right of the child to education by making primary education available and free to all. It was found in the study that Koh Siray school was very accessible for migrant children from Myanmar in the area. The school was a public school granting free education for migrant children for 15 years, which is in accordance with government policies.

It was found that in the Koh Siray area, Christian NGO foundations played the most important role in bringing migrant children from Myanmar to Thai education. The foundation had both a role as a learning center and in helping migrant children to access the Thai educational system, including public schools, private schools and provincial non-formal and informal education. Teachers not only teach in the center but advise and guide students to apply to those schools.

As private schools have a relatively high cost, the study found few migrant children from Myanmar attend a private Christian school in Phuket. The children were also introduced and taken to apply at this school by an NGO foundation in the Koh Siray area. They were granted scholarships by the foundation as well.

### 5.2.2 Difficulties

Although migrant children from Myanmar in the Koh Siray area had a tremendous opportunity to access primary education, the study found some difficulties obstructing them from accessing education including parents and children's values, financial problems, language and communication problems and relations with Thai people.

#### 1) Parents and children's values

Values in regard to work and social status affected the educational opportunities of migrant children from Myanmar. This study found that many migrant parents and children from Myanmar rejected education even though the opportunity was available. They preferred working to going to school. This finding is consistent with Khieowan (2017) who found that migrants from Myanmar in Phuket mostly held "separated" acculturation strategies due to their goal to temporarily migrate, work and remit income back home. According to an interview of a migrant child aged 15 years old who was studying in Phuket provincial non-formal and informal education, *"Some of my friends had to quit school for labor work. My parents also asked me to quit school to work but I didn't want to so I asked for help from the foundation. Teachers helped talking to my parents so they allowed me to continue my education. I was granted free education when I was in Koh Siray school. I want to study until graduating from university"*

Many migrants from Myanmar sent their young children to stay with their grandparents in Myanmar and asked them to migrate when they were ready to work at the age of around 13-15 years old. Some migrant children prefer working to going to school because they value working and their income as a symbol of their gratitude to their parents. A 10-year-old boy migrant from Myanmar who is now a student at Koh Siray school was interviewed. He said *"I have not studied in Prathom 4. I would like to study until Matthayom 3. By that time, I will be able to work and give part of my income to my parents."* A 9-year-old girl from the same school also made a similar point: *"I would like to finish Matthayom 3 because I will have enough knowledge to gain some incomes from my mother."*

## 2) Financial problems

Although financial problems seem to be solved by providing free education for all migrant children, the problems still exist in the Koh Siray area. This is because there are still some expenses that parents need to meet for school, for example, transportation, pocket money, school and class activities etc. A girl migrant from Myanmar studying at a private school in Phuket said that *“Although I don’t have to pay the tuition fee at school, I always need to pay for group work activities in class. Sometimes I don’t really have money to share with my friends. When I was younger, I had a very hard time because my friends didn’t understand me. Now I am old enough to explain to my friends that I don’t have money but I will do more work in the group. Some friends don’t understand it but my best friend understands me and always helps me.”* Another girl said that *“I use my grade to apply for some grants from my school. The Christian charity foundation in Koh Siray also helped by granting scholarships. My parent’s income is not enough to pay for my tuition fee.”* In addition, allowing older migrant children to attend school can also lower family income because these children are old enough to support their family. A boy from Myanmar studying at Koh Siray school said *“My cousin wanted to go to school but his parents asked him to quit from school because they needed him to help earning more income for their family.”*

## 3) Language and communication

This study found that language and communication were only a small barrier in accessing education. The Myanmar community in Koh Siray is a large community. Migrants have very close kinship relationships and support each other in their work, lives and also their children’s education. Migrants from Myanmar receive information about schools from their kin or friends. The two Christian charity foundations also play an important role in linking migrants to education by helping them and giving them advice about education. Both foundations serve as a Thai language preparation school for Myanmar students who want to attend Thai schools. A teacher working at a foundation said in an interview that *“We will go out to meet disadvantaged communities, both migrants and Thai people, at least once a week. Sometimes we visit our students’ families. Getting out into the communities makes us known to the migrants from Myanmar. Conversely, it makes us know about children’s problems and helps in solving them.”* A teacher from another foundation said during an interview that *“After the children have finished at our learning center, if parents want their children to apply to a Thai school, we will take them to apply at Koh Siray schools. The children have learned the Thai language from us. They won’t have a language barrier at Thai schools.”* Moreover, the study found that some migrant children can only speak Thai because they were born and grew up in Thailand, go to Thai schools and their parents want them to assimilate into Thai culture.

## 4) Attitude and acceptance of Thai society

Another obstacle preventing migrant children from Myanmar accessing education was the attitude and acceptance of Thai society. The study found that despite full accessibility to education in Thailand according to the Convention on the Rights of the Child article 28, migrant children from Myanmar were found to be studying only in certain Thai schools. The most popular school for migrants from Myanmar in Phuket was Koh Siray school. It is a school situated at the heart of a Thai ethnic minority, Urak Lawoi village and a Myanmar community. The research was also found the limitations of the linkage between the two Christian charity foundations and other public schools in Phuket. According to a parent, *“I don’t think there are migrant children from Myanmar in other schools in Phuket. There might be some half-blood Myanmar-Thai. The reason we send our children to Koh Siray school is because we are sure that our children are accepted there.”*

In addition, the study found that migrant children from Myanmar who attended Christian private school with the support of a Christian charity foundation had faced discrimination from both Thai teachers and students. For example, a 14-year-old girl studying in a private said that, *“When I was in Prathom level education and was new to the school, the teacher laughed and asked why don’t I have a last name like Thai*



*people. I had a very hard time trying to pay attention in class and participate in many activities at school to make Thai friends accept me. Now, everything has become much better.”* A 9-year-old boy attending Koh Siray school mentioned in an interview that *“Thai friends teased me about my parent’s names. I was also insulted by friends saying ‘Go back to Myanmar. Don’t come to Thailand.’ Thai people do not welcome people from Myanmar.”*

## 6. Conclusion and discussion

The study found four patterns of educational opportunities: study in the Thai educational system, study in Myanmar educational system, study at learning centers managed by NGOs and no education. The Christian charity foundations located in Koh Siray area provided the link between the migrant children and educational opportunities. The study also found four patterns of difficulties in accessing education in Thailand including parents and children’s values, financial problems, language and communication and the attitudes and acceptance of Thai society.

When comparing the results of this research with the Convention on the Rights of the Child (CRC), it was found that the Thai government has followed article 28 (the United Nations Human Rights Office of the High Commissioner, 2019) by providing full opportunities for migrant children from Myanmar to access the Thai educational system. Migrant children from Myanmar, however, need to use an ID document to apply to schools. This can be seen as an obstructive requirement according to the Global Education Monitoring Report (United Nations, 2019). The study also revealed the importance of organizations working closely with migrants in helping them to access education in Thailand. Limitations of educational accessibility for migrant children are still evident mainly due to the cooperation of Thai schools, the understanding of Thai people and the need for migrants from Myanmar. These difficulties could be solved by employing the seven ways reported by the Global Education Monitoring Report by the United Nations (2019).

## 7. References

- Institute for population and social research. (2014). *Migrant’s children education in Thailand*. Mahidol University, Asian Institute of Technology (AIT).
- Khieowan, N. (2017). *Factors contributing to adjustment of migrants from Myanmar: A case study in Phuket*. Ph.D thesis, Universiti Sains Malaysia, Malaysia.
- Phinney, J. S., Berry, J. W., Sam, D. L., & Vedder, P. (2006). *Understanding immigrant youth: conclusions and implications*. In J. W. Berry, J. S. Phinney, D. L. Sam, & P. Vedder (Eds.), *Immigrant youth in cultural transition: acculturation, identity, and adaptation across natinal contexts*. Mahwah, New Jersey: Lawrence erlbaum associates.
- United nation educational, scientific and cultural organization. (2019). *Migrant, displacement and education: building bridge not wall*. Retrieved May, 2019 from <https://en.unesco.org/gem-report/>
- United nation human right office of the high commissioner. (2019). *Convention on the right of the child*. Retrieved April, 2019 from <https://www.ohchr.org>

## **China's agricultural development and transformation under the restriction of resources and environment**

**FEI LU**

Business Administration Program  
Burapha University International College  
Chonburi 20131, Thailand  
Email: buuiclufei@gmail.com

### **Abstract:**

As a large nation with heavy population and is relatively lacking of per capita resources, the resources and environmental constraints for its agricultural development are more obvious. The meaning of, using "two-oriented society" construction as the oriented goal to accelerate the transformation of agricultural development, construct the new agricultural development model of "low input, low energy consumption, low pollution, high output", and to ensure the national food security, environmental protection, resource conservation, farmers' income increase, agricultural efficiency and other multiple strategic objectives that aim to achieve the sustainable development of the national economy, seems particularly important and urgent. In the context of a new round of great global agricultural modernization change, which are featured of knowledge, information, ecology, internationalization and diversification, this article uses multi-objective orientation of China's agricultural development mode changes that are under the dual constraints of resource and environment as the logical starting point of the study, to investigate around the key issues such as, resources and environment constraints status quo that China 's agriculture development is facing; Composition and Structure of China's Multi-objective Agricultural Development, and China 's Multi-objective Orientation Agricultural Transformation Decision that under Resource and Environment Constraints.

**Keywords:** Resources and Environment Constraints; Multi-Objective Orientation;  
China's Agricultural Development Transformation

In the course of the development of human society, the transformation of each mode of development is manifested as a new sign of economic development and progress of human civilization, which is the internal driving force of economic structural change. As a large nation with heavy population and is relatively lacking of per capita resources, the meaning of using "two-oriented society" construction as the goal-oriented to accelerate the transformation of agricultural development, construct the new agricultural development model of "low input, low energy consumption, low pollution, high output", and to ensure the national food security, environmental protection, resource conservation, farmers' income increase, agricultural efficiency and other multiple strategic objectives that aim to achieve the sustainable development of the national economy, seems particularly important and urgent.

### **I. The Historical Process of China's Agricultural Development and Transformation since the Founding of PRC.**

After 30 years of reform and opening up, Chinese agricultural development has made brilliant achievements. And it has been speeding up along the path of modernization after a comprehensive solution to the problem of food and clothing. In different historical stages, China's agriculture has shown unique characteristics at different stage in terms of the mode of production, mode of operation and other aspects. Overall, this dynamic process can be divided into three stages.

#### **The First Stage-- From the Early Days of Reform and Opening To 1978**

This stage is a time period of a comprehensive transition to the collectivism and establishment of rural collective ownership. As the country had just been established, the socialist economic system had not yet fully

formed, the national agricultural development policy was unstable, and the overall agricultural development was in the recovery period. This period had undergone four periods: land reform and agricultural production recovery, socialist transformation and stable development of agriculture, people's commune and agricultural production violent volatility, the "Cultural Revolution" and the low growth of agricultural production. In the case of the planned economic composition was in the dominant situation, in order to pursue the speed, yield, and to solve the problem of eating and drinking as soon as possible, the central government mainly emphasize on improvement of production methods. Despite the policy instability, but with the water conservancy, farmland, agricultural and other agricultural infrastructure construction, agricultural production had made progress, rural productivity had been a greater liberation, agricultural scale had been expanded, the total grain output increased from 113 million tons in 1949 (Huang, 1992) to more than 300 million tons (Yang, 2001). Agriculture was in the ups and downs of development and had accumulated experience and lessons for China's agricultural development after the reform and opening up.

### The Second Stage —From Reform and Opening In 1978 To Joining The WTO In 2001

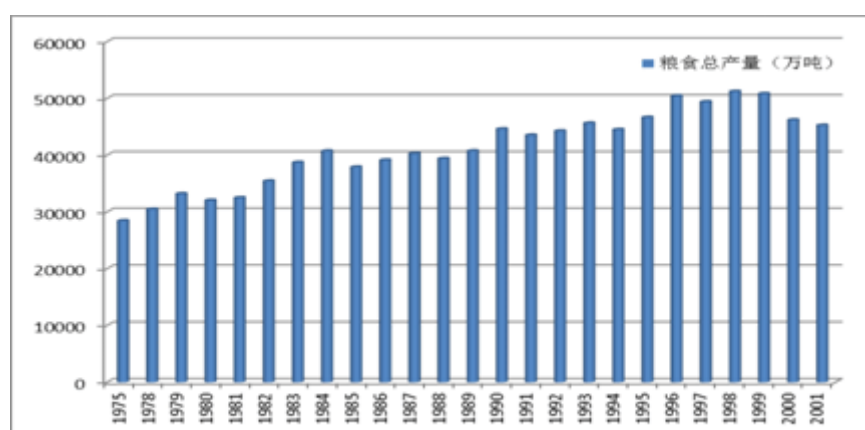


Figure 2-1. Overall grain output in china from 1975-2001(*China Rural Statistical Yearbook, 1975 – 2001*)

This stage, Chinese agriculture was in comprehensive transition period from planned economy agriculture to market economy. The main features of this stages were that the household contract system fundamentally shook the foundation of the existence of the people's commune system, the rural productive forces had been greatly liberated, the potential energy of the long-term savings of agricultural infrastructure could be released, agriculture developed steadily, the overall grain output was on the rise ( See Figure 2-1), the agricultural economy gradually shifted from the production mode to the business-oriented, agriculture accelerated towards the commercialization, market-oriented direction. With the deepening of rural economic system reform, china had explored a series of agricultural market reform, such as promoting the reform of agricultural products circulation system, strengthening the macro regulation of grain market, establishing and perfecting central and local grain reserve system, promoting the construction of agricultural product market system. The regional market of agricultural products had been set up, the degree of agricultural marketization had been improved rapidly. The market mechanism had played an increasingly important role in the allocation of agricultural resources, which had promoted the marketization of agricultural products, the industrialization of agricultural development and the socialization of agricultural services.

### The third stage – from joining WTO in 2001 to present

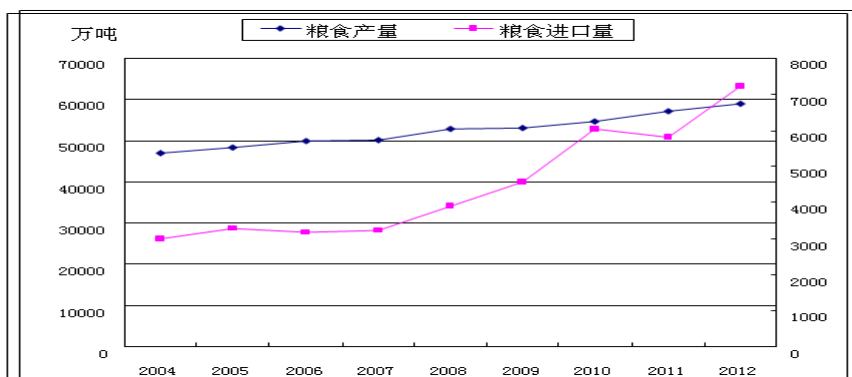


Figure 2-2. Overall grain output in china from 2004-2012 (China Rural Statistical Yearbook, 2004 – 2012)



Figure 2-3. Overall grain output in china from 2014-2018 (China Rural Statistical Yearbook, 2014-2018)

This stage, agriculture is at the new stage of transformation towards globalization, modernization. China's agricultural development has undergone profound and extensive changes, the highlighting characteristics are that under the impact of globalization, China's agricultural development has transformed from decentralized to centralized and with its capital and technical elements continue to improve. China's agricultural development has entered into the modern agriculture development stage featuring management marketization, globalization and production informatization. On the whole, during this period, China's agricultural development began to transition from closed state to a competitive and open state, the marketization process of agricultural production accelerated, the dependence of agricultural products from self-sufficiency to foreign trade increased; the scale of agricultural development increased steadily, the basic agricultural infrastructure and facilities rapidly developed. Especially since 2003, there had been a nine consecutive years of agricultural harvest (see Figure 2-2), which is of the best period in history, and this trend also continued until 2018, when the total grain output reached its maximum at 661,610,000 ton in 2017 (Statistical Bulletin of Chinese National Economic and Social Development, 2018). However, the share of agriculture in the national economy is declining, and the share of primary industry in GDP declined from 15.1% in 2000 to 10.2% in 2010 (China Rural Statistical Yearbook, 2011), and it reached a historical low at 7.5% in 2018 (Statistical Bulletin of Chinese National Economic and Social Development, 2018). The agricultural structure changed from the single grain structure to a diversified product structure, and agriculture development became more and more dependent on capital and technology, in 2008 China's comprehensive agricultural modernization level is about 38% of developed countries' average (He, 2012), the supply and demand of the main agricultural products is still very tight, and the number of the important agricultural products import continue to rise (see Figure 2- 2). At the same time, the resources and environmental constraints of China's agricultural development are becoming more and more obvious, the agricultural resource crisis is becoming more and more serious, and the ecological environment is deteriorating, which becomes a new problem that needs urgent attention and solution (He, Lou & Kong, 2012).

## **II. Pressure Of China's Agricultural Resources Under Resource And Environment Constraints**

China is not only a large agricultural country with a large population, but also the largest developing country. Industrialization and urbanization is still in the process of pursuing the developed countries, agricultural development has not yet fundamentally realized modern transformation, and its consumption and impact on resources are enormous. Therefore, China's agricultural development is under more obvious resource pressure than the developed countries. As the scholars say, the developed countries are faced with resource and environment constraints after the modernization of agriculture, but China is facing this pressure in the process of modern agricultural transformation, and the pressure is more significant than the developed countries.

### **Human Resources**

Human resources is the primary agricultural resources for agricultural development, and human capital is the internal elements that more important than resources and capital. Since 2010, the total population of China's rural areas dropped from 671.13 million to 589.73 million in 2017, and the percentage that rural population accounted for total national population dropped from 50.05% in 2010 to 41.48% in 2017 (China Rural Statistical Yearbook, 2011 & 2018). The rural labor force dropped from 414.18 million to 314.18 million, the percentage it accounting for the national population declined from 30.89% in 2010 to 22.3% in 2017 (China Rural Statistical Yearbook, 2011 & 2018). Regarding to the literacy level, the literacy level of rural labor force is only 5.73%; population with education level at junior high school (including under) accounted for 82.61%; the labor population that engaged in primary industry accounted for the total number of 67.4% (China Rural Statistical Yearbook, 2018). Whether it is the overall quality or practitioners' structure, and there still remain big gaps from the agricultural modernization requirements. At the same time, with the accelerating urbanization, the "economic "scissors" between China's urban and rural areas has shifted into "human resources scissors", and it has been an irreversible trend for a large number of rural labor entering into the city. In 2017, China's urbanization rate exceeded 50%, reaching 58.52% (Niu, 2017). Rural migrant workers were more than 286 million in 2017, and its rate of shrinking is at an equivalent speed of disappearing 20 administrative villages every day (Guangming Daily, 2017). According to the State Council Development Research Center in 2006 on a nationwide sample survey, even at that time, as many as 74% of the villages did not have "surplus labor" to enter city to work, and only 25% of the villages still had labor force below age 40 (Guangming Daily, 2017). In-depth investigation found that more than 50 percent of the rural laborers born in the 1970s did not farm and would not engaging in farming, and more than 95 percent of the rural laborers born in the 1980s did not farm and would not farm, the percentage for labor force born in the 1990s would almost be zero. The farmers in the rural areas are mainly part of the population aged over 40 at an average of 55.2, and the majority is women (Yu, 2011). An agricultural powerhouse with long history actually has a "farmer shortage", which is a major national condition change in the new century. As a result of the continuous shedding of labor force, rural hollowing, agricultural sidelineization, fragmentation of peasants continue to accelerate, the labor force engaged in agricultural production declines rapidly from quantity to quantity. The rural labor force suitable for modern agriculture is not only short on total amount, but also the overall cultural quality is Low and has the prominent aging problem. All these issues no doubt directly affect the rural labor force's acceptance of agricultural science and technology, hinder the promotion and application of new varieties and new technologies in agricultural production, delay the transformation and upgrading of agricultural industry structure. With the rapid development of urbanization in China, in the long run, the transfer of rural labor force was in a significantly increasing and accelerating trend. "Who will farm" and "who will pig" has become a problem of the era that needs to be solve for China's agricultural development.

### **Land Resources**

Land is the most basic material requirement for agricultural production. With the advance of industrialization and urbanization, the situation of cultivated land protection in China is becoming more and more serious. In 2015, the national arable land area of 1.7851 billion Mu, per capita arable land area of 1.35 acres (People's Daily, 2018) which is 50% of the world average. The medium and low yield arable lands accounted for nearly 70% of the total cultivated land area; the overall quality of cultivated land in china is not high (Cheng, 2018). The national contiguous distribution of high-quality arable land is only 51 stretches, about 10 million Mu of arable land, of which 600 million Mu can be irrigated, and 400 million acres cannot be irrigated (Science

Times, 2018). The sizeable national concentrated contiguous arable land is low on reserve resources, and mostly distributed in ecologically fragile areas. In 2001-12, the national arable land decreased by 128.9 million mu (see Figure 2-3). With the accelerated process of industrialization, arable land loss is inevitable and the contradictions between people and land will be more prominent. At the same time, due to the negligence of land protection and rational use for a long time, soil erosion and land desertification is more serious. By 2016, the country has more than 3.56 million square kilometers of soil erosion area that need urgent treatment, and the average annual soil erosion up to 4.5 billion tons (China Land Resources News, 2017). Arable land resources reserve is in a serious shortage, and its development cost is also high because of poor natural conditions (National Land and Resources, 2012).



Figure 2-3. Change of national arable land area in china between 2001-2012 (National Land and Resources, 2012)

### Water Resource

Water resource is one of the key resources of agricultural development, and the disparity and distribution of water resources directly determine the scale, type and level of agricultural development. China's water resource ranks sixth in the world, but the distribution season is uneven, the regional gap is large, low on per capita amount. In terms of water demand, china is a country that has serious water shortage. In 2017, the total amount of fresh water resources in China was 28.7612 trillion square meter and were unevenly distributed across the country, which is 19.6% in the north and 80.4% in the south (China Water Resources Bulletin, 2018). There were only 2,200 square meter per capita, which is around 1/4 of the world average, and 1/5 of that of USA, thus china is one of the poorest countries in the world in terms of water resources per capita (China Water Resources Bulletin, 2018). China's agricultural is a big consumer of water consumption, accounted for a large proportion of total water consumption. Since 2010, the total water consumption in China has increased from 60.22 to 60.434 billion square meter in 2018, of which agricultural water usage has grown from 61.3% to 62.3% (China Water Resources Bulletin, 2018).. And of all types of water consumption, farmland irrigation water consumption rate is the largest at 63%. From the water efficiency point of view, the phenomenon of agricultural water waste is widespread, the effective utilization of water resources is very low. During the period from 2001 to 2018, the total volatility of the total water resources in China was generally stable, but the total water consumption increased by 7.05% (China Water Resources Bulletin, 2018). The total water consumption of various industries increased by 4.3%, and of which agricultural water consumption increased by 19.9%. It is predicted that by 2030 the country's total water demand will reach 100 billion square meter, the country will incur a water shortage amount to 4000 ~ 450 billion square meter (China Water Resources Bulletin, 2018).

Table 2-1. China's Total Water Resources and Utilization in 2001-2010 (China Water Resources Bulletin, 2011)

年份	全国水资源总量 (亿立方米)	全国总用水量 (亿立方米)	农业用水占比 (%)	全国用水消耗总量 (亿立方米)	农业耗水占全国耗水量比重 (%)	农业耗水量 (亿立方米)
2001	26868	5567	62.6	3052	64	1953.28
2002	28255	5497	61.4	2985	64	1910.4
2003	27460	5320	64.5	2901	77.3	2242.473
2004	24130	5548	64.6	3001	77	2310.77
2005	28053	5633	63.6	2960	76.2	2255.52
2006	25330	5795	63.2	3042	75.7	2302.794
2007	25255	5819	61.9	3022	74.6	2254.412
2008	27434	5910	62	3110	74.7	2323.17
2009	24180	5985	62.4	3155	75.4	2378.87
2010	30906	6022	61.3	3182	73.6	2341.952

数据来源：根据中华人民共和国水利部发布的历年《中国水资源公报》整理。

## Forest Resources

Forest resources are one of the important agricultural resources. However, the forest coverage in China is low and the total amount of forest resources is insufficient. According to the eighth national forest resource inventory study (Forestry Resources Administration, 2018), the national forest area is 208 million hectares; the forest reserve volume is 15.137 billion cubic meters; the forest coverage rate is 21.66%, which is lower than the global average (only two thirds of the global average), ranked at 139th in the world; per capita forest area is 0.145 hectares, which is less than a quarter of the world's per capita possession; forest reserve volume per capita is 10.151 cubic meters, only 1/7 of the world's per capita share (Forestry Resources Administration, 2018).

Each year, due to natural disasters and artificial deforestation, more than 6.6 million acres of forest land change to no forest land, sparse woodland and shrub land. Because of the low coverage rate of forest, it is difficult for the forest to play an important role in regulating the climate, conserving moisture, preventing soil erosion and desertification, and affect the protection and improvement of agricultural ecological environment, which is also a disadvantage of China's agricultural development.

## III. The Environmental Effects of China's Agricultural Development.

For a long time, China's agricultural development is in a development path of low level of flat land reclamation area expansion, which aims to pursue the growth of agricultural products. The use of a large number of chemical fertilizers, pesticides and other petrochemical substance, which aims to improve agricultural output, has cause agricultural ecology problem very prominent. At the same time, the industrial pollution and urban life pollution caused by industrialization and urbanization poses a serious threat to China's agricultural ecological environment, and has become an important factor that restricts China's agricultural development and social stability.

### Excessive Use of Fertilizers, Pesticides, Etc. Lead to Soil and Water Pollution

China is the world's largest fertilizer using country, of which up to 59.84 million tons in 2017, 3.4 times of the world's average. The consumption of pesticides in china reached 1.806 million tons in 2016, three times of the world average. Calculated by the planting area in 2010, the fertilizer application rate is 50.6 tons per square kilometer, which was far more than the 22.5 tons safety ceiling set by the developed countries to prevent the chemical fertilizers' damage on the soil and water. China's agricultural plastic film use is also increasing year by year and has reached 2.68 million tons in 2017(China Rural Statistical Yearbook, 2018), which is an increase of 5.82% since 2011. The excessive use of chemical fertilizers and pesticides are difficult for crops to completely absorb, and it will penetrate into the ground or through the sewage into the water body to produce secondary pollution. The large number of nitrogen and phosphorus in poultry manure will also enter the water and result in eutrophication of water. Experts estimate that China's nitrogen and phosphorus pollutants in the water are from industrial, domestic sewage and agricultural non-point source pollution at about one-third each and more than 50% of the nitrogen and phosphorus in Chinese lakes are from agricultural non-point source pollution (Wang & Cheng, 2008). At the same time, most of the pesticides enter into the water, soil and agricultural products, not only result in the pollution of up to 9.333 million hectares of arable land by varying degrees, but also lead to other ecological problems such as groundwater pollution, water eutrophication and air pollution (Jiang, Gao & Zhang, 2006).

### **Agricultural Pollution Poses A Threat To The Quality And Safety Of Agricultural Products**

In recent years, a variety of agricultural pollution caused by excessive use of fertilizers and pesticides as well as the agricultural pollutants that were disposed directly into the water without pre-treatment, has posed a threat to food safety and human health. According to the monitoring data of the Ministry of Agriculture in April 2005, out of the 3845 samples of 52 kinds of vegetables in 37 cities, 318 had pesticide residues that exceeded the safety standard, and the pesticide residues exceeding rate in leguminous vegetables is the highest. The main reason for the excessive pesticide residue is that the use of restricted pesticides was not under control. If the pesticide residues enter the human body through the food chain and accumulate, it will cause a great threat to health and life (Liu, Zhou, Fang, Shang & Chen, 2006). Although in recent years through strong control measures, pesticide residues exceeded the rate of decline, but the situation is not stable, a lot of local hidden dangers still exist, many prohibited pesticides, poor quality and counterfeit pesticides are still being used, incidents such as "poison rice" , "Poison cowpea" and pesticide poisoning still occur occasionally. Second, the direct disposal of agricultural pollutants has cause the main water body to present a serious eutrophication status, which is seriously affecting the drinking water safety. The accumulated Nitrogen, phosphorus and pesticides in drinking water sources, especially well water, has posed a threat to the health of the population. In addition, through the food chain, soil pollution will also enter into human body and affect human health by food, vegetables, fruits and meat.

### **Agricultural Pollution Has An Adverse Impact On The Economy**

In recent years, China's agricultural pollution has had an impact on economic development. On one hand, the issues regarding quality and safety of agricultural products seriously affected the market competitiveness. Recently, due to pesticide veterinary drug residues, heavy metal content and other indicators exceed the international trade limit standards, China's agricultural exports continue to encounter rejection, detention, return, claims and suspension of contracts and other events. Some traditional bulk exports of agricultural products were even forced to withdraw from the international market. After the accession to the WTO, the Technical barriers on China's agricultural exports from Western developed countries are gradually increasing, the main agricultural exports product such as aquatic products, cereals, animal products, fruits and vegetables, tea, honey all have encountered such problems. Domestically, the agriculture pollution has caused consumer lose trust on the agricultural production and market credibility, which result in an unprecedented crisis of confidence. This no doubt will spread to the development of China's agriculture as a whole. On the other hand, the direct economic losses caused agricultural pollution is very serious. According to the Institute of Soil and Fertilizer of the Chinese Academy of Agricultural Sciences, among more than 2,300 counties in the country surveyed over the past decade, farmers' blind excessive fertilization in the vegetables, flowers and fruits have caused an average of 650 RMB/hectare of direct economic losses. Due to unreasonable and unspecified fertilization, the annual loss of nitrogen fertilizer outside the farmland have exceed than 15 million tons and about half of the used of nitrogen fertilizer was volatile, which result in direct economic losses of up to 30 billion RMB. The economic loss caused by pesticide waste was estimated to be more than 15 billion RMB (Liu, Zhou, Fang, Shang & Chen, 2006). Agricultural pollution also caused different levels of economic losses to fisheries, animal husbandry and tourism, and the indirect economic losses caused for China's agriculture as a whole were almost impossible to measure (Fang & Chen, 2015).

### **IV. Multiple Objectives For Agricultural Development And Transformation During The "Two-Oriented Society" Construction**

Under the constraints of resources and environment, the transformation of China's agricultural development mode should not only break through the pressure of resources and environment, solve the practical problems such as low agricultural efficiency, rising production costs, young labor transfer, environmental pollution and ecological degradation, but also adapt to the globalization, Urbanization, internationalization, and other series of intertwined issues on the requirements of agricultural development, and address the challenges such as global climate change anomalies and the world's agricultural products supply agitation. Therefore, the transformation of China's agricultural development mode under the restriction of resources and environment is the transformation with multiple objectives. It is the realization of multiple-strategic objectives that includes



accelerating the transformation of national economy and the integration of urban and rural development during the construction of "two-oriented society", as well as promoting environmental protection, Resource conservation, farmers' income, agricultural efficiency, which are based on food safety and safety of agricultural products.

### **To Promote National Economic Restructuring**

China's economy has experienced a sustained and rapid growth for a long time. Some deep-rooted problems have been gradually revealed. Due to the old and new contradictions in the economic operation are intertwined, as well as the international economic environment is getting more complicated, it is becoming increasingly unrealistic to rely on large-scale expansion of exports. Also because of rise of trade protectionism that caused by the financial crisis in the world and the rising manufacturing industry from other developing countries, the foreign trade-led economic development model is more and more difficult to sustain. In the context of the fierce competition with other developing countries in the general industrial products and the Irreversible trend of the rising domestic labor force production costs, it is urgent to accelerate the elimination of low-efficiency and high-consumption industries, and strive to develop high value-added and high-tech industries. Therefore, China is at a crucial time period of the national economy transition and strategic opportunities (Chen, 2018), thus to change the mode of economic development has become the main direction of economic work.

And change the mode of agricultural development is the important content and basic support to accelerate the transformation of economic development and promote national economic and economic transformation. If the mode of agricultural development does not change, economic development is difficult to get a fundamental change. On one hand, agriculture is the basis for the development of all societies and the largest market of expanding domestic demand is in rural areas. Throughout the modern social and economic phenomena, most of the economic crisis in to find a way out through agriculture, it can be said that agriculture is a safe haven for economic crisis. Only by changing the mode of agricultural development, strengthening the comprehensive production capacity of agriculture, comprehensively improve the market competitiveness of agricultural products and farmers' income, the rural economic development and rural market demand to upgrade to fully expand domestic demand, thus becoming a national economic development "New Engine", to promote the smooth transition from export-oriented economy to inward-oriented economy. On the other hand, agriculture is the most basic industry of the national economy. During the current economic development in China, in terms of organization, scale, efficiency, technology and production means, agriculture needs to change the mode of development the most. Evaluated by the standard of modern agriculture, the status quo of low-industrialization, low-marketization and low-integration in China agriculture never fundamentally change, and the status quo of the small scale of production, decentralized operation, low efficiency and low technological content has not changed profoundly either (Chen, 2011). The fundamental reason of this problem is that the development mode is not excellent and the traditional mode of production and management has not essentially changed, thus changing the mode of agricultural development is a major strategic task to change the mode of economic development.

Whether being able to solve the problem of agricultural development is a major challenge to the Chinese Party's governing ability. The Party Central Committee has put the work of three dimensional rural issues as the top priority for the Party and government. Since the beginning of the new century, the Document No. 1 of Central Committee has been focusing on agriculture and rural agriculture issues for twelve consecutive years. In the final analysis, it is aimed to accelerate the transformation of agricultural development mode and adapt to the new requirement of the national economy transformation. However, in the face of the great achievements of industrialization in promoting the national economy, some people have shaped the ideological misunderstanding and formed the "only industrial theory" dominant ideology in the actual work, and this will undoubtedly lead to the realization of the "Latin American phenomenon", which means to sacrifice agricultural for the achievements of industrialization. Obviously, "only industrialization theory" is not only a misunderstanding of the scientific concept of development, but also a haste behavior that lacks of strategic thinking. Therefore, with the background of economic globalization and with purpose of enhancing the national competitiveness, in order to accelerate the transformation of the national economy and stimulate

the vitality of agriculture, so that it can become the new engine for a national economy development and provide a breakthrough for the smooth transition of the national economy, it is necessary to consider transforming the mode of agricultural development as an indispensable part of the effective development strategy of the national economy, according to the theory of agricultural development.

### **Accelerate The Integration Of Urban And Rural Development**

Historical experience shows that in the transition from agricultural society to industrial society, urban development is always ahead and followed by rural development. But in fact, the urban and rural economies have an interdependent relationship. On one hand, urbanization and industrialization need agriculture to provide enough food, industrial raw materials, consumption markets and other support; on the other hand, agriculture and rural development requires urban industry to provide employment opportunities for surplus rural labor, the modern equipment and technology needed for agricultural development, and the industrial products that are needed for rural construction and livelihood. In this sense, urbanization and industrialization during the modernization process are more dependent on agriculture and rural modern transformation. Therefore, fundamentally speaking, to eliminate the dual structure of urban and rural areas and promote urban and rural integration, we must change the mode of agricultural development and to achieve the transformation of traditional agriculture. In practice, the modernization of developed countries and regions are also on the basis of the coordinating promotion of industrialization, agriculture and rural modernization. Obviously, changing the mode of agricultural development has a fundamental and strategic role in promoting the integration of urban and rural development.

At present, China has entered the development stage of using industrialization to promote agriculture and using urbanization to lead realization, and it is also in a critical period of time of transforming traditional agriculture and achieving agricultural modernization. Agriculture's production mode and industrial structure, rural social form and farmers' ideas have been undergoing major changes, which enable the development of modern agriculture has a corresponding basis. At the same time, China's agricultural backwardness, slow rural development, difficult in increasing farmers' income and many other deep-seated problems, have not been fundamentally resolved. It is not only the profound reflection of reality changes in agriculture and rural areas' internal and external environment, but also the concentrated reflection of the long accumulation of various deep-level contradictions that resulted from urban and rural dual structure (People's Daily, 2004). The fundamental reason is that industrialization and informationization, urbanization, agricultural modernization are not synchronized and do not match, which causes agricultural modernization "short board", urban and rural dual development, and the formation of urban and rural economic and social dual structure. With the widening gap between urban and rural areas, urban and rural dual structure is rising as the main contradiction of China's economic and social development. Thus, to accelerate the modern transformation of agriculture, effectively solve the agricultural development and industrial development docking, rural development and urban development docking, and rural resources and urban resources docking and other issues, which in order to crack the urban and rural dual structure and form new pattern of urban and rural development and integration, has become a strategic issue to solve China's economic and social development.

### **To Ensure National Food Security**

Food security is a material basis for a country's long-term stability and an important part of the national security strategy. If the food crisis occurs in a global power of more than one billion people, it is not only a disaster for China, but also a disaster for the world. Therefore, the significance of speeding up the transformation of agricultural development so as to protect food security has not only confined to China itself but also to the rest of the world.

From the domestic point of view, although China's agricultural development is in the best period of history and the total grain output has achieved nine consecutive year increase, but with continual acceleration of China's industrialization and urbanization, the rural labor force constantly migrant to city seek jobs, the phenomenon of "hollow village "and abandoned land reclamation keep rising. " who will farming "and " how to farming "has become an inevitable serious problem for food security. For a variety of reasons, the level of

development of agriculture is far from adequate, and with the increasing rigid demand for food and continual strengthening resource environment constraints, food security is facing the challenge of whether agricultural development can speed up the transformation. From the international point of view, in the global economic competition, the food crisis caused by the surge in food prices from time to time had triggered the political social crisis in a number of countries and regions. Food, oil, and currency have become the strategic arms in the world economic competition, and the agricultural comprehensive production capacity and food market competitiveness will undoubtedly become an important part of the global strategy for the powerhouse with large a population (Zhu & Chen, 2013). Therefore, ensuring national food security has become the primary goal of China's agricultural development and transformation, and it is also a very difficult strategic task in the new historical period.

At present, China is facing a passive situation in where the western developed countries, especially the United States dominate the world agricultural market. As the world's traditional agricultural powerhouse, China has no right to speak in the world agricultural market, and even during the world food crisis, it could not share enormous profits in world food market, which make an agriculture powerhouse become “rations agriculture.” In order to strengthen the domestic food security, we need to accelerate the modern transformation of agriculture from the height of national strategy, we must break through the traditional theory of comparative advantage of national division of labor, incorporate the change of agricultural development mode into the strategy of enhancing the global competitiveness of the country, enhance agriculture as the strategic industry that serves nation’s global competition, form sustainable development of agricultural comprehensive production capacity, achieve sustainable development of agriculture and convert into a strong agricultural international market competitiveness. As a result, we can master the national food security initiative and raise it to the strategic advantage of the whole country (Chen, 2018). To ensure national food security, we need to be clear about three goals: to accelerate the modern transformation of agriculture, comprehensively enhance the comprehensive agricultural production capacity and effectively meet the domestic food demand; comprehensively enhance China's food market competitiveness and expand the right to speak in the market system of world Agricultural products; enhance agriculture as the strategic industry that serves nation’s global competition and improve the country's global competitiveness, which eventually shapes the "recent security self-sufficiency, medium-term international initiative, long-term international dominance” strategic target system that incorporates sustainable development and diversified interpretation.

### **To Protect The Quality Of Agricultural Products**

With the rapid development of reform and opening up in decades, China's agricultural development is in the transition from traditional agriculture to modern agriculture, and the focus of agricultural products supply is shifting from merely quantity growth to quantity and quality as well as safety. The quality and safety of agricultural products as a major problem of people's livelihood is not only related to the adjustment of agricultural industry structure, income of farmers and improvement of the overall efficiency of agriculture, but also the market competitiveness of agricultural products and its ability to respond international trade barriers; not only related to people's quality of life but also people’s life safety and social stability; not only related to the ecosystem’s improvement, but also agriculture’s sustainable development. Thus, it is a strategic question about the development of agriculture, food safety, environmental protection and economic development.

Although the situation about quality and safety of China's agricultural products has been generally stable and gradually improved in recent years, which contributes greatly in safeguarding the effective supply of agricultural products, satisfying the needs of consumers and increasing the income of farmers. However, with the economic globalization and industrialization, the process of urbanization accelerated, the agro-ecological environment gradually deteriorated, the safety factor of agricultural products decreased, the quality and safety of agricultural products has become increasingly prominent. Issues such as pesticide residues, nitrate, and heavy metals have increasingly become the focus of public opinion. Especially since the "SARS" incident, the occurrence of a series of food safety issues like "poison rice", "treasure fish", "Sanlu problem" has caused agricultural products’ quality and safety crisis raise almost to the extent of jittery, which seriously affected the

overall reputation of China's agricultural market. Therefore, improving agricultural products' quality and safety standard is an important goal of China's agricultural development and transformation, and it is also one of the major problems to be solved urgently in the new stage of agricultural development.

The quality and safety of agricultural products not only directly threatens human life and health, but also directly affects the international competitiveness of Chinese agricultural products. In the era of economic globalization, international agricultural trade competition is not only the competition of price, but also a competition of quality and credibility, and the quality of agricultural products is the core market competitiveness. To promote the strategic transformation of agricultural development strategy and enhance the level of quality and safety of agricultural products, it is necessary to establish a green production concept, which means that the quality and safety of agricultural products should be placed as important as the height of quantity, and to develop "high quality, high yield, efficient, ecological, safe" agriculture, and to promote the development of specialization, standardization, scale and intensification. There are two specific objectives: First, through the agricultural inputs control and standardization of production, comprehensive control the residual amount of toxic and hazardous substances in agricultural products, prevent agricultural product quality and safety risks from the source and ensure that the health of vast number of consumers; Second, by upgrading the quality of agricultural products, create high-quality agricultural products brand, enhance the competitiveness of agricultural products, and ensure that agricultural efficiency, farmers income increase and agricultural sustainable development.

### **To Promote Resource Conservation**

The carrying capacity of resources is a major bottleneck restricting the sustainable development of China's economic society, thus, effectively protecting and rationally utilizing various resources to improve the efficiency of resource utilization, obtaining maximum economic and social benefits with the lowest possible resource consumption is a long-term, systematic project for a heavy-populated nation with serious shortage of resources per capita. Although China's agricultural development in recent years has achieved remarkable results, but has not been able to fundamentally get rid of the traditional development concept of depending on resources. The phenomenon of predatory exploitation of agricultural resources still vastly exist, and the One-way flow linear production mode of "resource inputs - agricultural products (Chen & Lu, 2011) still continue, which caused the issues such as the excessive consumption, extensive use or even waste of non-renewable resources like land and water, and the emissions of toxic and harmful substances. This has brought an increasingly serious challenge for China's future development.

Therefore, paying full attention and consideration to resource carrying capacity, promoting resource conservation, and enabling the sustainable use of limited natural resources is an important goal and basic requirements to accelerate the transformation of agricultural development.

To promote resource conservation, it is necessary to demand that the mode of agricultural development transfer from "high input, high energy consumption, high pollution, low output" in the past to "low input, low energy consumption, low pollution, high output", place resource utilization efficiency as a prerequisite, so that resource development and conservation can progress together. First, reducing the use of agricultural resources, that is, through conservation-oriented technology and agricultural variety structural adjustment, at the same time of ensuring and enhancing agricultural output, reducing agriculture consumption in energy, water resources, raw materials, land resources, etc. The second is to achieve the comprehensive utilization of agricultural resources, that is, through the material exchange within agricultural industry and the use of agricultural waste, to achieve the high efficient recycling use of agricultural resources. The third is to promote the development and utilization of new energy in agriculture, that is, by promoting the comprehensive utilization of alternative energy sources such as wind energy, solar energy and biomass energy in agriculture, to enhance the application level of renewable energy in agriculture and promote the sustainable development of agriculture.

### **To Achieve Environmental Friendliness**

Protecting the ecological environment, establishing a healthy interaction between people and the environment, and achieving the production and consumption activities and natural ecosystems coordinated and sustainable development so as to achieve strategic goal of ecological civilization such as environmental friendliness, so that people breathe clean air, drink clean water, eat assured food, production and living in the ecological space of Castle Peak, green water and blue sky. This is not only a development problem, but also a livelihood problem. Although the trend of deterioration of China's ecological environment is gradually being curbed, but the deterioration of the ecological environment is an indisputable reality, especially the current increasingly serious haze governance problem, there is a long way to go.

The cause of China's current ecological and environmental security crisis is the extensive industrialization and urbanization development path, nonetheless extensive agricultural development model is also to blame. Predatory exploitation has exacerbated soil erosion and wetland reduction, the abuse of chemical fertilizers and pesticides lead to land degradation and species extinction, etc., the agricultural non-point source pollution of many places are even severe than industrial pollution. This not only further pollutes and worsens the whole ecological environment, but also breaks the benign cycle of agroecosystem, causes natural disasters and food safety problems, and poses a major threat to China's food security and sustainable development of agriculture itself. Under such double pressure, there is no doubt that achieving environmental friendliness, enhancing the carrying capacity of resources and the environment and enabling agricultural development expand towards ecological and other multi-functional direction, which aims to strengthen agriculture's natural self-circulation and self-purification capacity, ease and repair destruction of ecosystems and resources and environment caused by life and production Activities, is undoubtedly an important goal of China's agricultural development and transformation, and also the inevitable response to the current agricultural ecological environment.

From the current situation of China's agricultural ecosystem resources and environmental carrying capacity, to accelerate the transformation of agriculture and achieve environmental friendly must take into account the two objectives: to ensure the supply of agricultural products and improve the ecological environment (Zhu, 2013). And the core is to achieve the harmless agricultural production, that is, through the promotion of the use of biological pesticides, organic fertilizers, biodegradable agricultural film, biodiesel and other environmentally friendly agricultural inputs, optimizing the agricultural product structure, achieving agricultural ecological balance while ensuring agricultural efficiency. Resource conservation and environmental friendliness are closely related, resource conservation is to a large extent reducing pollution emissions and protecting the ecological environment, such as reducing pesticide, fertilizer, film, and resource recycling. These two objectives are unified in the overall "two-oriented society" strategy, their purpose is to promote agricultural economic benefits, ecological benefits and social benefit simultaneously, and to achieve the healthy, rapid and sustainable development of agricultural and rural economy.

### **Increase the Farmers' Income**

Increasing the income of peasants is the core problem in the whole three-dimensional rural issue, and it is also a prominent problem in the development of the national economy. It is directly related to the improvement of the peasants' living standard, the mobilization of the peasants' production enthusiasm, the increase of agricultural inputs and the expansion of reproduction, the stability and prosperity of the rural areas, the establishment of a stable and comprehensive well-off society, the sustainable development of agriculture and the effective guarantee of national food security, thus an overall situation issue that related to the of national economic development.

Since 2000, the central government has made a series of effective and practical policies and measures to increase the income of peasants, from exemption of agricultural taxes to strengthening rural infrastructure, from new rural construction to urban and rural co-development, which brings farmers the "real money" benefits, let farmers share the fruits of social development, reflects the social fairness and won heartfelt support of millions of farmers. However, in the new transition period, the difficulty of increasing the income of farmers is increasing, the income growth rate is relatively slow, and the income growth point is more and more limited. In order to strengthen the basic status of agriculture, the government has adopted a variety of preferential

agricultural policies, nonetheless the slow growth of farmers' income is closely related the factors that cause the sluggish transformation of agricultural development mode such as the current rural management system, land system, market conditions, agricultural technology and promotion system, and rural public investment. The globalization, industrialization and urbanization also have brought multiple effects on the increase of farmers' income. How to establish a long-term mechanism to increase farmers' income is still the focus of Chinese society and the difficulty of macroeconomic policy choice of national economy. Therefore, increasing the income of farmers should be the starting point and the end result of promoting China's agricultural development and transformation.

On the other hand, increasing farmer income is a fundamental sign of whether agriculture can successfully achieve modern transformation, and the barometer of agricultural development. In the market economy, expected income is the basic for farmers engaging in agricultural production and management. When benefits of the proceeds of agricultural production and management are lower than the farmers expected, the enthusiasm of farmers is difficult to play, and they even turn to other industries. Especially as to ensuring such a major goal as national food security, it must rely on the improvement of farmers' income, making it an endless endogenous motivation. In this sense, increasing the income of farmers is also a necessary condition for the realization of China's agricultural transformation. The goal of increasing farmers' income is not only to improve the output and economic benefits of agricultural units, but also to broaden the sales channels of agricultural products and to increase the added value of agricultural products, which are inseparable from the government's preferential agricultural policies. From the current point of view, changing the agricultural development mode to achieve the goal of increasing farmers' income should promote the growth of farmers' income higher than the income growth rate of urban residents, increase the comparative income of agriculture, and realize the rapid growth of farmers' operating income, which will truly accelerating the transformation of china's agricultural development.

### **To Improve Agricultural Efficiency**

The historical experience from the establishment of new China to reform and opening up has shown that the level of agricultural efficiency affects the healthy development of China's entire national economy. Under the condition of market economy, agricultural efficiency is the comprehensive reflection of land production rate, resource utilization rate and agricultural labor productivity and core competitiveness, which is the main symbol to measure the level of agricultural modernization in a country and region. At present, China's agricultural efficiency is generally low is an indisputable fact and is also a major obstacle to improve the income of farmers, narrow the gap between urban and rural areas, and the gap between workers and peasants.

Influenced by the traditional concept of agricultural development, the labor and land scale have long been the decisive factor in improving the efficiency of agriculture, and this fails to realize the key role of the sustainable development of new agricultural human capital, and fail to effectively play the decisive effect of human capital on agricultural development. At the same time, the current price of agricultural products, especially food prices did not fully reflect the dynamic changes in market price factors, which result in the lack of endogenous incentives in improving agricultural efficiency. While the contradiction between small-scale decentralized operation and large market intensification is very prominent, other agricultural development problems such as low commercialization rate, low market competitiveness, low efficiency, low scale and low organization also need to be solved. Therefore, how to continuously improve the efficiency of agriculture through making agricultural development more rely on scientific and technological progress, improvement of facilities and equipment and development of the workers quality so as to enhance the comprehensive agricultural production capacity, market competitiveness and sustainable development capacity, is foothold and focus of accelerating the development of agriculture Transformation.

To improve the efficiency of agriculture, that is, under the same conditions with less investment to obtain the same output or with the same input to generate more output and can bring more benefits for agricultural producers, its core lies in the efficient use agricultural factors of production. To achieve the goal of improving agricultural efficiency, first is to improve the land output rate. Currently, in China there exists contradiction

between limited land and large population, and with the continuous advance of urbanization and industrialization, farming resources continue to decrease, the land will become a fundamental constraint for agricultural development and with the growth of agricultural demand, agricultural development and transformation must be committed to improving the land output rate. Secondly, is to improve labor productivity, that is, the number of products agricultural workers produced in unit of time. Although there are still a large number of rural labor surplus, but in the long run, with the progression of urbanization and rising labor costs, increasing agricultural labor productivity will certainly become an important factor for improving agricultural efficiency and enhancing agricultural competitiveness. The third is to improve the utilization rate of resources, which is the condition of effective using land, water, fertilizer, agricultural waste and other resources. Improving the utilization rate of agricultural resources is the basis to protect the agricultural ecological environment, improve agricultural efficiency and develop agriculture multi-functionality. China's agriculture development is facing the constraint of resources shortage, so improving resource interest rates is the inevitable goal of China's agricultural development and transformation.

To sum up, there is a close relationship between the above objectives of China's agricultural development and transformation under resource and environment constraints. For example, the realization of resource conservation and environment-friendly goals is the basis for the realization of food security objectives, and the realization of food security objectives can also promote resource conservation; achieving the goals of increasing farmers' income and agriculture effectiveness are the important prerequisite for ensuring the security of food security and the driving force for promoting economic security, at the same time, the realization of the goal of food security and economic security also provide an important guarantee for farmers to increase income and agricultural efficiency to, and so on. To achieve the multi-objectives of agricultural development and transformation, we must consider both the international environment and China's specific national conditions, take into account of the opportunities and challenges brought to China's agricultural development by globalization, industrialization, urbanization, and internationalization, consider China's current stage of agricultural development Resource endowment, environmental carrying capacity, material basis, talent support, system security and scientific and technological contribution capacity and other realistic conditions, and form an overall strategy for agricultural development and transformation on the above mentioned basis.

#### Reference:

1. Anhua, H, Dong, L, Xiangzhi K. (2012). *Research on Resource and Environment Constraints of Agricultural Development in China. Rural Economy* (02).
2. Bingxin. H. (1992). *Present Production Status and Development Prospect of Main Edible Agricultural Products in China, Economic Research Reference* (z5).
3. China's cultivated land has reached the most dangerous time. Examine the national conditions behind the numbers. (2018, April 22). *Science Times*.
4. China lost millions of acres of cultivated land due to soil erosion. (2017, April 20). *China Land Resources News*.
5. *China Rural Statistical Yearbook* (1975 – 2001). China Statistics Press.
6. *China Rural Statistical Yearbook* (2004 – 2012). China Statistics Press.
7. *China Rural Statistical Yearbook* (2011). Beijing, China Statistics Press
8. *China Rural Statistical Yearbook* (2018). Beijing, China Statistics Press
9. Chuanqi, H. (2012). *China Modernization Report—Agricultural Modernization Research*, Peking University Press, (178).
10. Dinghua. Y. (2001). *WTO and China's Food Problems. Financial and Development*, (18).
11. Guiping. L., Yongchun. Z., Yan. F., Qi. S., Jie. C. (2006). *The current situation of agricultural pollution in China and its countermeasures, International Technology and Economic Research*, (4)
12. Hongkun. Jiang. , Haiying. G., Qi. Z. (2006). *Application of Best Management Measures for Agricultural Non-point Source Pollution (BMPS) in China. Environmental Management*, (4).
13. Jianbing. W., Lei. C. (2008). *Analysis of the Status Quo of Agricultural Non-point Source Pollution. Journal of Jiangxi Agricultural University*, (9).

14. Lizhi. Z. (2013, August 16). Guiding agricultural development with the concept of ecological civilization. *Economic Daily*.
15. Ministry of Water Resources of the People's Republic of China. *China Water Resources Bulletin*. (2018). Water Resources and Hydropower Press.
16. National Bureau of Statistics. (2018, March 23) Statistical Communiqué of the People's Republic of China on National Economic and Social Development in 2018. *People's Daily*.
17. National Bureau of Statistics. (2018, February 23) Statistical Bulletin of Chinese National Economic and Social Development in 2018. *People's Daily*.
18. National Forestry Administration. (2018). *The 8th National Forest Resources Inventory and Forest Resources Status, Forestry Resources Management*.
19. Opinions of the Central Committee of the Communist Party of China on Several Policies for Promoting Farmers' Income Increase (2004, February 9). *People's Daily*.
20. There are 20 administrative villages disappear in China daily, and who will plant the land 10 years from now on. (2017, October 27). *Guangming Daily*.
21. *The national cultivated land holding amount is 1.824 billion mu*. (2017). *National Land and Resources*.
22. Wensheng. C. (2011). *The hotspots of new rural construction are difficult to focus on*, *National School of Administration Press*, (pp. 72).
23. Wensheng. C. (2018, July 13). The transformation of the national economy must be made from the breakthrough of the three rural areas, *Guangming Daily*.
24. Wenyuan, N. (2017). *China New Urbanization Report*. Science Press.
25. Yan. F., Jie. C. (2015). *The Situation and Response of Agricultural Pollution*. *Red flag literature*, (15)
26. Yang. C., Tianxia. L. (2011, July 19). The development of modern agriculture must take the road of resource conservation, *Heilongjiang Economic News*.
27. Youzhi. Z., Wensheng. C. (2013, May 25). National food security must meet new challenges in the new era. *Guangming Daily*.
28. Yuanmei, Y. (2011, April 9). Properly respond to the problem of “successors” in farming. *Farmers Daily*.
29. Weiming. Cheng. (2018). *Characteristic change analysis of China's cultivated land's Time and space that is based on landform zoning between 1990 to 2015*. *Acta Geographica Sinica*, Vol.73, No.9



## How financial planning behavior influences personal financial goals: a comparative study between entrepreneurs and wage employees in Thailand

Chavis Ketkaew<sup>1</sup>, Martine Van Wouwe<sup>2</sup>, Preecha Vichitthammaros<sup>3</sup>

International College<sup>1</sup>,  
Khon Kaen University, Thailand  
Email: [chaket@kku.ac.th](mailto:chaket@kku.ac.th)  
University of Antwerp<sup>2</sup>,  
Belgium  
National Institute of Development Administration<sup>3</sup>,  
Thailand

### Abstract

This research compared the financial planning behavior of entrepreneurs and wage employees in northeastern Thailand. The aim of this study was to identify differences in finance, income, retirement goals and the factors that could mitigate these. The results show that entrepreneurs and wage employees differ in terms of P value, with majority of the factors including retirement benefits, health status, financial reward, short term goal and long term goal for wage employees are all significant and for entrepreneur are not all significant. These findings indicate that retirement planning is affected by the way financial are planned and it varies from entrepreneur and wage employees. This study will inform and shows the correct way for future employees to prepare their finances before retiring and what important factors should be under consideration before preparing the money.

**Keywords:** financial planning behavior; retirement behavior; entrepreneurs; wage employees

### 1. Introduction

Financial planning is a process of anticipating and adjusting how much money to spend presently and how much to save for future uses (Ransom & Sutch, 1988). This research explores how factors like retirement benefits, health status, financial reward, and parental status affect retirement behavior and how retirement behavior affects people's short- and long-term financial goals. While people in Thailand think financial planning is important, most do not understand the process enough to execute it effectively. In Thailand, almost all people choose to save money by depositing it in a bank for use as needed. When entrepreneurs retire, it affects their business venture (Wennberg et al., 2010). Therefore, entrepreneurs generally engage in financial planning their entire lives. Wage employees receive a salary when there are working and a pension or working welfare from the company when they retire. Therefore, wage employees also must plan financially for their retirement.

### 2. Research Objectives

In this study, people are categorized into two groups: entrepreneurs and wage employees. Thus, the purpose of this research is to explore how wage employees and entrepreneurs plan their finance differently and whether it matters that they earn different amounts of income?

### 3. Literature Review

#### 3.1 Retirement benefit

3.1.1 Pension sufficiency: One may assume that the path to retirement is a relatively straightforward one. However, conjectures about the current economic climate appear to be making the idea of an easy life

and financial security after retiring more of a farcical dream rather than a concrete reality. Prior to this current economic climate, employees would often retire once their financial reward, or “pension,” was enough to support a comfortable lifestyle post-retirement. Employers will often provide these pensions with benefit amounts that vary based on several factors: supported age, years of service, and final wages. These pensions not only provide a crucial part of an employee’s post-retirement financial planning but also create incentives for those same employees in their respective workplaces.

3.1.2 Provident fund sufficiency: Many countries within Southeast Asia have an additional reliance on family or community, which serve as informal systems to finance social insurance. Substance mandated and managed provident funds are the key feature of the formal social insurance systems in those countries. Additionally, in many Southeast Asian countries, there are company-provided pension funds on a voluntary basis and separate pension systems for civil servants and military and police personnel. However, as a result of it's not nevertheless mature, even as within the case of provident funds, the system must deploy accumulated funds profitably to supply adequate retire advantages.

3.1.3 Insurance sufficiency: Several studies have examined the retirement behavior of older employees. This literature focuses on the consequences of social insurance (Diamond & Hausman, 1984), and personal pensions (Stock & Wise, 1900a, 1900b). One vital issue that has not received a lot of attention is health insurance coverage for retirees. This oversight is shocking given the rather consistent proof that health standing is a vital facet of early retirement (Diamond & Hausman, 1984). If health standing matters within the temporal arrangement of retirement, it appears quite natural that insurance ought to matter likewise.

3.1.4 Employment benefit sufficiency: A majority of employees gets health benefits from the owner or boss and before retirement, most of the companies will pay for their employee health insurance. But lately, firms have been cutting the health benefit of the workers by charging higher costs to retirees or removing the benefits altogether. Many workers do not receive this health insurance, so they try to extend their retirement.

### 3.2 Health status

3.2.1 Physical health: Workers within the general population may often neglect their own health status in the pursuit of wealth. What is beginning to be seen is that, according to previous studies, health can and will often affect total wealth accumulation (Venti & Wise, 2000). Poor health can impact an individual’s marginal utility of consumption, degree of risk aversion, rate of time preference, and the variability of labor income; all of which could affect portfolio composition because health is positively related to age.

3.2.2 Mental health: Most of the analysis of the results of retirement, however, has been restricted to cross-sectional information (Atchley, 1976; Cottrell & Atchley, 1969; Nadelson, 1969; Shanas, 1972). Such studies are somewhat inconsistent; however, they usually notice that retirees, compared to those currently employed, not only have considerably less financial gain but, additionally, a decreased physical and mental state. The weakness of these studies can be found within the confounding variables: Retirees may have had these negative characteristics before they retired. Solely longitudinal studies that have data on pre-retirement characteristics can manage these variables and provide a clearer, concise image on the exact effect that retirement has on individuals.

3.2.3 Quality of medical service: Aged bodies begin the natural process of deterioration. Elderly individuals seem to require more medical procedures and tend to spend more on medical expenses than younger individuals. Johar et al. (2012) provided data that exemplify how hospital and other medical costs, excluding residential care, incurred a steep increase from about \$5,000 per year (2009 AUD\$) at the age of 45 to over \$25,000 at the age of 80 for both males and females. The majority of these costs are coming from hospital expenses.

### 3.3 Financial reward

3.3.1 Salary satisfaction: Receiving bonuses or extra compensation is a pay satisfaction component that is important and connected to administrative outcomes that lead to success. For example, employee dissatisfaction decreases their interest to work and will eventually decrease the learning level of employees. This will demotivate an employee and cause their performance to decline (Judge, Cable, & Higgins, 2000).

3.3.2 Investment: In terms of investment, aging and altered labor supply are two key factors that may produce a desire to regulate portfolio quality allocations, given their relationship with the ability to tolerate

risk (Samuelson, 1991; Samuelson, 1994; Bodie, 2003). As people age, they tend to save higher amounts of money and invest less. Agnew et al. (2003) found that age is related to associate degree redoubled chance of people reducing their equity exposure (and, therefore, risk) in their 401(k) plans and rebalancing. Gerrans et al. (2010) provides Australian-based proof that the reduction in equity exposure among active superannuation members happens at an astonishingly young age.

### 3.4 Parental status

3.4.1 Having a child: Having a child could potentially create family-related gaps, for example, parents with children will have greater responsibility for aging parents than people who do not have any but this research’s focus is on parents with children (Davies & Joshi, 1995). The thing differentiating them is the family gap, which is a difference in hourly wages, so people who have fewer working hours will not be affected directly by the gap. Older children have an appreciation of the role and value of money in terms of asking for money in exchange for participation. Younger ones lack the ability to judge and do not appreciate the value and role of money. The older they become the more likely they are to grasp the concept of what money can potentially buy and the true understanding of wages.

3.4.2 Relying on child: Traditionally, the oldest child will become an independent source of support when their parents reach old age, especially in the rural areas of China. The elders in both rural and urban China rely on their children or other relatives for financial assistance as well as personal care (Ikels, 1997; Wu, 1991). Being responsible for ones’ elder (within the family) is a sociocultural norm that is also protected by law (Davis-Friedmann, 1991). Parents expect to receive support from their children, particularly their sons.

### 3.5 Short-term goals

People’s incentives for short-term goals are influenced by experience, the firm's risk, and the duration of an employee’s contract. The longer the contract, the more stable the employee. When they have a stable contract, employees consider themselves secure for a life after retirement (Hulin, Roznowski, & Hachiya, 1985). Retirement decisions are not influenced by job attitudes but rather by organizational regulations. Workers are likely to make work or retirement plans based on their role and to offer that would lead to the highest satisfaction.

### 3.6 Long-term goals

Investing in long-term goals is the main aspect of human relations but also human’s demand to achieve the targeted goal. As the company encourages people who perform well and behave in such a manner, rewards are given to excellent performers (Walster, Berscheid, & Walster, 1976). Housing is categorized as a long-term goal. When an individual or organization wants to increase their ownership of houses, renters do not usually save using substitute ways and the price of purchasing a house would rise in the long run, the social economic status of homeowners will tend to be better because they will have more wealth than renters (Foster & Kleit, 2015).

Financial planning behavior of entrepreneurs and wage employees will be presented using the following structural model as the Figure 1.

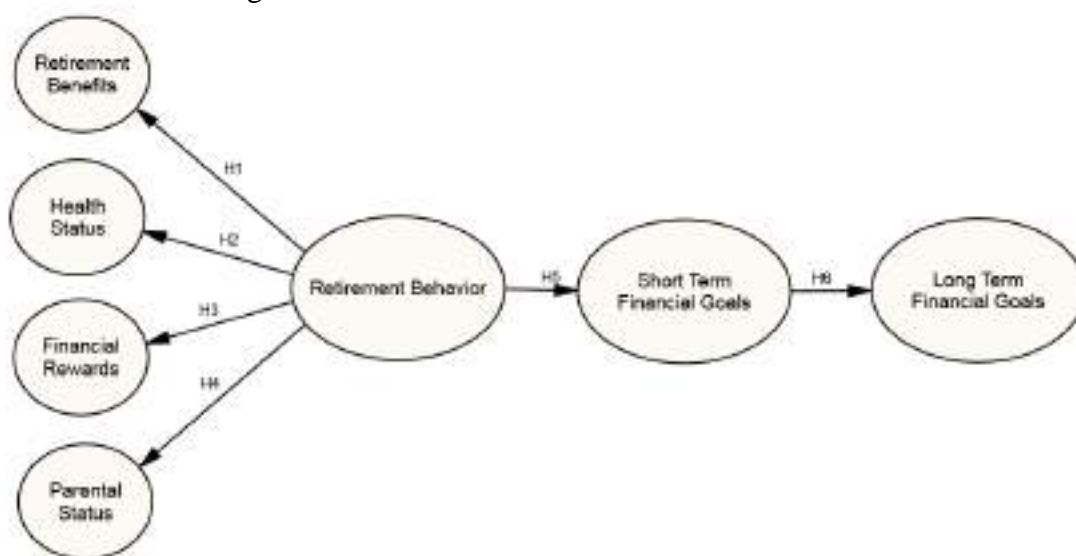


Figure 1. Research Hypotheses.

### Hypotheses

- H<sub>1</sub>: Retirement behavior is explained by Retirement Benefit
- H<sub>2</sub>: Retirement behavior is explained by Health Status
- H<sub>3</sub>: Retirement behavior is explained by Financial Reward
- H<sub>4</sub>: Retirement behavior is explained by Parental Status
- H<sub>5</sub>: Retirement behavior influences Short-term Goal
- H<sub>6</sub>: Short-term goals influence Long-term Goals
- H<sub>7</sub>: Entrepreneurs and wage employees engage in different financial planning behaviors

### 4. Research Methodology

This study collected data from two groups of workers, entrepreneurs and wage employees, to test the purposive sampling method and related hypotheses. The default language of the questionnaires used in this research is English. It was translated into Thai for collecting data in the north-eastern part of Thailand (ESAN) and then the data were translated back into English. The sampling method used in this study was the purposive sampling method. Purposive sampling method involves researchers determining which units are the most suitable to represent the people or issue in question, this means that the selected population would be determined by the research team, which means that the researcher aimed to do sampling in north-east of Thailand area include Nakhon Ratchasima, Khon Kaen, Udon Thani, and Buriram. A pilot test of the questionnaire was given to 100 people in Khon Kaen and interviewed one entrepreneur about the questionnaire. In the pilot test, the research pretested the interrelationship of the variables using the Confirmatory Factor Analysis approach to ascertain the variables' consistency.

After the pilot test, purposive sampling and quota sampling technique were applied and met the total of 650 respondents. Purposive sampling technique allowed us to directly choose the 4 stated provinces based on its well-established economy and employment status whereas quota sampling permitted us to specify appropriate numbers for the data planned to gather from each province. Structural Equation Modeling using Multi-group Analysis was chosen to test the relationship among different variables. The characteristics of the collected sample was revealed as below.

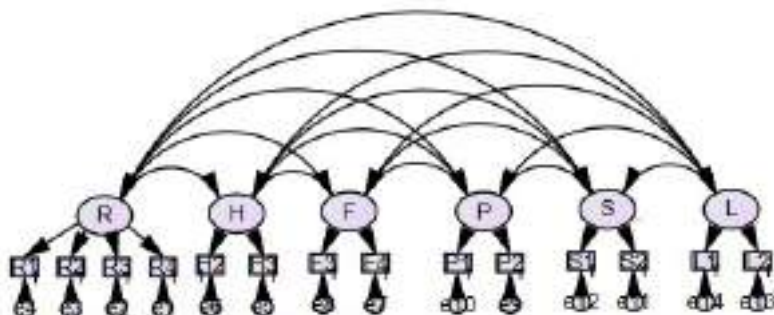
**Table 1. Demographic profile of respondents**

Demographics	(n = 383)	%
Sex		
• Male	135	35.25
• Female	248	64.75
Age		
• 20-29	81	21.45
• 30-39	97	25.33
• 40-49	77	20.10
• 50-59	118	30.81
• 60 and above	10	2.61
Education		
• Less than high school	14	3.66
• High school	131	34.20
• Bachelor's degree	195	50.91
• Master's degree	40	10.44
• Doctoral degree	3	0.78
Occupation		

- Entrepreneur 86 22.45
- Wage employee 297 77.55

## 5. Results

**Figure 2. Measurement Model**



### The confirmatory factor analysis (CFA)

#### Goodness of fit

CFA is utilized to test how well the measured factors align to the number of constructs and, as such, is a tool that determines whether a theory should be accepted or rejected. CFA and EVA are almost identical because they use the same technique, however, in CFA, the numbers of factors are specified, making the variable measurable relating to the latent variable.

**Table 2. Model fit**

Index	Result	Threshold
CMIN/DF	2.121	< 3
GFI	0.952	> 0.9
AGFI	0.919	> 0.9
CFI	0.972	> 0.9
NFI	0.948	> 0.9
RMSEA	0.054	< 0.10

**Table 3. Scale Correlations**

The element on the main diagonal represents the square root of the AVE ( $AVE^{0.5}$ )

Construct	H	L	S	P	F	R
H	(0.801519)					
L	0.195	(0.873222)				
S	0.256	0.439	(0.789917)			
P	0.002	0.275	0.353	(0.775655)		
F	0.424	0.119	0.186	0.086	(0.812399)	
R	0.374	0.096	0.271	0.117	0.408	(0.85451)

H = Health Status, L = Long-term Goal, S = Short-term Goal, P = Parental Status, F = Financial Reward, R = Retirement Benefit

Retirement Benefit (CR = 0.91, AVE = 0.73)

- R1 0.856
- R2 0.917
- R3 0.802
- R4 0.839

Financial Reward (CR = 0.79, AVE = 0.65)

- F3 0.888
- F4 0.729

Parental Status (CR = 0.75, AVE = 0.73)

- P1 0.76
- P2 0.791

the more I can rely on them

Short-term Goal (CR = 0.76, AVE = 0.62)

- S1 0.843
- S2 0.733

Long-term Goal (CR = 0.86, AVE = 0.76)

- L1 0.908
- L2 0.837

Health Status (CR = 0.78, AVE = 0.64)

- H2 0.729
- H3 0.868

**Note:** AVE = Average variance extracted, CR=Construct reliability

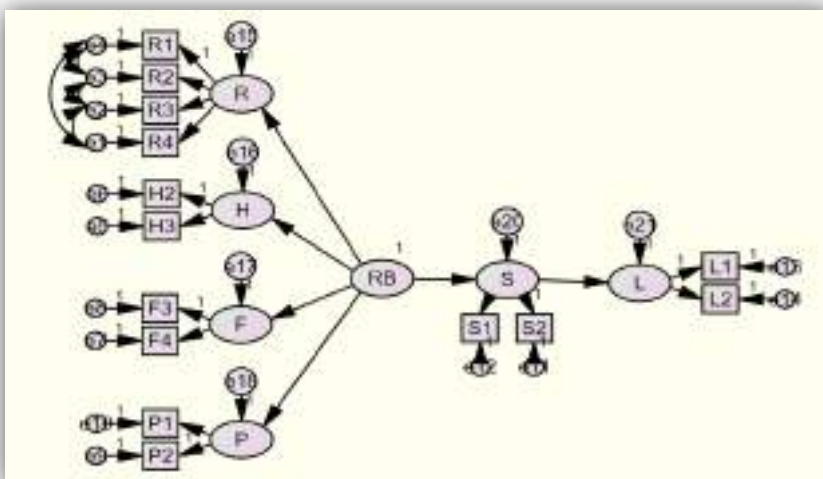
As shown in the information above, all of the constructs and all of the composite reliabilities (CR) are higher than 0.7, which indicates that it is a highly reliable construct with good convergence validity. Each average variance extracted (AVE) constructs are above 0.5, which shows that they are reliable. From the CFA run using AMOS, the p-values are all significant and the estimate numbers are above the threshold of > 0.7, the model fit of the CFA is greater than the threshold and the model comparison p-values are all under 1%. The AVE and CR results, which use the estimate numbers from the CFA, exceeded the thresholds.

**Table 4. Measurement of multi-group analysis**

Model	DF	CMIN	P
Measurement Weights	8	33.321	0.00
Structural Covariance	29	71.058	0.00
Measurement Residuals	43	158.521	0.00

After running the CFA, first, we separated the group into two groups of entrepreneurs and wage employees to perform a multi-group test to test H<sub>7</sub>: Entrepreneurs and wage employees engage in different financial planning behaviors. The fragment of the model comparison means that the two groups are different and, therefore, this hypothesis is supported.

**Figure 3. Structural analysis and model testing**



From the SEM above, all of the results fit perfectly with the empirical database. This shows that all of the variables from CMIN/DF to RMSEA met the criteria and passed the test. After the results of the CFA model, we tested our data in the SEM using AMOS to determine the model fit.

**Table 5. Model fit of SEM**

Index	Result	Threshold
CMIN/DF	1.867	< 3
GFI	0.927	> 0.9
AGFI	0.904	> 0.9
CFI	0.958	> 0.9
NFI	0.914	> 0.9
RMSEA	0.048	< 0.10

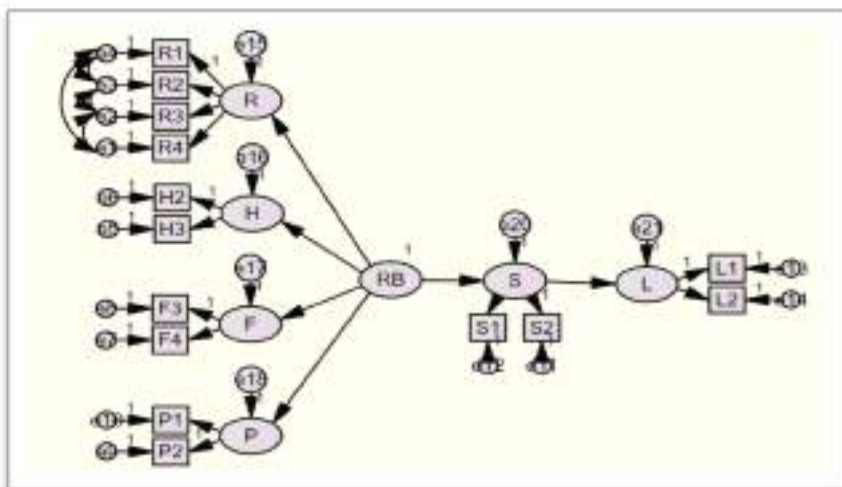
**Note:** CMIN/DF: Chained Multilateral Index Number / Degrees of freedom, GFI: The Goodness-of-Fit Index, AGFI: Adjusted Goodness-of-Fit Index, CFI: Comparative fit index, NFI: Normed Fit Index, RMSEA: Standardized root means square error of approximation

**Table 6. Structural model of model relationships and hypotheses**

Model relationships	Hypotheses	p-value
Retirement Behavior -> Retirement Benefit Estimate (0.659)	: H1 supported	***
Retirement Behavior -> Health Status Estimate (0.59)	: H2 supported	***
Retirement Behavior -> Financial Reward Estimate (0.654)	: H3 supported	***
Retirement Behavior -> Parental Status Estimate (0.175)	: H4 supported	0.004**
Retirement Behavior -> Short-term Goal Estimate (0.368)	: H5 supported	***
Short-term Goal -> Long-term Goal Estimate (0.438)	: H6 supported	***

\*\*\* *p*-value < 0.001, \*\* *p*-value < 0.005

**Figure 4. SEM multi-group analysis - first model**

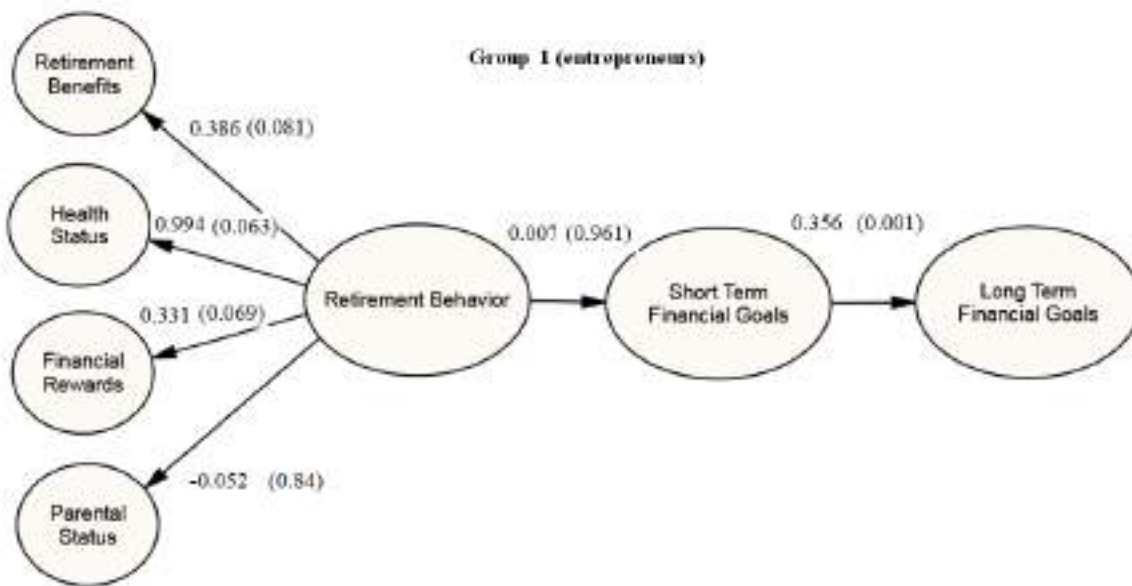


**Table 7. Model fit of the SEM (multi-group analysis - first model)**

Index	Result	Threshold
CMIN/DF	1.380	< 3
GFI	0.935	> 0.9

AGFI	0.900	> 0.9
CFI	0.978	> 0.9
NFI	0.925	> 0.9
RMSEA	0.032	< 0.10

**Figure 5. Multi-group Analysis (Group 1)**

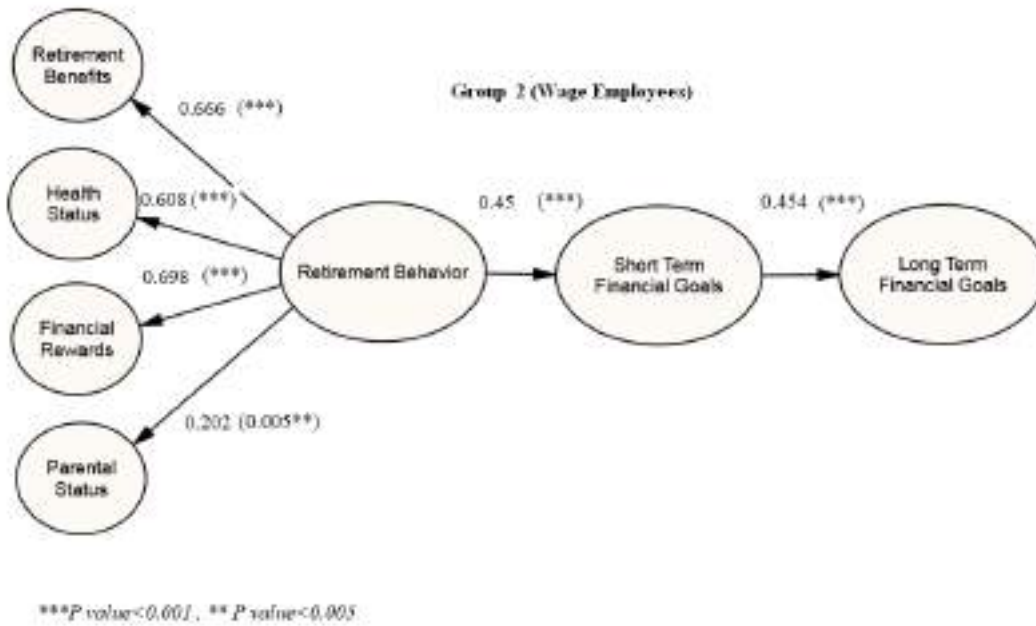


**Table 8. Estimated results of the SEM (multi-group analysis – group 1)**

Group 1 (Entrepreneurs)	Estimate	p-value
Retirement Behavior - > Retirement Benefit	0.386	0.081
Retirement Behavior - > Health Status	0.994	0.063
Retirement Behavior - > Financial Reward	0.331	0.069
Retirement Behavior - > Parental Status	-0.052	0.84
Retirement Behavior - > Short-term Goal	0.007	0.961
Short-term Goal - > Long-term Goal	0.356	0.001

**Figure 6. Multi-group Analysis (Group 2)**





**Table 9. Estimated results of the SEM (multi-group analysis – group 2))**

<b>Group 2 (Wage Employees)</b>	Estimate	p-value
Retirement Behavior - > Retirement Benefit	0.666	***
Retirement Behavior - > Health Status	0.608	***
Retirement Behavior - > Financial Reward	0.698	***
Retirement Behavior - > Parental Status	0.202	0.005**
Retirement Behavior - > Short-term Goal	0.45	***
Short-term Goal - > Long-term Goal	0.454	***

\*\*\*p-value < 0.001, \*\* p-value < 0.005

**SEM multi-group analysis - second model**

**Table 10. Fit of the SEM (multi-group analysis - second model)**

Index	Result	Threshold
CMIN/DF	1.264	< 3
GFI	0.955	> 0.9
AGFI	0.922	> 0.9
CFI	0.989	> 0.9
NFI	0.952	> 0.9
RMSEA	0.026	< 0.10

<b>Group 1 (Entrepreneurs)</b>	Estimate	p-value
Retirement Behavior - > Retirement Benefit	0.396	0.032
Retirement Behavior - > Health Status	0.97	0.016
Retirement Behavior - > Financial Reward	0.341	0.023
Retirement Behavior - > Short-term Goal	0.012	0.939
Short-term Goal - > Long-term Goal	0.356	0.001

<b>Group 2 (Wage Employees)</b>	Estimate	p-value
Retirement Behavior - > Retirement Benefit	0.662	***
Retirement Behavior - > Health Status	0.622	***
Retirement Behavior - > Financial Reward	0.709	***

Retirement Behavior - > Short-term Goal	0.417	***
Short-term Goal - > Long-term Goal	0.451	***

\*\*\**p-value* < 0.001, \*\* *p-value* < 0.005

### SEM multi-group analysis results

By using the AMOS program to test the multi-group analysis in the SEM, the result from the first model shows that the estimate of retirement behavior - > parental status = -0.052, which is negative, so we designed a new model without the parental status factor included.

## 6. Discussion and Conclusion

In this research, we compared the financial planning behavior of entrepreneurs and wage employees using the estimate table from SEM before separating into two groups. H1-H6 are all statistical significant. Hypotheses seventh shows that entrepreneurs and wage employees are different financial planning behaviors from the P-value of the model comparison in multigroup analysis. In terms of the results of CFA by using AMOS, the p-values are all significant and the estimate numbers are above the threshold of 0.7. The model fit of CFA is greater than the threshold and the model comparison p-values are all under 1%. The SEM p-values resulting after separating the groups all passed; however, after separation into two groups the result changed. Some of the p-values from the entrepreneur group were not significant but, on the other hand, the p-values from the wage employees group were all significant.

Going forward, this research could be continued and expanded to include a bigger sample size, from ESAN to the entire population of Thailand to better know the actual behavior of these two types of workers and their differences in terms of financial planning. Due to this research being conducted only in provinces in the north-eastern part of Thailand, it might not be reflective of the actual population nor represent the actual process of financial planning. Future research should cover more areas for example north and south area of Thailand to get more accurate details about this topic. The end results of this research are beneficial for all types of workers, helping employees to prepare themselves for retirement before retiring. This research provides clear details of how both entrepreneurs and wages employees should plan and organize their finances before the age of retirement in addition to the differences in ways to financially plan for the future. People reading this research will acknowledge which factors should be considered that will affect their financial plan in the short- and long-run.

## 8. References

- Agnew, J., Balduzzi, P., & Sunden, A. (2003). Portfolio choice and trading in a large 401 (k) plan. *American Economic Review*, 93(1), 193-215.
- Atchley, R. C. (1976). *The sociology of retirement*. Halsted Press.
- Bodie, Z. (2003). Thoughts on the Future: Life-Cycle Investing in Theory and Practice. *Financial Analysts Journal*, 24-29.
- Cottrell, F., & Atchley, R. C. (1969). *Women in retirement: A preliminary report*.
- Davies, H., & Joshi, H. (1995). Social and family security in the redress of unequal opportunities. *The economics of equal opportunities*, 313-34.
- Davis-Friedmann, D. (1991). *Long lives: Chinese elderly and the communist revolution*. Stanford University Press.
- Diamond, P. A., & Hausman, J. A. (1984). Individual retirement and savings behavior. *Journal of Public Economics*, 23(1), 81-114.
- Foster, T. B., & Kleit, R. G. (2015). The changing relationship between housing and inequality, 1980-2010. *Housing Policy Debate*, 25(1), 16-40.

- Gerrans, P., Clark-Murphy, M., & Speelman, C. (2010). Asset allocation and age effects in retirement savings choices. *Accounting & Finance*, 50(2), 301-319.
- Hulin, C. L., Roznowski, M., & Hachiya, D. (1985). Alternative opportunities and withdrawal decisions: Empirical and theoretical discrepancies and an integration. *Psychological bulletin*, 97(2), 233.
- Ikels, Charlotte. 1997. "Long-Term Care and the Disabled Elderly in Urban China." Pp. 452-71 in *The Cultural Context of Aging: Worldwide Perspectives* (2nd ed.), edited by J. Sokolovsky. Westport, CT: Bergin and Garvey.
- Judge, T. A., Cable, D. M., & Higgins, C. A. (2000). The employment interview: A review of recent research and recommendations for future research. *Human Resource Management Review*, 10(4), 383-406.
- Johar, M., Jones, G., & Savage, E. (2012). Healthcare expenditure profile of older Australians: evidence from linked survey and health administrative data. *Economic Papers: A journal of applied economics and policy*, 31(4), 451-463.
- Nadelson, T. (1969). SURVEY OF LITERATURE ON ADJUSTMENT OF AGED TO RETIREMENT. *Journal of Geriatric Psychiatry*, 3(1), 3-20.
- Ransom, R., & Sutch, R. (1988). Capitalists without capital: The burden of slavery and the impact of emancipation. *Agricultural History*, 62(3), 133-160.
- Samuelson, P. A., 1991, Long-run risk tolerance when equity returns are mean regressing pseudoparadoxes and vindication of businessman's risk, in: W. Brainard, W. Nordhaus, H. Watts, eds., *Money, Macroeconomics and Economic Policy* ( MIT Press, Cambridge), 181– 200.
- Samuelson, P. A., 1994, The long-term case for equities and how it can be oversold, *Journal of Portfolio Management* 21 (1), 15– 24.
- Shanas, E. (1972). Adjustment to retirement: Substitution or accommodation. *Retirement. New York: Behavioral Publications*, 219-243.
- Stock, J., & Wise, D. (1990a). Pensions, the Option Value of Work, and Retirement. *Econometrica*, 58(5), 1151-1180.
- Stock, J. H., & Wise, D. A. (1990b). The pension inducement to retire: An option value analysis. In *Issues in the Economics of Aging* (pp. 205-230). University of Chicago Press, 1990.
- Venti, S. F., & Wise, D. A. (2000). *Choice, chance, and wealth dispersion at retirement* (No. w7521). National Bureau of Economic Research.
- Walster, E., Berscheid, E., & Walster, G. W. (1976). New directions in equity research. In *Advances in experimental social psychology* (Vol. 9, pp. 1-42). Academic Press.
- Wennberg, K., Wiklund, J., DeTienne, D. R., & Cardon, M. S. (2010). Reconceptualizing entrepreneurial exit: Divergent exit routes and their drivers. *Journal of Business Venturing*, 25(4), 361-375.
- Wu, Cangping. 1991. *The Aging of Population in China*. Malta: Union Print Co. Ltd.

## ACCOMMODATION FACTORS THAT ENHANCE NU STUDENTS STUDYING AS SEEN IN THEIR GPA RESULTS

**Thananya Chimnon<sup>1</sup> Sarunya Tarat<sup>2</sup>, and Pirakorn Seekhem<sup>3</sup>**

English for Business Communication Program<sup>1</sup>  
Naresuan University International College  
Pitsanulok 65000, Thailand  
Email: Tchimon19@gmail.com

English for Business Communication Program<sup>2</sup>  
Naresuan University International College  
Pitsanulok 65000, Thailand  
Email: sarunyat@nu.ac.th

English for Business Communication Program<sup>3</sup>  
Naresuan University International College  
Pitsanulok 65000, Thailand  
Email: pirakorns@nu.ac.th

### **Abstract**

The purposes of this study were to present whether an accommodation factor impacted on second year GPAs of those third year students or not, and if living alone or living with roommates is an important factor. The results can be of benefit to future students, their parents, and also to the owners of student dormitories. According to the framework of this study, the respondents were 366 Thai students from Health Sciences, Science and Technology, and Social Sciences Clusters excluding Medical Cluster and international students. Furthermore, the general information of participants from the survey questionnaires was analyzed by using the frequency and percentage methods. The opinion levels of NU students who lived alone or those who had roommate(s) were analyzed by T-Test method.

**Keywords:** Accommodation; Academic performance; GPA

### **1. Introduction**

There is a belief that living on campus or in dormitories often helps with the convenience of studying at university (McEwan, 2006). According to Murrayz (2010), “It is widely believed that students can acquire academic benefits from living on campus. It will help students make academic progress, and be more capable of achieving a high level of academic performance” (p.1). Therefore, most universities in Thailand require students to live on campus during their first year with few exceptions. Living in residence halls is often anecdotally associated with gains in students’ academic development as noted by Anne Rinn (2004, p.68). The university wants the freshmen to make academic progress and be more able to achieve a high level of academic performance. Typically, the first year students have to live with their new friends or roommates. In one room, they have to live with 2-4 people. Despite its being widely known that students in university have to live in a dormitory, there are inherent difficulties in estimating the impact that living away from home has on student performance. With the large number of students in the dorms, the result might be to decrease their academic performance rather than improve it. There could be many causes, such as interfering with reading in the dorm, lack of concentration on work or copying assignments from friends without using the knowledge of the students themselves. Typically, when they are in second year, they will have to choose “where they live and who they live with. The impact of the residential environment in theories of college student development is often emphasized, according to Rinn (2004, p.1). So, they have more responsibility on decision making. It

means if they could choose where they want to live, it might help them improve their study as well. Lastly, all of these factors involved with student accommodations may help to improve the living arrangements of students who go to university.

This research investigated the opinions of the students of Naresuan University who are beginning their third year of undergraduate study, toward the accommodation factors which might affect their study performance. This research also surveyed if the students improved their study or not when they lived with roommates or lived alone off campus after their mandatory first year of residence in university housing. The focus was placed only on the students' opinions of dormitory life as regards their academic performance during their second year at Naresuan University. The results can be of benefit to future students, their parents, and also to the owners of student-housing business.

## **2. Research Objectives**

2.1 To explore how NU students rated the accommodation factors that affect their studying when living off campus alone

2.2 To explore know how NU students rated the accommodation factors that affect their studying when living off campus with roommate(s).

2.3 To know the difference in the GPAs of NU students who live alone and those who have roommate(s).

## **3. Literature Review**

According to James Murrayz (2010, p.1), "It is widely believed that students can acquire academic benefits from living on campus. It will help students make academic progress, and be more capable of achieving a high level of academic performance." Some students have homes at a distant and some come from other provinces. Therefore, living near the campus will be convenient for them. Likewise, Anne Rinn (2004, p.67) said that the residential environments are typically studied in relation to students' academic development and social development. Consequently, they have to choose how they live and who they live with. It is an important part of living outside the classroom and another important factor for the student's quality of life.

It is evident nationwide that some housing facilities inside campus in Thailand are in major disrepair and are virtually obsolete when faced with the increasing need of today's college students. In order to accommodate more students and attract them to campus, universities are developing and constructing new housing facilities but university housing is limited. Naresuan University can only accommodate first year students, medical and nursing students.

There are many types of accommodation around the university, such as houses for rent and apartments. The choice of where to live is very essential for the student's quality of life. Especially, a suitable living environment in the accommodation can affect their study performance. The living environment can be examined from various standpoints, such as an architectural, economic, social and cultural perspective as reported by Muslim et al. (2012, p.604). Unsurprisingly living in rental apartments becomes the reasonable alternative for many students. However, regarding location, price, size of the room, generally apartments near the university have a very high price. This type of apartments is often wanted and fully booked very quickly. Consequently, students whose parents have lower incomes will not be able to live at a nearby residence, and must stay at a residence far away from university. This means they will take longer time going to the university than others staying at nearby apartments.

Beside mentioned features of rental apartments, other influential factors for living off campus should be considered for students themselves and their parents. People in the same accommodation or community are also part of the living environment which can affect the living quality. Some apartment owners or managers act as the student's parents, and are willing to support new and current residents as family members. However,

another key part of living is roommates. If students have supportive roommates, they will become their family. Conversely, if they have roommates who they cannot get along with, it can affect their lives. Cristen I. Marek et al. (2009, p.1) revealed the data from his study indicating that roommates who had more positive initial interactions were more likely to continue living together. On the other hand, if they have a disrespectful or annoying roommate, they are likely to suffer from unhealthy environment.

The roommates who were similar in their communication traits would express more satisfaction with and affinity for their roommates, according to Matthew M. Martin & Carolyn M. Anderson (1995, p.46). Hence, if students have roommates, they tend to develop themselves in several ways, such as academic performance, social life, and communication. Social constructivism has been studied by many educational psychologists, who are concerned with its implications for teaching and learning. According to Social Constructivism, people work together to construct artifacts, artifacts are created through the social interactions of a group, and an individual's learning takes place because of his or her interacts in a group.

On the other hand, the combination of a large number of students may result in a decrease in their academic performance rather than improve their academics, such as interfering with reading in the dorm, lack of concentration on work or copying assignments from friends without using the knowledge of the students themselves. Some students who never separated from their families may not be prepared when they have to come and live on and off campus with others. Being in the same living space with other people can also be overwhelming and frustrating. For some students, it is difficult learning or figuring out how to adjust comfort levels and trust with a stranger, or someone they are friends with and have never lived with before. Roommate similarity on three communication variables: willingness to communicate, interpersonal communication competence, and verbal aggressiveness are important as stated in Martin and Anderson (1995, p.47).

#### 4. Research Methodology

##### 4.1 Population and Sampling

This study is a quantitative study that will survey the opinions of university students who live off the campus by using questionnaires as the data collection instrument from a sampling group. The population was 4,296 3rd-year Naresuan University students (in August 2018) aged 20 and older.

Naresuan University is a comprehensive university comprising 16 faculties and 2 colleges, 2 schools, and 1 institute. In this research, Naresuan University third-year undergraduate students were divided into 3 clusters, namely the Health Sciences Cluster, Science and Technology Cluster, and Social Sciences Cluster. The total number of NU undergraduate 3rd-year students (in August 2018), excluding medicine, nursing, and dentistry, was 4,296.

Taro Yamane (Yamane, 1973) formula with 95% confidence level and stratified random sampling were used to calculate the sample size and to separate students into clusters.

**Taro Yamane (Yamane, 1973) formula with 95% with the acceptable sampling error 0.05**

$$n = \frac{N}{1 + Ne^2}$$

n = Sample size

N = Total of population

e = The acceptable sampling error

The sample size is 366 3rd-year students studying in the Health Sciences Cluster, Science and Technology Cluster, and Social Sciences Cluster.

The stratification is the process of dividing members of the population into homogeneous subgroups before sampling. 122 students were chosen from each cluster, totaling 366 students from three mentioned clusters. Only two faculties were randomly chosen from each cluster and 61 students were randomly chosen from each faculty.

Faculties which do not have undergraduate students, Faculties of Medicine, Nursing, and Dentistry whose students stay in campus housing for the whole duration of their study programs, as well as international students were excluded. Finally, the researcher randomly distributed the questionnaires to the students and gave them time to complete the survey and collect the questionnaires.

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{4296}{1 + 4296 \times (0.05)^2}$$

$$n = \frac{4296}{1 + 4296 \times 0.0025}$$

$$n = \frac{4296}{11.74}$$

$$n = 365.92845$$

$$n = 366$$

Health Sciences Cluster	Science and Technology Cluster	Social Sciences Cluster
Faculty of Allied Health Sciences Faculty of Public Health Faculty of Medical Science Faculty of Pharmaceutical Sciences	Faculty of Agriculture Faculty of Science Faculty of Architecture Faculty of Engineering	Faculty of Business, Economics and Communications Faculty of Social Sciences Faculty of Education Faculty of Law Faculty of Humanities NUIC
122 students	122 students	122 students
Total number of participants is 366 students.		

#### 4.2 Research Instrument

Based on the review of the literature regarding student dormitories and roommates, the researcher constructed an Accommodation Questionnaire. The questionnaire is composed of 3 sections: (1) Asking if they live alone or with roommate(s), (2) 13 statements for students who lived alone using a 5 point Likert rating scale followed by a self-reporting of the GPA for second-year study and (3) 13 statements for students who lived with roommate(s) followed by a self-reporting of GPA for second-year study.

#### 4.3 The variables of this study are independent and dependent variables as follows.

Independent variables	Dependent variables
1. Living with roommates 2. Living alone	1. Second year grade average result 2. Accommodation Questionnaire result

#### 4.4 Data Collection

The printed surveys were distributed during lunchtime of weekdays. Participants took around 5-10 minutes to do the questionnaires. The researcher respected the participants by asking for their willingness to give the information. The students who accepted to give information were asked to tell about their opinions toward the accommodation and their daily life while living there. They were also asked to report their GPA of their second-year study. However, if the students did not want to give the information, they could refuse to accept the questionnaire. If they wanted to do the questionnaire, the information would be confidential. After 6 months, the questionnaires were destroyed.

#### 4.5 Data Analysis

After the questionnaires were collected, they were separated into living-alone respondents and living-with-roommate respondents. Frequency, Percentage, Mean Score and Standard Deviation were used to analyze the respondents' answers to the questionnaires. T-test was used to test the differences between the GPA scores of the living-alone group and the living-with-roommate group. The SPSS program was employed for statistical data analysis.

### 5. Results

The general information of participants from the survey questionnaires was analyzed by using the frequency and percentage method. The opinion levels of NU students who lived alone or those who had roommates were processed, using Frequency, Percentage, Mean ( $\bar{X}$ ) and Standard Deviation (S.D.). Additionally, GPAs of the respondents section were processed by T-Test method.

#### 5.1 General Information of Participants

The group of the population was 366 third-year students studying at faculties in Health sciences cluster, Science and technology cluster, and Social sciences cluster, randomly chosen to answer the survey questionnaires. It was found that the portion of students living alone was bigger than ones living with roommate(s). 260 students or 71% of all participants lived alone and 106 students or 29% lived with roommate(s).

#### 5.2 Accommodation (Frequency and Percentage)

Most students (130 of 260 students who lived alone off campus or 50% of this group) strongly agreed that "They really liked living alone." 126 students or 48.5% strongly agreed that "Living alone made them concentrate." 107 students or 41.2% strongly agreed that "They preferred to be paying for the apartment by myself." 97 students or 37.3% agreed that "Living alone let them save money, such as water bill and electronic bill." 99 students or 38.1% agreed that "They often cleaned their room." 96 people or 36.9% strongly agreed that "Living alone make my room nice and orderly."

Accommodation (Live Alone)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	5	4	3	2	1
1. I really like living alone.	<b>130 / 50%</b>	88 / 33.8%	36 / 13.8%	6 / 2.3%	-
2. Living alone makes me concentrate.	<b>126 / 48.5%</b>	90 / 33.4%	40 / 15.4%	2 / 0.8%	-



3. I prefer to be paying for the apartment by myself.	<b>107 / 41.2%</b>	97 / 37.3%	44 / 16.9%	11 / 4.2%	1 / 0.4%
4. Living alone lets me save money, such as water bill and electricity bill	86 / 33.1%	<b>97 / 37.3%</b>	60 / 23.1%	13 / 5%	4 / 1.5%
5. I often clean my room.	83 / 31.9%	<b>99 / 38.1%</b>	61 / 23.5%	16 / 6.2%	1 / 0.4%
6. Living alone make my room nice and orderly.	<b>96 / 36.9%</b>	94 / 36.2%	61 / 23.5%	9 / 3.5%	-
Total 260 Frequencies / 100 Valid percent					

On the other hand, most students (48 of 106 students who lived with roommate(s) off campus or 45.3% of this group) agreed that “They really like having a roommate.” 50 students or 42.2% strongly agreed that “They shared the expenses with their roommate (room fee, water, electricity, etc.).” 49 students or 46.2% strongly agreed that “Living with a roommate let them save money.” 36 students or 34% agreed that “Their roommate and they often cleaned the room together.” 42 students or 39.6% agreed that “Their roommate and they often made the room nice and orderly.” 43 students or 40.6% agreed that “Their roommate took care of them if they got sick.”

Accommodation (Live with roommates)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	5	4	3	2	1
1. I really like having a roommate.	36 / 34%	<b>48 / 45.3%</b>	22 / 20.8%	-	-
2. I share the expenses with my roommate (room fee, water, electricity, etc.).	<b>50 / 42.2%</b>	37 / 34.9%	16 / 15.1%	3 / 2.8%	-
3. Living with a roommate lets me save money.	<b>49 / 46.2%</b>	40 / 37.7%	16 / 15.1%	1 / 0.9%	-
Accommodation (Live with roommates)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	5	4	3	2	1
4. My roommate and I often clean the room together.	30 / 28.3%	<b>36 / 34%</b>	33 / 31.1%	6 / 5.7%	1 / 0.9%
5. My roommate and I often make the room nice and orderly.	25 / 23.6%	<b>42 / 39.6%</b>	30 / 28.3%	6 / 5.7%	3 / 2.8%
6. My roommate takes care of me if I get sick.	40 / 37.3%	<b>43 / 40.6%</b>	16 / 15.1%	6 / 5.7%	1 / 0.9%
Total 106 Frequencies / 100 Valid percent					

### 5.3 Accommodation (Mean and S.D.)

The items that students who lived alone off campus rated with the highest scores were item 1 “They really liked living alone.” and item 2 “Living alone made them concentrate.” as shown in the below table.

	Accommodation (Living Alone)	Mean ( $\bar{x}$ )	S.D.	Rank
1.	I really like living alone.	<b>4.3154</b>	<b>.79608</b>	<b>1</b>
2.	Living alone makes me concentrate.	<b>4.3154</b>	<b>.75628</b>	<b>1</b>
3.	I prefer to be paying for apartment by myself.	4.1462	.87533	3
4.	Living alone let me save money such as water bill, electronic bill.	3.9538	.94939	5
5.	I often clean my room.	3.9500	.91396	6
6.	Living alone make my room nice and orderly.	4.0654	.86075	4

The items that students who lived with roommate(s) off campus rated with the highest scores was item 3 “Living with a roommate let them save money.” and the second highest was item 2 “They shared the expenses with their roommate(s).” as shown in the below table.

	Accommodation (Living with roommate)	Mean ( $\bar{x}$ )	S.D.	Rank
1.	I really like having a roommate	4.1321	.73128	3
2.	I share the expresses with my roommate (room fee, water, electricity, etc)	<b>4.2642</b>	<b>.82001</b>	<b>2</b>
3.	Living with a roommate lets me save money.	<b>4.2925</b>	<b>.75551</b>	<b>1</b>
4.	My roommate and I often clean the room together.	3.8302	.94084	5
5.	My roommate and I often make the room nice and orderly.	3.7547	.97406	6
6.	My roommate takes care of me if I get sick.	4.0849	.91670	4

#### 5.4 Academic Performance (Frequency and Percentage)

Most students (119 of 260 students who lived alone off campus or 45.8 % of this group) agreed that “Reading alone made them concentrate.” 107 students or 41.2% agreed that “They always did their homework by themselves.” 107 students or 41.2% agreed that “Studying alone made them get more accurate information.” 93 students of 35.8% agreed that “Paying close attention in the class room means I do not have to consult with friends.” 98 students or 37.7% agreed that “They were usually active to learn by themselves.” 85 students or 32.7% agreed that “They had better grades than first year.” 111 students or 42.7% agreed that “They could learn and develop by themselves.”

Accommodation (Live Alone)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	5	4	3	2	1
7. Reading alone makes me concentrate.	98 / 37.7%	<b>119 / 45.8%</b>	35 / 13.5%	6 / 2.3%	2 / 0.8%
8. I always do homework by myself	63 / 24.2%	<b>107 / 41.2%</b>	75 / 28.8%	11 / 4.2%	4 / 1.5%

9. Studying alone makes me get more accurate information.	65 / 25%	<b>107 /</b> <b>41.2%</b>	66 / 25.4%	17 / 6.5%	5 / 1.9%	On
10. Paying close attention in the class room means I do not have to consult with friends.	52 / 20%	<b>93 /</b> <b>35.8%</b>	77 / 29.6%	27 / 10.4%	11 / 4.2%	
11. I am usually active to learn by myself.	57 / 21.9%	<b>98 /</b> <b>37.7%</b>	78 / 30%	21 / 8.1%	6 / 2.3%	
12. I have better grades, more than first year.	59 / 14.2%	<b>85 /</b> <b>32.7%</b>	80 / 30.8%	28 / 10.8%	8 / 3.1%	
13. I can learn and develop by myself.	60 / 23.1%	<b>111 /</b> <b>42.7%</b>	73 / 28.1%	12 / 4.6%	4 / 1.5%	
Total 260 Frequencies / 100 Valid percent						

other hand, most students (46 of 106 students who lived with roommate(s) off campus or 43.4% of this group) agreed that “Their roommate and they often advised one another about learning.” 39 students or 36.8% neither agreed nor disagreed that “Their roommate and they usually did home work together.” 40 students or 37.3% agreed that “Their roommate and they helped each other to find information and get more accurate information.” 52 students or 49.1% agreed that “Their roommate and they were always active about learning.” 47 students or 44.3% agreed that “Their roommate and they got better grades than first year.” 36 students or 34% agreed that “Their roommate and they often read books together.” 46 students or 43.4% strongly agreed that “Their roommate and they had a good relationship with each other.”

Accommodation (Live with roommates)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	5	4	3	2	1
7. My roommate and I often advise one another about learning.	31 / 29.2%	<b>46 /</b> <b>43.4%</b>	25 / 23.6%	3 / 2.8%	1 / 0.9%
8. My roommate and I usually do home work together.	17 / 16%	36 / 34%	<b>39 /</b> <b>36.8%</b>	6 / 5.7%	8 / 7.5%
9. My roommate and I helped each other to find information and get more accurate information.	22 / 20.8%	<b>40 /</b> <b>37.3%</b>	31 / 29.2%	9 / 8.5%	4 / 3.8%
10. My roommate and I are always active about learning.	17 / 16%	<b>52 /</b> <b>49.1%</b>	30 / 28.3%	6 / 5.7%	1 / 0.9%
11. My roommate and I got better grades than first year.	18 / 17%	<b>47 /</b> <b>44.3%</b>	30 / 28.3%	8 / 7.5%	3 / 2.8%
12. My roommate and I often read books together.	18 / 17%	<b>36 /</b> <b>34%</b>	33 / 31.1%	12 / 11.3%	7 / 6.6%
13. My roommate and I have a good relationship with each other.	<b>46 /</b> <b>43.4%</b>	37 / 34.9%	18 / 17%	5 / 4.7%	-
Total 106 Frequency / 100 Valid percent					

### 5.5 Academic Performance (Mean and S.D.)

The items that students who lived alone off campus rated with the highest score was item 1 “Reading alone makes me concentrate.” and the second highest was item 2 “They always did homework by themselves.” as shown in the below table.

	Academic (Living Alone)	Mean ( $\bar{x}$ )	S.D.	Rank
7.	Reading alone makes me concentrate	<b>4.1731</b>	<b>.80350</b>	<b>1</b>
8.	I always do homework by myself	<b>3.8231</b>	<b>.90015</b>	<b>2</b>
9.	Studying alone makes me get more accurate information	3.8077	.95129	4
10.	Paying close attention in the class room means I do not have to consult with friends.	3.5692	1.05405	7
11.	I am usually active to learn by myself.	3.6885	.97807	5
12.	I have better grades, more than first year.	3.6115	1.04672	6
13.	I can learn and develop by myself	3.8115	.89565	3

The items that students who lived with roommate(s) off campus rated with the highest scores was item 13 “Their roommate(s) and they had a good relationship with each other.” and the second highest was item 1 “Their roommate(s) and they often advised on another about learning.” as shown in the below table.

	Academic (Living with roommate)	Mean ( $\bar{x}$ )	S.D.	Rank
7.	My roommate and I often advise on another about learning	<b>3.9717</b>	<b>.85588</b>	<b>2</b>
8.	My roommate and I usually do home work together.	3.4528	1.07022	6
9.	My roommate and I helped each other to find information and get more accurate information	3.6321	1.02656	5
10.	My roommate and I are always active about learning	3.7358	.83154	3
11.	My roommate and I got better grades than first year.	3.6509	.94660	4
12.	My roommate and I often read books together.	3.4340	1.10427	7
13.	My roommate and I have a good relationship with each other	<b>4.1698</b>	<b>.87800</b>	<b>1</b>

### 5.6 GPAs of live-alone students and live-with-roommate students (Mean and S.D.)

It was found that the mean of the second-year GPA of live-alone students ( $\bar{x}$ =2.9322, S.D. =1.86053) was in the same level with and the mean of the GPA of live-with-roommate students ( $\bar{x}$ =2.9366, S.D. =0.47827). Basically, the data between the group of students who lived alone and those who lived with roommate(s) had no significant difference on statistic. However, the Standard Deviation of the respondents living with roommate(s) or S.D. =1.86053, showed the high variance which indicated that their GPAs were spread out from the mean and from one another.

## 6. Discussion and Conclusion

This study was conducted in the purpose of finding out how NU students rated the accommodation factors that affect their studying when living off campus alone or when living off campus with roommate(s). Also, it was to investigate if the accommodation arrangement affected the result of their academic performance.

### 6.1 Research Question 1: How do NU students rate the accommodation factors that affect studying when living off campus alone?

There were 260 participants, or 71% of all participants, who lived alone off campus in their second year of study. According to the results, in Accommodation Section, the majority of participants living off campus alone “agreed” that they really liked living alone, living alone let them save money such as water bill and electricity bill, and they often cleaned their room. Moreover, the majority of these participants “strongly agreed” that living alone made them concentrate, they preferred to pay for their apartment themselves, and living alone made their room nice and orderly.

As Sangkapan and Laeheem (2011), beside the different family background, different accommodation also affects study habits. Importantly, the students participating in this study stated that the place where they live was very important for the quality of their life (living alone made them concentrate, and living alone let them save money). The results were consistent with Hamblet, E (2016) who stated that some students believe that the accommodations are necessary to their success, and some may believe that accommodations are all they need to be successful in college.

According to the results, in Academic Performance Section, the majority of participants living off campus alone “agreed” that reading alone made them concentrate, they always did homework by themselves, studying alone made them get more accurate information, paying close attention in the class room means they did

**Group Statistics**

	Group	N	Mean	Std. Deviation	Std. Error Mean
GPA	Lived alone	260	2.9322	1.86053	.11539
	Lived with roommates	106	2.9366	.47827	.04645

consult with friends, they were usually active to learn by themselves, they had better grades than first year, they could learn and develop by themselves.

The finding of Muslim (2012) stated that suitable living and a good environment in the dormitory can affect a student’s performance (p.604). Obviously, the majority of student who lived alone stated that when they lived alone they could better concentrate on reading books and doing homework.

### 6.2 Research Question 2: How do NU students rate the accommodation factors that affect their studying when living off campus with roommate(s)?

There were 106 participants, or 71% of all participants, who lived with roommate(s) off campus in their second-year of study. According to the results, in Accommodation Section, the majority of participants living off campus alone “agreed” that they really like having roommate(s), their roommate(s) and they often cleaned the room together, their roommate(s) and they often made the room nice and orderly, their roommate(s) took care of them if they got sick. Moreover, the majority of these participants “strongly agreed” that they shared expenses with their roommate(s) (water fee, electricity fee, etc) and living with roommate(s) let them save their money.

According to Bozick (2007), using data from the beginning postsecondary students' study, it explored the effect of economic resources on the paid work experiences and living arrangements of first-year college students. Students from low-income families are more likely to work for school-related expenses and to live at home during the first year of college. Expectedly, living with roommate(s) who helped sharing the expenses could be one of their choices for those students whose parents had lower incomes.

According to the results, in Academic Performance Section, the majority of participants living off campus with roommate(s) "neither agreed or disagreed" that their roommate(s) and they usually did homework together, "agreed" that their roommate(s) and they often advised one another about learning, they helped each other to find information and get more accurate information, they were active about learning, they got better grades than first year, and they often reads book together. Moreover, the majority of these participants "strongly agreed" that that their roommate(s) and they had a good relationship with each other.

The relationships in college are important as also seen from the result of the study by Marek (2006) which showed that roommates who had initial good interactions had a better chance to continue living together. He also added that developing and having these relationships and/or living situations with people assists in gaining levels of trust, respect, and adaptation that would help in future relationships. It could be implied that the students who had a good relationship with roommate(s) also had a good community. The result from this study showed that those living with roommate(s) often advised on each other about learning and helped each other to get accurate information. It could be said that the roommates can help the participants be more active on learning and communication.

### **6.3 Research Question 3: Is there a difference in the GPAs of NU students who live alone and those who live with roommate(s)?**

According to the results, it was found that the mean of second-year GPAs of students who lived alone and who lived with roommate(s) were in the same level and had no significant difference on statistic, which were about 2.9 from 4.0 or ( $\bar{x}$ =2.9322, S.D. =1.86053), and ( $\bar{x}$ =2.9366, S.D. =0.47827) respectively.

Similar to the finding of Humphrey and Marja J. B (2010), they have stated that no relationship was found between the use of accommodations and GPA, or between the use of services and GPA, as many students reported selectively utilizing accommodations and services, which was interpreted to indicate self-determination development. Hence, it could be said that the academic growth might resulted from other several factors.

### **6.4 Conclusion**

This study was conducted to investigate factors regarding accommodation arrangement that affect student perspectives of how dorm life can enhance NU student's academic achievement as seen in their GPA result, and if living alone or living with roommate(s) is an important factor. The result indicated that the students who lived alone had perception that they really liked to live alone and living alone could make them concentrate. In addition, the result indicated that the students who lived with roommates had perception that they had a good relationship with their roommates and often shared about their learning to each other. They both believed in the benefits of their selected choice. The mean of GPAs of students who lived alone and who lived with roommate(s) were in the same level and had no significant difference on statistic; however, the mean of GPAs of students who lived alone had a higher variance.

## **8. References**

Astin, A. W. (1973). The impact of dormitory living on students. *The Educational Record*, 54, 204-210.

- Bozick, R. (2007). Making It through the First Year of College: The Role of Students' Economic Resources, Employment, and Living Arrangements, 261-285.
- Carrell, S. E., Fullerton, R. L., & West, J. E. (2009). Does your cohort matter? Measuring peer effects in college achievement. **Journal of Labor Economics**, 27(3), 439-464.
- Cristen I Marek (2009). An Exploratory Investigation of the Relationship Between Roommates' First Impressions and Subsequent Communication Patterns.
- De Araujo, P., & Murray, J. (2010). Estimating the effects of dormitory living on student performance. Caep Working Papers 2010-002 Classification-C, Center for Applied Economics and Policy Research, Economics Department, Indiana University Bloomington.
- Dies, R. R., & Sadowsky, R. (1974). A brief encounter group experience and social relationships in a dormitory. **Journal of Counseling Psychology**, 21(2), 112.
- Eisenberg, D., Golberstein, E., & Whitlock, J. L. (2014). Peer effects on risky behaviors: New evidence from college roommate assignments. **Journal of Health Economics**, 33, 126-138.
- Erb, S. E., Renshaw, K. D., Short, J. L., & Pollard, J. W. (2014). The importance of college roommate relationships: A review and systemic conceptualization. **Journal of Student Affairs Research and Practice**, 51(1), 43-55.
- Flowers, A. (2016). Roommate and relationship difficulties. Health Promotion Programming Photovoice Research Project, Department of Applied Health Sciences, Murray State University, Murray, Kentucky.
- Hamblet, E. (2016). Are academic accommodations all students need? Disability Compliance for Higher Education, <https://doi.org/10.1002/dhe.30164>
- Humphrey, M. (2010). The relationship of self-determination skills, use of accommodations, use of services to academic success in undergraduate juniors and seniors with learning disabilities. Google Scholar. Retrieved 4 April 2018, from <https://drum.lib.umd.edu/handle/1903/11297>
- Logan, C. H. (1990). Private prisons: Cons and pros. Oxford, U.K.: Oxford University Press.
- Marek, C. I., Wanzer M. B., and Knapp, J. L. (2009). An exploratory investigation of the relationship between roommates' first impressions and subsequent communication patterns. Google Scholar. Retrieved 1 April 2018, from [https://www.researchgate.net/profile/Melissa\\_Wanzer](https://www.researchgate.net/profile/Melissa_Wanzer)
- Martin, M. M. & Anderson, C. M. (1995). Roommate similarity: Are roommates who are similar in their communication traits more satisfied? Google Scholar. Retrieved 4 April 2018, from <https://www.tandfonline.com/doi/abs/10.1080/08824099509362038>
- McGregor, P. (2007). Do we want these roommates? **Interface: The Journal of Education, Community and Values**, 7(1).
- McEwan, P. J. & Soderberg, K. A. (2006). Roommate effects on grades: Evidence from first-year housing assignments. **Research in Higher Education**, 47(3), 347-370.
- Muslim, M.H., Karim H. A., and Abdullah, I. C. (2012) Satisfaction of students' living environment between on-campus and off-campus settings: A conceptual overview, presented at the ASIA Pacific International Conference on Environment-Behaviour Studies, Mercure Le Sphinx Cairo Hotel, Giza, Egypt, 31 October-2 November 2012.
- Özdemir, U. & Tuncay, T. (2008). Correlates of loneliness among university students. **Child and Adolescent Psychiatry and Mental Health**, 2(1), 29.
- Rinn, A. (2004). Academic and social effects of living in honors residence halls. **Journal of the National Collegiate Honors Council**, 66-79.

- Sacerdote, B. (2001). Peer effects with random assignment: Results for Dartmouth roommates. **The Quarterly Journal of Economics**, *116*(2), 681-704.
- Sangkapan,J & Laeheem ,K. ( 2011) .Factors Affecting Students Academic Achievement into Probation Status at Prince of Songkla University: The 3rd International Conference on Humanities and Social SciencesFaculty of Liberal Arts, Prince of Songkla University, April 2, 2011
- Stinebrickner, R.&Stinebrickner, T. R. (2006). What can be learned about peer effects using college roommates? **Journal of Public Economics**, *90*(8-9), 1435-1454.
- Wong, S. (2011). Measuring association between library instruction and graduation GPA. *College and Research Libraries*, *72* (5), 464-473.



## Employee's perception toward developing sustainable procurement in oil and gas industry

Passarin Phalitnonkiat<sup>1</sup> and Phimonsiri Puthong<sup>2</sup>

Business Administration Program<sup>1</sup>  
Burapha University International College  
Chonburi 20131, Thailand

Email: [passarin@go.buu.ac.th](mailto:passarin@go.buu.ac.th)

Business Administration Program<sup>2</sup>  
Burapha University International College  
Chonburi 20131, Thailand Email: [phimonsiri.film@gmail.com](mailto:phimonsiri.film@gmail.com)

### Abstract

A sustainable procurement in oil and gas industry was pointed as essential matters for various businesses to success, by assisting firms in saving costs, reducing waste and improving business' reputation and relationships; however, to achieve success, employees were driven factors that can leverage dimension of sustainability. This study aimed to measure employees' perception levels toward sustainable procurement in their companies and to suggest companies in implementing knowledge of developing sustainable procurement to their employees. A paper-based survey was administrated by 150 with a returned of 138 questionnaires from 8 oil and gas companies located mainly at Bangkok and Rayong. The questionnaire consisted of demographic data, and perception levels toward sustainable procurement in the organizations. A frequency was adopted to analyze the data. The findings presented 3 aspects explained and educated more to employees to be aware of, which were green procurement, labor practices and human rights, and business ethics.

**Keywords:** sustainable procurement, sustainability, oil and gas industry, perception,

### 1. Introduction

Driving success can describe challenging facets by creating competitive advantages, building trust, and developing market opportunities. Many processes and working platforms have been designed for key managers and other employees to overcome challenges facing organizations today. Yet, modern organizations received a pressure from diverse stakeholders to meet their needs, especially for oil and gas companies that faced more critical consideration and high expectations from stakeholders to justify their operations. Sustainable development was concerned as one of an important way to meet their needs and expectations by all stakeholders. It comprised of 3 involvements; a broad view of economic, environmental, and social consequences; a long-term perspective as concerned to the rights and interests of future generations; and an inclusive approach in action that reminded the people's needs and their decisions influencing their lives (WBCSD, 2006). Integrating sustainable development to success for the organizations was not only the environmental specialist's responsibility, but it also needed a contribution from all workers across all functions. For the accomplishment of oil and gas industry, procurement in a sustainable route is essential, and meant of the bringing of common goal for sustainable development between policy and business creators. Sustainable procurement was considered as a high profile matter for businesses and assisted to developing competitiveness, minimizing waste, saving costs, and building a business' reputation and success.

As part of their sustainability programs, many oil and gas companies have provided jobs and sourced local supplies to improve local firms and people's lives by investing in local transportation networks or built schools. The global oil and gas industry has a responsibility to the countries in which it operates to manage its operations in as sustainable way as possible. It is vital for oil and gas firms in addressing sustainable procurement program and goal of development that helped in decreasing energy and environmental costs, including encouraging green innovative productions within modern technology, more competitive green

markets and market growth strength. Those can be achieved by ensuring that working conditions of its suppliers and employees are decent. There were several pathways which corporations can take to pursue business development, and all of those can be impact-oriented. One of them was corporate venturing, which leverages people, technology, ideas, and business assets to drive new forms of value creation.

## **2. Research Objectives**

This study was designed to assist the organizations to know employees' perception toward their works in lights of developing sustainable procurement and how to make employees understand and perceive the importance for their jobs under procurement systems.

## **3. Literature Review**

### **3.1 Oil-gas industry and sustainability information**

Recently, the trend in sustainability disclosure has been brought to report and practice in showing a high increasing numbers of companies' reports, consisting of economic, environmental and social related issues (Orazalin and Mahmood, 2018). Sustainability issue has almost become a reporting standard among the world largest companies' reports (Michelon, Pilonato, and Ricceri, 2015). Rather than terms of economic, environmental and social, topics discussed in the sustainability report impacted firm profitability with sustainable disclosure. Various papers suggested a positive influence between sustainability and profitability in the organizations, for example, the revealing more information to the stakeholders built a positive impression for profitable companies in Portugal (Branco, Delgado, Gomes and Eugénio, 2014). Sustainability has taken part in oil-gas operations from upstream to downstream processes, including ordering raw materials, refining, drilling, extracting, shipping, distributing of the finished products, and etc. Operations in oil-gas companies potentially impact on the environment in terms of safety, healthy, social and economic implications. Many departments in oil-gas companies have managed systematic process to minimize environmental impacts. Although many studies have been conducted to investigate the influences of sustainability to firm's success in various departments in the organization, a typical mechanism in building industry grows successfully was working people involving in those processes. One of significant mechanism in contributing a successful system in oil-gas industry was procurement section that carried out contracting strategies, buying materials and equipment, partnering other stakeholders, and managing projects in order to gain popularity of projects (Morledge and Smith, 2013).

### **3.2 Sustainable procurement**

Sustainable procurement has been seen as the process of buying decisions which benefits an organization's needs for goods and services as a whole, at the same time, reducing the environmental impact (IOS, 2017). The procurement process contributes a substantial part of organization's budgets. It is acknowledged that different both internal and external factors, for example, organization's procurement policies, sustainability guidelines (Mansi and Pandey, 2016). Because a sustainable procurement process is related to purchasing decisions, what a firm buys, where it is bought from, and how it uses the goods and services, can affect a great impact on organizational performance and its stakeholders. This is achieved by ensuring that the working conditions of its suppliers' employees are decent, the products or services purchased are sustainable and addressed. There have been many studies emphasizing on implementing sustainable abilities in the procurement process, to illustrate, Walker and Brammer (2012) studied how e-procurement assist supporting a sustainable procurement implementation in the organizations; Sarkis, Meae, and Presley (2012) developed a model of tendering process selection in the construction companies; Varnnas, Balfors, and Faith-Ell (2009) empirically developed environmental improving framework of procurement system in the construction industry. However, the sustainable procurement concept and implementation have been frequently ignored by firm's stakeholders.

## **4. Research Methodology**

A questionnaire was designed to assess the perception levels of employees. The samples consisted of employees who were working in procurement departments chosen from 8 oil and gas companies purposively located at Bangkok and Rayong in Thailand. This helped to ensure that the sampling frame consisted of

targeted respondents. A total of 150 questionnaires were distributed during 2 months and 138 surveys were returned.

As the first part of survey, the respondents were asked about their demographic data such as age, gender, types of employees, educational level, experiences of their works, and the company where they were working with. The second part was about the perception and understanding levels toward sustainable procurement process in their workplaces. The participants were required to complete a numbers of questions divided into 6 issues of sustainable procurement, which were (1) the understanding of sustainable procurement, (2) the Goal/framework of sustainable procurement, (3) the congruence of goal/framework with company strategy, (4) the working paths of sustainable procurement, (5) the follow-up/evaluation, and (6) the benefits of sustainable procurement.

## 5. Results

Descriptive statistics of frequency and percent were described demographic profile and the perception levels among those employees from different oil and gas companies. Questions on demographic aspects such as gender, age, types of employees, educational level, experiences of their works, and the company where they were working with were asked at the first section. The demographic data was shown in Table 1.

**Table 1 Sample description (N=138)**

Variables	Description	N (138)	Percent
Gender	Male	44	31.9
	Female	94	68.1
Age	Below 30 Years old	40	29.4
	31-40	45	32.4
	41-50	29	20.6
	Over 50 years old	24	17.6
types of employees	Permanent employee	120	86.6
	Temporary employee	18	13.4
educational level	Lower than Bachelor degree	10	7.4
	Bachelor degree	63	45.5
	Higher than Bachelor degree	65	47.1
experiences of their works	Lower than 6 years	42	30.4
	6 – 15 years	44	31.9
	More than 15 years	52	37.7
the company where they were working with	Company A	76	55.07
	Company B	30	21.74
	Company C	18	13.04
	Company D	14	10.15

Descriptive statistics of frequency and percent were described demographic profile. According to 138 returned questionnaires, Table 1 shows that 138 valid responses were used for an empirical analysis. The respondents were primarily females (with 68.1 percent), mainly aged of between 31-40 years old (with 32.4 percent), mostly permanent employees (with 86.6 percent), graduated at higher than bachelor degree (with 47.1 percent), and mostly working for more than 15 years (with 37.7 percent). All participants were selected from top 4 oil and gas companies in Thailand, by naming A, B, C, and D as anonymous names.

**Table 2 Employee's understanding levels toward sustainable procurement**

The understanding level of employees toward sustainable procurement at their workplace	Frequency (N=138)					Percent
	A	B	C	D	All	
1. The employee understands what it is and applies it mostly for their works.	20	8	9	8	45	32.60
2. The employee understands what it is and applies it somehow for their works.	35	12	9	2	58	42.03
3. The employee understands what it is, but has not used it yet.	4	4	0	0	8	5.80
4. The employee understands it in some parts and is still learning more about it.	15	2	0	2	19	13.77
5. The employee heard about it, but does not understand.	2	4	0	2	8	5.80

According to Table 2, it was found that most of the employees from oil and gas companies had high understanding levels toward sustainable procurement. Almost 75 percent understood what sustainable procurement was, however, some applied it mostly and somehow to their works.

**Table 3 Employee’s perception levels toward applying sustainable procurement concept as a part of one’s working goals**

The perception of employees toward applying sustainable procurement concept as a part of working goal/framework determination	Frequency (N=138)					Percent
	A	B	C	D	All	
1. The employee perceives that his/her organization has adopted sustainable procurement system already.	66	23	13	14	116	84.1
2. The employee perceives that his/her organization has not adopted sustainable procurement system yet. (If the respondents answered this choice, the next question would be in the Table 9)	10	7	5	0	22	15.9

Table 3 presented the percentage of oil and gas companies’ employees and showed that more than 84 percent of all respondents perceived that their organization has already applied the system of sustainable procurement, while almost 16 percent perceived it conversely.

**Table 4 Employee’s perception levels toward the congruence between one’s organization’s goals and its concept of sustainable procurement**

The perception of employees toward the congruence between their organizations’ goals/frameworks and the concept of sustainable procurement.	Frequency (N=116)					Percent
	A	B	C	D	All	
1. They are congruent.	29	11	6	14	60	51.72
2. They are partly congruent.	37	11	8	0	56	48.28
3. They are not congruent.	0	0	0	0	0	0.00

Table 4 illustrated more from Table 3 that the majority of the respondents perceived that there was a congruence between their organizations’ goals and the concept of sustainable procurement as more than 50 percent. None of those thought that they were not congruent.

**Table 5 Employee’ perception level toward sustainable in terms of green procurement**

The perception toward sustainable procurement in terms of green procurement in employees’ organizations (Multi-selection)	Frequency (N=116)					Percent
	A	B	C	D	All	
1. It helps reducing the environment pollution.	67	20	15	14	116	39.73
2. It supports trading partners to be more responsible for the environment.	49	18	9	15	91	31.16
3. It enhances the eco-friendly goods and/or services.	50	18	8	9	85	29.11
4. It does not cover some parts of their works.	0	0	0	0	0	0.00

**Table 6 Employee’ perception level toward sustainable in terms of labor practices and human rights**

The perception toward sustainable procurement in terms of labor practices & human rights in employees’ organizations (Multi-selection)	Frequency (N=116)					Percent
	A	B	C	D	All	
1. It resists an illegal workforce.	54	20	12	12	98	37.12
2. It considers working safety with trading partners.	50	16	11	11	88	33.33
3. It considers the equality of human right.	44	16	3	15	78	29.55

**Table 7 Employee’ perception level toward sustainable in terms of Business ethics and anti-corruption**

The perception toward sustainable procurement in terms of business ethics & anti-corruption in employees’ organizations (Multi-selection)	Frequency (N=116)					Percent
	A	B	C	D	All	
1. It against the corruption and bribery.	66	22	22	14	124	46.96
2. It helps protecting intellectual property.	43	13	14	12	82	31.06
3. It supports a local workforce.	25	13	12	8	58	21.96

Regarding Table 3 of approximately 84 percent of employees who perceived that their organizations have applied concept of sustainable procurement system, Table 5, 6, and 7 categorized all those employees’ perception into 3 aspects. Table 5 explored perception toward sustainable procurement in terms of green procurement, and it showed that 39.73 percent thought it could help environmental pollution better, and it could support trading partners to concern more about the environment. Table 6 presented the perception of sustainable procurement in terms of labor practices and human rights in the organizations. By 37.12 percent,

it helped resist an illegal workforce, followed by 33.33 percent of its support of working safety with trading partners. Table 7 illustrated that the perception of sustainable procurement in terms of business ethics and anti-corruption. The high responses of 46.96 percent showed that it opposed the corruption and bribery, and followed by 31.06 percent mentioning that it could protect intellectual property.

**Table 8 Employee’s perception level toward the process of follow-up and evaluation of sustainable procurement system**

The perception of employees toward whether the process of follow-up and evaluation of sustainable procurement system in their organizations.	Frequency (N=116)					Percent
	A	B	C	D	All	
1. All tasks and projects were followed-up and evaluated.	23	13	6	8	50	43.1
2. Some tasks and projects were followed-up and evaluated.	34	7	8	3	52	44.8
3. There is no follow-up and evaluation process, but it is in the learning process.	9	2	0	3	14	12.1
4. There is no any process of follow-up and evaluation.	0	0	0	0	0	0.00

**Table 9 Employee’s perception level toward the benefits from sustainable procurement in one’s organization**

The perception of employees toward the benefits from sustainable procurement in their organizations (Multi-selection)	Frequency (N=138)					Percent
	A	B	C	D	All	
1. It is responsible for all stakeholders in reducing the environment impact.	62	30	16	8	122	54.95
2. It helps cost-saving, risk reducing, and brand-value adding.	56	22	10	4	98	44.14
3. It strengthens the organization costs and reputation.	0	0	0	2	2	0.91

Most of the employees recognized that assigned tasks or projects were followed-up and evaluated, as Table 8. Table 9 showed the employee’s perception of benefits regarding to sustainable procurement system in their organizations. The 54.95 percent of respondents believed that it was responsible for all stakeholders in decreasing the environmental effects, and 44.14 percent believed that it assisted the organizations in cost-saving, risk minimizing and brand value adding; while only 0.91 percent believed that it could strengthen their firms’ costs and reputation.

## 6. Discussion

The findings showed that oil and gas companies’ employees’ perceptions of sustainable procurement were positive. The employees recognized it as an axis of current issues in their workplaces. The interests in sustainable procurement were intended to relate ‘green procurement’, ‘labor practices and human rights’, and ‘business ethics and anti-corruption’ issues.

Green procurement policy is generally driven by the effort of sustainable processes as contractual requirements based on company policy toward realizing sustainability in consumption and production. Oil and gas companies can be one of the most important organizations that could promote a sustainable

consumption through firms' impacts on all stakeholders. Green procurement processes can explicit both internal and external perspectives. Particularly an internal aspect, for example, employees from procurement department expressed their 'green' perceptions and positioned themselves through the environment issues, that sustainability can help reducing environmental pollution, however, green image in parts of eco-friendly goods and services could be more educated to workers. Therefore, a practical implications for internal sources such as employees to promote sustainable procurement and development is to strengthen a capacity of decision makers to accept information, knowledge of sustainable procurement, obstacles, and operational processes (Liu, Xue, Yang, & Shi, 2019).

Labor practices and human rights perceptions in the organizations have been viewed as very significant issues, while some companies were lacking of requirements or policies to commit to human rights principles as their common business directions conducting stakeholders in all group supply chains, and rights to natural resources and the environment to serve at minimal requirements. Several requirements related to labor and human rights topics were for the suppliers, trading partners, society and community, and their own operations. According to the study, basic requirements for internal operations, to illustrate, treating employees equally under employment terms and conditions which conform to an organizational regulation (IRPC, 2017). In addition, the requirements for external resources, for example, the organization can encourage trading partners to treat their workers, stakeholders with the way that respects labor practices and human rights aligning with the principles of international human rights. Not only human rights, but providing safety and sanitized working circumstance for employees adequately was required clearly. For society and community perspective, firms should place focus on environmental responsibility by building social, environmental, and health impact processes to improve community's living condition and quality of life.

Conducting a business in an ethical and sustainable way has been considered as a fundamental requirement to many organizations. For sustainable procurement, selecting suppliers or trading partners should be sourced by applying performance factors into a process among an integration of environmental, social and ethical keys. The employees should be educated about the ultimate goal of sustainable sourcing to establish a strong and long-term relationship with fair practices among stakeholders, including partners and suppliers. Fair practices were categorized into 3 criteria including 'corruption and bribery', anti-competitive practices', and 'responsible information management'. One of example from IRPC (2018) conducted the published regulations of supplier relationship that 'all employees must keep the information confidentially for their suppliers such as product or price information, or even price inspection. They must maintain un-bias relationships to all partners, and etc.

## **7. Conclusion and Recommendation**

Thailand offshores gas field in the eastern part are mainly centers that produce oil and gas, leading to majoring offshores oil and gas pipelines being constructed throughout the region. Oil and gas industrial sector in Thailand has been taking a large-scale operations and various complicated industrial processes involving multiple activities, especially procurement process which cause high effects of company's continuing tasks. In order to minimize impacts on economic, social, and environmental aspects, it is vital to assess stakeholders' perceptions toward the concept of sustainable procurement in the industry on how they understood and perceived on it, by starting with the employees as internal resources of the organizations.

This study is based on empirical survey from oil and gas companies in Thailand. A quantitative study was conducted to identify a current practice and employees' perceptions on sustainable procurement in their workplaces. It was concluded that the initiative perceptions of the oil and gas companies' employees in Thailand were not completely utilized. They were lacking of deeper knowledge of understanding in sustainable procurement and how to implement it in practice. They knew it brought some benefits, for instance, they knew it helped reducing environmental pollution, but they did not know it could help strengthen organizational reputations and costing tasks as well.

In recommendation, the implementation of sustainable procurement needs the actions from all stakeholders. The further study can evaluate the perception levels from all upstream and downstream partners, and compare the levels from each partners whether they do perceive sustainable procurement in the same way. Furthermore,

there are more oil and gas companies in Thailand which could bring more varies of the results, and samples could ensure more heterogeneity in responses. The findings can be more generalized with the larger scale of study.

## 8. References

- Castelo Branco, M., Delgado, C., Ferreira Gomes, S., & Cristina Pereira Eugénio, T. (2014). Factors influencing the assurance of sustainability reports in the context of the economic crisis in Portugal. *Managerial Auditing Journal*, 29(3), 237-252.
- International Organization for Standardization. (2017). Sustainable Procurement. Retrieved February 3, 2019 at [https://www.iso.org/files/live/sites/isoorg/files/store/en/ISO%2020400\\_Sustainable\\_procur.pdf](https://www.iso.org/files/live/sites/isoorg/files/store/en/ISO%2020400_Sustainable_procur.pdf)
- IRPC. (2017). Human rights. Retrieved March 1, 2019 at [http://www.irpc.co.th/en/sus\\_human\\_rights.php](http://www.irpc.co.th/en/sus_human_rights.php)
- IRPC. (2018). Sustainable procurement manual. Retrieved March 1, 2019 at <http://www.irpc.co.th/en/pdf/Sustainability/En-IRPC-sustainability-procurement-manual3.pdf>
- Liu, J., Xue, J., Yang, L., & Shi, B. (2019). Enhancing green public procurement practices in local governments: Chinese evidence based on a new research framework. *Journal of Cleaner Production*, 211, 842-854.
- Mansi, M., & Pandey, R. (2016). Impact of demographic characteristics of procurement professionals on sustainable procurement practices: Evidence from Australia. *Journal of Purchasing & Supply Management*, 22, 31-40.
- Michelon, G., Pilonato, S., & Ricceri, F. (2015). CSR reporting practices and the quality of disclosure: An empirical analysis. *Critical Perspectives on Accounting*, 33, 59-78.
- Morledge, R., & Smith, A. (2013). *Building procurement*. John Wiley & Sons.
- Orazalin, N., & Mahmood, M. (2018). Economic, environmental, and social performance indicators of sustainability reporting: Evidence from the Russian oil and gas industry. *Energy Policy*, 121, 70-79.
- Sarkis, J., Meade, L.M., and Presley, A.R. 2012. Incorporating sustainability into contractor evaluation and team formation in the built environment. *Journal of Cleaner Production*, 31, 40–53.
- SDG Index and Dashboards Report. (2018). Global Responsibilities Implementing the Goals. Retrieved October 13, 2018 at <http://www.sdgindex.org/assets/files/2018>
- Steiner, A. (2018). Administrator's Remarks: Second Global Meeting on Preventing Violent Extremism. Retrieved October 13, 2018 at <http://www.undp.org/content/undp/en/home/news-centre/speeches/2018/>
- Varnäs, A., Balfors, B., & Faith-Ell, C. (2009). Environmental consideration in procurement of construction contracts: current practice, problems and opportunities in green procurement in the Swedish construction industry. *Journal of Cleaner Production*, 17(13), 1214–1222.
- Walker, H., and Brammer, S. 2012. The relationship between sustainable procurement and e-procurement in the public sector. *International Journal of Production Economics*, 140(1), 256–268.
- WBCSD. (2006). DRIVING SUCCESS Marketing and sustainable development. Retrieved February 15, 2019 at [https://www.respect.at/dl/NKKmJLJlOKJqx4OooJK/DrivingSuccess-Marketing\\_SD.pdf](https://www.respect.at/dl/NKKmJLJlOKJqx4OooJK/DrivingSuccess-Marketing_SD.pdf)
- WBCSD. (2015). Scaling up business solutions contributing to the Sustainable Development Goals: The corporate impact venturing approach. Retrieved December 8, 2018 at <https://www.wbcd.org/Programs/People/Social-Impact/News/>



## Internal Locus of Control: Can There Be Too Much of a Good Thing?

Lee N. Miller

Business Administration Program  
Burapha University International College  
Chonburi 20131, Thailand  
Email: lee.mi@buu.ac.th

### Abstract

A review of literature on the relationship between locus of control and performance found that a greater internal locus of control generally leads to better performance. However, it is has also been found that illusory control is prevalent in all of us but those identified as being depressed. A review of literature on illusory control revealed studies whereby illusory control was related to decreased performance, particularly in situations requiring analysis, strategy, judgment, or decision making. The author then generated a set of integrated propositions regarding the relationships between internal locus of control, illusory control, and performance, integrating the separate streams of literature on locus of control and illusory control and generating new predictions of performance.

**Keywords:** locus of control; illusion of control; illusory control; employee performance

### 1. Introduction

Globalization and hypercompetition is forcing organizations to be ever more efficient while satisfying increasingly higher expectations of performance. Consequently, organizations are attempting to maintain leaner staffs comprised of only the best employees. Recruiting and selecting the best employees (or not) has a dramatic impact on organizations (Bressler, 2014; Groysberg, Nohria, and Fernandez-Arroz, 2009; Wei, 2010). In order to select higher performing employees, organizations are increasingly turning to preemployment testing (Daft, 2018). Although the testing they perform is generally kept as a trade secret, with their measurement methods remaining unpublished and their success never having been verified, one area of testing having the potential to predict future employee performance is the measurement of potential employees' locus of control.

The construct of internal versus external control of reinforcement, or locus of control, is said to determine one's levels of academic and vocational performance, self-esteem, sense of humor, anxiety, depression, and life satisfaction and contentment (Crandall & Crandall, 1983). It's no wonder then, that locus of control is one of the most studied variables in psychology and the other social sciences. Rotter (1990) defines locus of control as follows:

the degree to which persons expect that a reinforcement or an outcome of their behavior is contingent on their own behavior or personal characteristics versus the degree to which persons expect that the reinforcement or outcome is a function of chance, luck, or fate, is under the control of powerful others, or is simply unpredictable (p. 489).

In other words, people with an internal locus of control believe that they control events, whereas people with an external locus of control believe that someone or something else controls them. Rotter cautioned against assuming that internal expectancies were inevitably better than external expectancies. According to Rotter (1975, p. 60), "... the problem then lies in assuming that all good things are characteristic of internals and all bad things are characteristic of externals." Nevertheless, upon reviewing the literature, one will find that many scholars seemed to have concluded exactly this.

Crandall and Crandall (1983) found that internality of locus of control promoted superior cognitive processing and more learning, better ability to delay gratification, more perseverance, greater academic and vocational performance, better interpersonal relationships, more respect from others, better emotional adjustment, and greater life satisfaction and contentment. Similarly, Nowicki and Duke (1983) found that internality was related to higher self-esteem, self-acceptance, and other indicators of adaptive functioning, as

well as a variety of socially competent characteristics and greater achievement in academic settings. Boone, De Brabander, and Hellemans (1996) reported that internality of small firm CEO's was significantly and positively related to firm profitability. Judge and Bono (2001) found internality positively related to job satisfaction and job performance. Finally, both Ng, Sorensen, and Eby (2006) and Wang, Bowling, and Eschleman (2010) found internality to be correlated with a wide variety of work outcomes including well-being, job satisfaction, motivation, career success, favorable task experiences, fewer negative task experiences, favorable social experiences, and problem-focused coping strategies. Thus, whether you measure performance by social competency, emotional adjustment, academic or vocational achievement, or one's firm profitability, the profusion of positive relationships between internality of locus of control and a wide variety of performance measures seems to indicate that internality provides a significant advantage.

## 2. Research Objectives

According to much of the literature, a locus of control test finding of internality would likely identify a potential employee whose performance would be deemed superior. However, this reasoning may be oversimplified as the relationship between locus of control and performance is not completely established (Galvin, Randel, Collins, & Johnson, 2018). For example, given that an internal locus of control is considered good, can there be too much of a good thing, i.e., is an even stronger internal locus of control better?

There is mounting evidence that, in all of us except those identified as depressed, there exists a tendency to overestimate the degree of control we objectively have in many situations. According to Rotter (1966, p.4), "... it seems likely that the individuals at both extremes of the internal versus external control of reinforcement dimension are essentially unrealistic..." It also seems likely that unrealistic expectations of one's control, i.e., illusory control, could potentially lead to decreased performance. This research attempts to integrate the separate streams of literature on locus of control and illusory control and then generate new predictions of performance.

## 3. Literature Review

In 1975, Langer identified and defined the illusion of control as "an expectancy of a personal success probability inappropriately higher than the objective probability would warrant" (Langer, 1975, p. 313). Stated differently, it is the tendency for (nondepressed) people to overestimate the extent of their control over events, sometimes believing that they can influence or control the outcome of demonstrably uncontrollable or chance events. For example Henslin (1967) found that people, when rolling dice in craps, have a propensity to throw softer when they desire lower numbers and harder when they desire higher numbers, behaving as if the outcome was within their control. As another example, Langer and Roth (1975) found that, when guessing a series of coin tosses, experimental subjects who had early success began to believe that they were significantly better at predicting this chance event and believed that their guessing performance in the future would be significantly more successful as well.

Alloy and Abramson (1979) found that, while depressed students accurately assessed the degree of contingency between their response and an outcome, nondepressed students consistently overestimated their control. After reviewing a number of other similar studies, Alloy and Abramson (1979) concluded that "nondepressed people succumb to cognitive illusions that enable them to see both themselves and their environment with a rosy glow" (p. 479-80). Taylor and Brown (1988) concurred, stating that "a substantial amount of research testifies to the prevalence of illusion in normal human cognition" (p. 193). In fact, three illusions (unrealistically positive self-evaluations, exaggerated perceptions of control, and unrealistic optimism) appear to be "pervasive, enduring, and systematic" (Taylor & Brown, 1988, p. 194).

There has been some debate over whether positive self-illusions are adaptive or maladaptive. Taylor and Brown (1988) have argued that they may be adaptive as they may increase personal contentment and productivity. Others have argued that they may be, in at least some circumstances, maladaptive. For example, people with higher levels of illusory control may experience decreased risk perception and/or unrealistic optimism (e.g., Houghton, Simon, Aquino, & Goldberg, 2000; Kahneman & Lovallo, 1993). When considering one's performance, this could have far-reaching implications. In a business management context, for instance, higher levels of illusory control could potentially lead to situations such as ill-advised business

acquisitions or escalating commitments to failing courses of action. In fact, several studies have identified potentially serious consequences to performance due to higher levels of illusory control.

For example, Duhaime and Schwenk (1985) studied the decision making incorporated in the acquisition or divestment of business units of firms and then hypothesized about how decision makers may cognitively simplify these complex and ambiguous decisions. They suggested that optimistic biases and decision making errors may arise from this simplification process. One of the biases cited was the illusion of control, where it was suggested that managers tended to overestimate the personal control they had over the outcomes of an acquisition and therefore assumed that they could successfully solve any problems that might arise. The study supported its ideas with examples from field research and business press reflecting business acquisitions that had gone badly and quotes from the acquirer's executives supporting the bias argument.

Kahneman and Lovallo (1993) studied two modes, inside view and outside view, used by managers for forecasting and planning resources such as capital investment projects, new products, or acquisitions. Although most people prefer the inside mode, where the forecast focuses on the details of the case at hand and treats it and the obstacles to its completion as being unique, the study hypothesizes that this mode of forecasting introduces the possibility of unrealistic optimism and the illusion of control. This is due to the tendency for people to "exaggerate their control over events, and the importance of the skills and resources they possess in ensuring desirable outcomes" (p. 27). The study used as corroborating evidence studies by Rand Corporation concluding that nearly all project construction costs exceed initial estimates by more than 20%, Strategic Planning Institute data on start-up ventures showing that 80% of the projects studied fell short of planned market share, and Dun and Bradstreet data showing that the new firm survival rate was 33% as compared to the more than 80% of entrepreneurs estimating that their chance of success was 70% or better.

Houghton, Simon, Aquino, and Goldberg (2000) studied whether three different cognitive biases would affect the risk perception of individuals or teams of a first move (e.g. plant expansion, decision to enter a new market, etc.) The biases studied were law of small numbers bias, illusion of control bias, and over-confidence. The subjects, who were all MBA students, were asked to respond to a Harvard Business School case study with their response indicating biases, risk perception, and the decision to first move. The results demonstrated that the law of small numbers bias and illusion of control bias lowered the perception of risk for both individuals and teams.

Finally, Fenton-O'Creevy, Nicholson, Soane, and Willman (2003) tested financial instrument traders working at investment banks for the propensity of illusory control. The test was performed as a computer game whereby subjects were asked to attempt to raise an index by pressing three keys on the keyboard; however, the movement of the index was unrelated to the subjects' efforts. The subjects were then asked to grade their success in raising the index value. The subjects' grades were then used as a measure of the propensity of illusory control. The results demonstrated that traders who had higher levels of the propensity of illusory control earned significantly less income and performed significantly worse (as rated independently by senior managers) on analysis, risk management, and profit contribution.

Thus, several studies have proposed, or found, that higher levels of illusory control, or the propensity towards illusory control, are related to decreased performance. Note that, corresponding to the above studies, this seems to be particularly so in situations requiring analysis, strategy, judgment, or decision making.

#### **4. Research Methodology**

It seems logical that having a better grasp on reality would lead to better performance in situations requiring analysis, strategy, judgment, or decision making. Accordingly, overestimating one's control over events (i.e., illusory control) might logically lead to poorer performance, particularly in these same situations (i.e., those requiring analysis, strategy, judgment, or decision making). Following this logic, I would concur with previous studies (from the literature review above) and posit the following:

**Proposition 1:** A stronger propensity towards illusory control leads to poorer performance, particularly in those situations requiring analysis, strategy, judgment, or decision making.

Generally, people who believe that they can control outcomes are identified as having an internal locus of control. However, people identified as having a strong propensity towards illusory control also believe that they can control outcomes (even though some of those outcomes may, in fact, be uncontrollable). Note that a propensity towards illusory control, i.e., the tendency to overestimate the degree of control we objectively

have in many situations, has been found to some extent in all of us except those identified as depressed. Thus, studies using traditional locus of control measures, e.g., the Rotter I-E Scale questionnaire (Rotter, 1966), would include existing propensities towards illusory control since the respondents' overestimation of their control would be included in their responses. I concur with Rotter (1966) that the extremes of locus of control measurements are essentially unrealistic and, hence, conclude that extreme internal values of locus of control measurements correspond to higher levels of the propensity towards illusory control. Thus, I would posit the following:

Proposition 2: Extreme values of internal locus of control will correspond to higher levels of the propensity towards illusory control.

As previously noted, internality of locus of control has been found to be associated with higher levels of performance on a variety of performance measures. Thus, while higher levels of internality would relate to higher performance, lower levels (i.e., externality) would likewise relate to poorer performance. However, if extreme values of internal locus of control correspond to higher levels of the propensity towards illusory control (as per Proposition 2), and if a stronger propensity towards illusory control leads to poorer performance (as per Proposition 1), I would posit the following:

Proposition 3: The relationship between locus of control and performance, particularly in situations requiring analysis, strategy, judgment, and decision making, is curvilinear with an inverted U-shape, whereby lower and higher levels of locus of control lead to lower performance and with moderate levels leading to higher performance (see Figure 1).

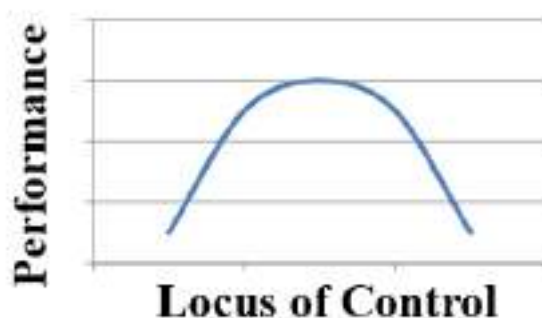


Figure 1 Locus of Control

## 5. Results Summary

Proposition 1: A stronger propensity towards illusory control leads to poorer performance, particularly in those situations requiring analysis, strategy, judgment, or decision making.

Proposition 2: Extreme values of internal locus of control will correspond to higher levels of the propensity towards illusory control.

Proposition 3: The relationship between locus of control and performance, particularly in situations requiring analysis, strategy, judgment, and decision making, is curvilinear with an inverted U-shape, whereby lower and higher levels of locus of control lead to lower performance and with moderate levels leading to higher performance (see Figure 1).

## 6. Discussion

With locus of control being one of the most studied variables in psychology, the obvious question would be why the proposed curvilinear relationship (with performance) has not yet been identified and measured? The most frequently used test to determine locus of control orientation is the Rotter I-E Scale, a 29 item (23 + 6 filler items), forced-choice questionnaire (Rotter, 1966). Since the test was designed to account for a broadly generalized characteristic over a number of different situations (athletics, student grades, political involvement, individual worth, misfortune, etc.), the test seems to be “more suitable for investigations of group differences than for individual prediction” (Rotter, 1966, p. 17).

Typically, studies have used the Rotter I-E Scale to predict differences in behavior between split groups of individuals above and below the median of the scale. Often, the studied participants were quite homogenous; they were regularly groups of college students from the same university or even the same class.

Thus, studies comparing internal with external locus of control behaviors have generally been between moderate levels of internal and moderate levels of external control. It's likely then, that studies to date have not had the measuring range and sensitivity necessary, or the diverse population of participants necessary, to distinguish values towards the extremes of the locus of control dimension or, even if measured, they were not the focus of the studies and consequently were not identified.

The obvious next question would then be whether a more sensitive measure with greater range can be developed. Although the locus of control construct is a generalized expectation, there have been numerous attempts to develop scales for use with specific contexts or populations (i.e. work, health, preschool, geriatric, learning disabled children, etc.); however, Rotter (1966, 1990) identified problems associated with attempts to refine the test for increased sensitivity. For example, when developing the Rotter I-E Scale, Rotter made several early attempts to use a Likert format, but found these measures to be too highly correlated with the Marlowe-Crowne Social Desirability Scale. Rotter (1990) also found that, in keeping with the generalized expectation of the broad construct, it is difficult to add sensitivity while measuring "many different situations without making the total score more dependent on one kind of situation (such as school achievement) than on another (such as political involvement)" (p. 491). Rotter (1966) concludes, "Whether or not a more refined measure of such a broad characteristic can be developed is an open question" (p. 17).

## 7. Conclusion

With this research, I attempted to generate a set of integrated propositions regarding the relationships between locus of control, illusory control, and performance, thus, integrating the separate streams of literature on locus of control and illusory control. I then predicted that the relationship between locus of control and performance would be curvilinear with an inverted U-shape. Achieving a better understanding of the relationship between locus of control and performance could have a far-reaching impact in our increasingly globalized and hypercompetitive world. For example, this understanding could potentially facilitate organizations to match employees to positions for which they are better suited, or assist organizations to reduce the number of bad hires.

Accordingly, future research in an entrepreneurship or business management context might focus on hiring, placement, or promotion decisions and the screening of potential job candidates for a propensity towards the illusion of control. Note that this propensity could conceivably be considered either negative or positive, depending on the position. As an example, the illusion of control might be considered detrimental to performance for a managerial position requiring analysis, strategy, judgment, and decision making, but could very well be instrumental to performance for a sales position requiring perseverance in an environment where one might experience frequent rejection. Other opportunities for research could include management training to help managers to be aware of and recognize tendencies towards the propensity for illusory control and/or to be more realistic in instances conducive to control illusions.

Finally, to assist in measuring the propensity for illusory control, future research should investigate developing a more sensitive locus of control instrument with a greater range of locus of control values. Subsequently, determining whether that instrument could detect a propensity for illusory control would be exceedingly useful, eliminating the need for the cumbersome noncontingent-win judgment-of-control problem solving tests (typically done using computer games) that are currently being used for detection.

## References

- Alloy, L. B., & Abramson, L. Y. (1979). Judgment of Contingency in Depressed and Nondepressed Students: Sadder but Wiser? *Journal of Experimental Psychology: General*, 108(4), 441-485.
- Boone, C., De Brabander, B., & Hellems, J. (1996). Research Note: CEO Locus of Control and Small Firm Performance. *Organization Studies*, 21(3), 641-646.
- Bressler, M. (2014). Tip of the Spear Strategy: Building the Winning Organization through High-impact Hiring. *Journal of Management and Marketing Research*, 15, 30-41.
- Crandall, V. C., & Crandall, B. W. (1983). Maternal and childhood behaviors as antecedents

of internal-external control perceptions in young adulthood. In H. M. Lefcourt (Ed.), *Research with the locus of control construct: Vol. 2. Developments and social problems* (pp. 53-103). San Diego, CA: Academic Press.

- Daft, R.L. (2018). *Management*. Boston, MA: Cengage Learning.
- Duhaime, I. M., & Schwenk, C. R. (1985). Conjectures on cognitive simplification in acquisition and divestment decision making. *Academy of Management Review*, 10(2), 287-295.
- Fenton-O’Creevy, M., Nicholson, N., Soane, E., & Willman, P. (2003). Trading on illusions: Unrealistic perceptions of control and trading performance. *Journal of Occupational and Organizational Psychology*, 76, 53-68.
- Galvin, B. M., Randel, A. E., Collins, B. J. & Johnson, R. E. (2018). Changing the focus of locus (of control): A targeted review of the locus of control literature and agenda for future research. *Journal of Organizational Behavior*, 39(7), 820–833.
- Groysberg, B., Nohria, N., and Fernandez-Arroz, C. (2009). The definitive guide to recruiting in good times and bad. *Harvard Business Review*, May, 74-84.
- Henslin, J. M. (1967). Craps and magic. *American Journal of Sociology*, 73, 316-330.
- Houghton, S., Simon, M., Aquino, K., & Goldberg, C. (2000) Persistence of biases and their effects on team risk perception and team decision making. *Group & Organization Management*, 25(4), 325-353.
- Judge, T.A., & Bono, J.E. (2001). Relationship of core self-evaluations traits–self-esteem, generalized self-efficacy, locus of control, and emotional stability–with job satisfaction and job performance: a meta-analysis. *The Journal of Applied Psychology*, 86(1), 80-92.
- Kahneman, D., & Lovallo, D. (1993). Timid choices and bold forecasts: A cognitive perspective on risk taking. *Management Science*, 39(1), 17-31.
- Langer, E. J. (1975). The illusion of control. *Journal of Personality and Social Psychology*, 32(2), 311-328.
- Langer, E. J., & Roth, J. (1975). Heads I win, tails, it’s chance: The illusion of control as a function of the sequence of outcomes in a purely chance task. *Journal of Personality and Social Psychology*, 32(6), 951-955.
- Ng, T. W., Sorensen, K. L. & Eby, L. T. (2006). Locus of control at work: a meta-analysis. *Journal of Organizational Behavior*, 27, 1057-1087.
- Nowicki Jr., S., & Duke, M. P., (1983). The Nowicki-Strickland Life-Span Locus of Control Scales: Construct Validation. In H. M. Lefcourt (Ed.), *Research with the locus of control construct: Vol. 2. Developments and social problems* (pp. 9-51). San Diego, CA: Academic Press.
- Rotter, J. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General & Applied*, 80(1), 1-28.
- Rotter, J. (1975). Some Problems and Misconceptions Related to the Construct of Internal Versus External Control of Reinforcement. *Journal of Consulting and Clinical Psychology*, 43(1), 56-67.
- Rotter, J. (1990). Internal versus external control of reinforcement: A case history of a variable. *American Psychologist*, 45(4), 489-493.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103(2), 193-210.
- Wang, Q., Bowling, N. A., & Eschleman, K. J. (2010). A meta-analytic examination of work and general locus of control. *Journal of Applied Psychology*, 95(4), 761-768.
- Wei, W. (2010, October 25). Tony Hsieh: Bad Hires Have Cost Zappos Over \$100 Million. Retrieved from <http://www.businessinsider.com/tony-hsieh-making-the-right-hires2010-10>

## More Digital Discoveries and Electronic Explorations: *A Locative Media Platform for Heritage Interpretation in the Field*

David T. Brown, Ph.D.

Department of Geography and Tourism Studies, Brock University  
1812 Sir Isaac Brock Boulevard, St. Catharines, ON L2S 3A1  
[dbrown@brocku.ca](mailto:dbrown@brocku.ca)

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**ABSTRACT:** The development of affordable, smartphone-based GPS functionality has dramatically transformed heritage interpretation, field studies, and tourism by allowing for the automatic triggering and playback of interpretive content based on physical location. When properly integrated, location-based technologies provide unparalleled opportunities for self-guided wayfinding, digital signposting, multimedia interpretation and digital storytelling in the field. However, despite the growing availability of devices which incorporate technologies that support locative media, there are few tools that support simple authoring and deployment of locative media interpretive experiences. In this paper, I describe the evolution, current use, and future prospects for the *interpretours* interpretive authoring and content management system and its associated *Guidetags* mobile phone app. Together, they constitute a two-part digital interpretive platform which links places with stories, images, and multimedia. This modular platform was developed to facilitate fast, simple creation and sharing of sophisticated geolocated interpretive content on mobile devices by users who have only very basic levels of digital literacy. It shows great potential for interpreting heritage resources, facilitating self-guided tourism, logging points of interest and travel routes in real time, and collecting and delivering location-specific research data at field locations in a range of disciplines. Recent advances in digital voice technologies, text-to-speech capabilities, and electronic language translation engender even more opportunities for sharing these rich interpretive resources with a multilingual, multicultural audience.



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Department of Geography and Tourism Studies, Brock University  
1812 Sir Isaac Brock Boulevard, St. Catharines, ON L2S 3A1  
[dbrown@brocku.ca](mailto:dbrown@brocku.ca)

## Introduction

More than a decade ago, I described the *Niagara Greenbelt Gateway Website* (archived online at <http://brocku.niagaragreenbelt.com>), a web-based digital interpretive platform that profiled location-specific interpretive information on point of interest (POI) web pages (Niagara Greenbelt Gateway Website 2008; Brown and Romanin 2008). The POI web pages featured hypertext, interpretive multimedia (audio, images, video), and digital maps with latitude and longitude coordinates to aid in geolocation. However, despite the inherent richness of the multimedia content, technology of the day imposed significant limitations - accessing it in the field required cumbersome prior manual downloading and printing of text, maps, and directions, as well as manual playback or viewing of the digital multimedia content on a compatible playback device at each destination.

Since then, the development of affordable, smartphone-based GPS functionality and integrated multimedia capabilities have dramatically transformed the prospects for heritage interpretation, field studies, and tourism. However, despite the growing availability of devices which incorporate locative media technologies and media playback capabilities (Cheverst *et al.* 2017), and despite the rapid proliferation of individual apps and services which utilize location data for annotation, navigation, location-based services, and gaming (Nitins and Collis 2013, Khan and Loke 2017), there are few tools that support simple authoring and deployment of locative media interpretive experiences.

We have developed a digital interpretive system that uses geographical coordinates for the automatic triggering and playback of interpretive multimedia content based on physical location. When properly integrated, these location-based technologies provide unparalleled opportunities for self-guided wayfinding, digital signposting, multimedia interpretation and digital storytelling in the field.

In this paper, I describe the evolution, current use, and future prospects for the *interpretours* interpretive authoring and content management system and its associated *Guidetags* mobile phone app. Together, they constitute a two-part digital interpretive platform which automatically links places with stories, images, and multimedia. This modular platform was developed to facilitate fast, simple creation and sharing of sophisticated geolocated interpretive content on mobile devices by users who have only very basic levels of digital literacy. Building on the simple but powerful point-of-interest (POI) page concept pioneered by the Greenbelt website, the platform is useful for interpretation of individual POIs, creation of thematic interpretive tours, digitally assisted wayfinding, and digital signposting. As new digital technologies like augmented reality, 3D visualization, and intelligent image recognition evolve,



the modular architecture of the interpretours platform allows for these enhancements to be ‘plugged in’ to the suite of available tools. Advances in digital voice technologies, text-to-speech capabilities, and electronic language translation engender even more opportunities for sharing these rich interpretive resources with a multilingual, multicultural audience.

### ***The Context: Interpreting Heritage***

*“There’s an important difference between interpretation and information. Information just gives facts, but interpretation can provoke ideas, perhaps even jolt people into a completely new understanding of what they have come to see”.*

- Carter (1997)

People are inherently attracted to understanding and appreciating the features, context, history, and stories of the places they inhabit. This constellation of natural and cultural attributes can be referred to as *heritage*.

*Heritage* is a complex and value-laden term, with many literature definitions (1, 2,3,4). However, it can be broadly and effectively understood as “the natural and cultural inheritance of a community that defines its identity” (Baeker, 2010). Identifying, classifying, protecting, interpreting, archiving, and commodifying our collective heritage is an ongoing enterprise which encompasses many sectors, from academia to tourism.

Heritage features have been organized into three broad classes: *immovable heritage* (e.g., buildings, monuments, geological features, landscapes); *movable heritage* (artifacts, collections of objects of human or non-human origin); and *intangible heritage* (songs, stories, poetry, and other forms of ephemeral expression) (Ontario Ministry of Culture 2002).

Some taxonomies group heritage features by their relative permanence or ephemerality, classifying them as *tangible heritage* (including physical objects like structures, artistic artifacts, and everyday objects) versus *intangible heritage* (including oral histories, beliefs, languages, and attitudes). They may also be classified by their genesis (anthropogenic or non-anthropogenic), such as *cultural heritage* (the products of humankind) versus *natural heritage* (the products of the environment, or of humankind's relationship with the environment) (Baeker and Hanna 2009).

Heritage features are often described in value-laden terms (e.g., as heritage “assets” or “resources”), reflecting both their cultural importance and economic value to a given community or social group. A recent manifestation of this is in the rise in prominence, policy focus, and controversial nature of the so-called ‘creative cultural industries’ (e.g., Florida 2002, Throsby 2008, Baeker 2009) (Figure 1).

Taxonomic and academic debates notwithstanding, it is evident that heritage resources have both extrinsic and intrinsic worth. The perceived value of heritage has mobilized an array of proponents for their interpretation, protection, and – regrettably, in some cases – their economic exploitation. From nature clubs to art galleries, national parks to historic buildings,

### ***Facilitating access & engagement***

Regardless of the intent, heritage interpretation relies heavily on storytelling. Every place has its stories, ranging from broad vernacular anecdotes to precise empirical exposition. If these stories are not shared, the places become of diminished interest to residents and visitors alike (Brown and Baeker 2010), and eventually, their heritage significance is lost.

To provide a meaningful interpretive experience, guides and interpreters must connect their audiences with heritage features in an engaging and meaningful way. This includes facilitating **physical** access and engagement by indicating location, providing wayfinding information, and aiding with itinerary building, as well as facilitating **intellectual** access and engagement through factual knowledge, contextual awareness, and shared stories.

Interpretation include traditional skills which involve a live human expert, guide, docent, or mentor sharing factual information, telling stories, guiding tour groups, and providing heritage mentorship. Accreditation programs like the UK 'Blue Badge' tour guide program are rigorous, demanding, and highly skilled professional enterprises. Live interaction with a skilled human interpreter is arguably still the best way to experience natural and cultural heritage.

However, skilled and knowledgeable human interpreters are not always available or affordable. To fill the gap and facilitate self-guided explorations, technology is employed as an extension of our human aptitude. Traditional "low-tech" interpretive tools include printed brochures, guidebooks, and paper maps. More recently, modern "high-tech" tools have included multimedia presentations (images, video, and audio), geolocational utilities, and augmented / virtual reality programs, delivered onsite on mobile digital devices. No technology is inherently superior; the usefulness of these various tools depends on the topic of interest and its interpretive context.

### ***Transformative digital technologies***

In recent years, several transformative digital technologies have emerged which have revolutionized prospects for heritage interpretation. Breakthroughs began with personal computers (now ubiquitous), and rapidly expanded to include cell phones, digital media players, digital cameras and recorders, the Internet, wireless data transmission (wifi, 3/4/5G, satellite), multimedia-capable smartphones, and affordable, smartphone-based GPS receivers. Though all these technologies can potentially enhance the interpretive process, the last two – smartphones and integrated GPS – are truly transformative. Now, individuals can be accurately located within a landscape and receive geolocated interpretive information in a multitude of forms on a single, portable, multifunctional, and virtually ubiquitous device: the smartphone.

### ***Locative media***

The term 'locative media' – the provision of multimedia content keyed to geographical location – was reportedly first proposed by Karlis Kalnins in 2003 (Hemmett 2006; Wilken 2012; see Khan and Loke 2017 for a concise review of the development of locative media). Initially the realm of the military for location-specific intelligence gathering and offensive warfare, and of industries focused on developing high-end software for market and social research, the

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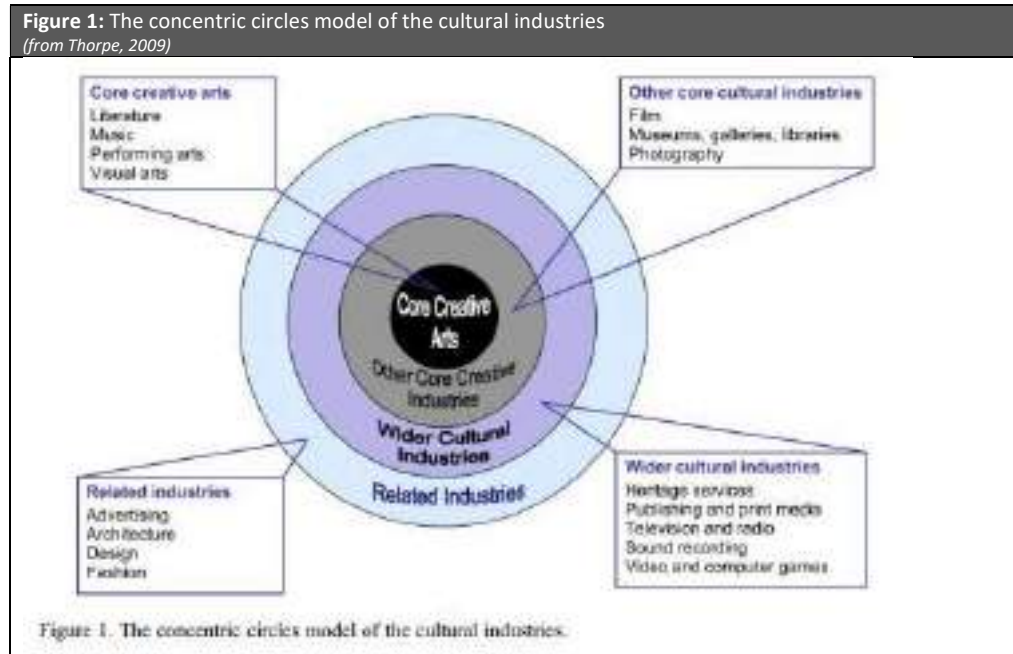
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ecozones to music festivals, wildlife refuges to theme parks, the breadth and importance of heritage features are both indisputable and vast.



### **Heritage interpretation**

The significance of some heritage features is easy to understand, but for others, the values are not obvious and require *interpretation*.

Interpretation Canada (1976) described interpretation as “*Any communication process designed to reveal meanings and relationships of cultural and natural heritage to the public, through first-hand involvement with an object, artifact, landscape or site*”. Mechanisms for understanding and contextualizing heritage features may include any combination of written, verbal, musical, and artistic expression, and manifest as “activities, events, signs, publications, audio, video, artworks,...trails” (HCNSW 2005). Modern interpretation now encompasses rich and diverse multimedia tools and a burgeoning array of digital applications.

Interpretation occurs for many reasons, including formal academic instruction, tourism, entertainment and diversion (including *flânage*\*), and even highly personal “communion” with meaningful landscapes and “pilgrimages” to significant locations (Carter 2010). Interpretation is also an integral component of conservation and management (HCNSW 2005).

\* *flâneur*: a French term “...that doesn’t really have an exact English equivalent. It means a stroller or a saunterer; someone who explores their surroundings with no particular goal while being open to new experiences and perspectives that might enrich their day. The French poet Charles Baudelaire celebrated this noble profession, describing a *flâneur* as ‘a person who walks the city...to experience it’.” (Carter 2010).

### ***Facilitating access & engagement***

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specialized domain of programmers and military strategists was democratized for everyday users when GPS satellite signals were decrypted in 1995. When the Google Maps application programming interface (API) was made available to the public in 2005 (Gordon and de Souza e Silva 2011), practical GPS tools for mapping, geolocation, and navigation rapidly appeared on laptop computers and mobile devices. By 2009, GPS-capable smartphones had overtaken dedicated GPS receivers as personal navigation devices by almost 4:1 (Malm 2009), opening up a promising new niche in location-sensitive app development.

### ***The evolution of the interpretours platform***

Location specific interpretive information has been available for a long time. From the *Itinerarium Burgadalse* (a “pilgrim’s guidebook” used by medieval Christians in 330 AD) (Guinness 2019), through to the plethora of tourist guides that proliferated throughout the 20<sup>th</sup> century, paper-based books and maps have been used to locate and describe places of heritage interest. Paper-based resources, though still a cornerstone of interpretation and tourism, are inherently limited in scope, timeliness, and interpretive potential. They are also expensive to produce and update, consume considerable material resources, and often have a very limited functional life before they are discarded. In the late 2000s, the web-based *Niagara Greenbelt Gateway Website* was created to promote and interpret the Niagara section of a provincially controlled Ontario Greenbelt heritage zone (Ontario Greenbelt Foundation 2019). The website was established in an attempt to transcend traditional paper-based interpretive tools (brochures, guidebooks, printed maps, etc.) by sharing location-specific interpretive information in digital form via the internet (Brown and Romanin 2008).

Launched in November 2008, the Greenbelt website broke away from the paper-based model, relying primarily on Internet resources and utilities for information transfer. It also attempted to harness the (admittedly limited) technological capabilities of portable digital multimedia devices and navigation tools of the era (i.e., autonomous GPS units, iPods and other digital media players, early smartphones, etc.) to distribute interpretive information into the field in digital format.



The website featured hypertext, a range of multimedia resources (audio, video, and the Google Maps API, quite new at the time), as well as an integrated custom-built web-based itinerary builder. Due to inherent limitations in mobile technology and data networks of the era, much of the interpretive information had to be downloaded over wifi or wired data connections and printed or stored on other portable devices prior to actually visiting the destinations in the field.

### ***'Points of Interest'***

A simple but important component of the pioneering Niagara Greenbelt website was the creation of a series of geolocated, searchable, internet-based, CMS-managed *point of interest (POI) web pages* arranged within logical categories and subcategories.

Building on the unexceptional but utilitarian precedent of other online directories, the POI pages included standardized 'boilerplate' address information, geographical coordinates, ownership / management information, and contact details (Brown 2011), but amplified considerably upon the directory model by including an array of interpretive information, descriptions of key attributes, text-based and digitally-mediated wayfinding directions, accessibility information, and multiple digital photos of the destination. POI pages were also designed to fulfill a role as general public reference resources as well as interpretive tools.

From the inception of the project, the creation of POI pages was designed to be a simple process, readily mastered by people with only average levels of digital literacy – thereby opening up prospects for engaging a wide and diverse pool of users knowledgeable about individual points of interest to develop and share interpretive content.

This POI-based approach has proven very robust over the past decade. The Greenbelt initiative and multiple subsequent academic and tourism interpretation projects built on the integrated interpretours / Guidetags platform have continued to follow the POI model with good results, producing thousands of independent interpretive and wayfinding POIs, as well as several hundred tours comprised of thematically-linked POIs (Table 1).

Despite early adoption of GPS technology by some smartphone manufacturers, truly practical real-time navigation capabilities were confined largely to proprietary standalone GPS / satnav devices (e.g., Garmin, TomTom, Magellan) until the late 2000s (Malm 2009; Nitins and Collis 2013; see Box 1 in Khan and Loke 2017 for a concise overview). Cornell and Varnelis (2011) wrote, "Locative media remained the stuff of demos and art-technology festivals until 2008 when Apple released the GPS-enabled iPhone 3G."

In anticipation of the eventual adoption of locative capabilities by smartphones, the Niagara Greenbelt Point of Interest pages incorporated Google Maps to show location, and to provide text- and map-based navigational information for pedestrians, cyclists and motorists using the Google Maps web API. In a paper describing the Niagara Greenbelt Gateway Website, Brown and Romanin (2008) discussed the emerging potential of integrated GPS technology for digital interpretation using smartphones:

*"Once these devices hit the mass market (which is surely imminent...), users will be able to simply walk, cycle or drive to points of interest as instructed by directions provided by GPS unit, and upon arrival at specific locations or points of interest, interpretive multimedia information will begin to play automatically. The modular [digital] data and geo-referencing of our POI locations should facilitate an easy transition to this important and transformative new technology."*

That day is, of course, now well upon us. Zieffiro (2012) and Khan and Loke (2017) provided a concise overview of the chronology of locative media. Interestingly, however, despite the ever-increasing uses of geolocation and location-aware apps such as Foursquare and Gowalla for personal navigation and tracking user movements for commercial activities in the intervening years, relatively few apps have fully exploited the potential of automatically integrating GPS and multimedia technology for open-access, user-created, place-based heritage interpretation (Cheverst *et al.* 2017). The *interpretours* platform is certainly among the first, prototyped in 2010-11 and formally introduced in the Google Play Store in Beta format in 2012. Subsequent similar initiatives include *Empedia* (Reiser and Clark 2013), *Placecloud* (2018), and the commercially-oriented *Driftscape* (2019).

### **Building itineraries and tour routes**

The Niagara Greenbelt site also pioneered the online creation of user-defined custom tour routes and itineraries. Traditional itinerary planning used to require substantial local knowledge and independent research to locate and combine destinations, accommodations, and services in an integrated manner. Many travellers are unwilling or ill-equipped to undertake this task, so they either rely on existing published itineraries, delegate the planning and execution of their interpretive experiences to paid experts (e.g., travel agents, pre-planned packaged tour operators), or approach the process in a much more haphazard and ill-informed way, potentially missing many interesting and memorable destinations on the way.



**Figure 2.** Niagara Greenbelt Website itinerary builder web interface

To address these issues (and simultaneously increase the profile of Greenbelt destinations so that visitors would return more frequently and stay longer in the area), we developed a pioneering web-based Itinerary Builder which allowed users to choose any points of interest from the POI page inventory and join them together with mouse clicks into a highly personalized custom tour (integrating the user's own unique start and end points as well, if desired).

POI sites of interest to the user could be added, deleted, or rearranged at will.

When finished, the completed itinerary, route map, directions, POI data sheets, and media content could be downloaded to the user's computer desktop to be saved for personal use, printed for use in the field, or to be named, thematically classified, and shared with other users



of the website. POIs could also be combined into itineraries of more general interest and shared online with a broader niche audience (e.g., interpretive and wayfinding information relevant to birders; wine routes for oenophiles; trip planners for parents of small children seeking family-friendly recreational opportunities, etc.)

### ***The challenges of accessing interpretive content in the field***

Mobile phones the mid- to late 2000s had only very limited data reception, storage, and multimedia playback capabilities, and early mobile data networks were of restricted range and bandwidth. Unfortunately, this meant that most of the interesting and rapidly-evolving digital interpretive content on the Greenbelt website was frustratingly unavailable to users when they were actually *in* the field, unless they were downloaded in advance.

As an interim solution and in anticipation of incipient improvements in mobile data delivery, the Greenbelt site featured hyperlinks to download interpretive content from POI pages directly onto the user's computer (Fig. 3), and subsequently incorporated into a playlist for manual playback in the field on a wide range of (discrete) personal digital devices of the day (e.g., iPods and other mp3 players, smartphones, and even car stereos).



**Figure 3:** Link to download multimedia content to user's home computer on Niagara Greenbelt website

Some interpretive content was provided in the form of [prepared thematic audio tours with specific routing, stops, and timelines](#).

Content from standalone POIs was provided in a more modular format so that it could be downloaded and incorporated into a custom tour itinerary prepared by the user. The goal was to allow individual users to integrate a wide range of destinations into flexible, personally-relevant, enjoyable self-guided tours – but with an eye on seeing all this content eventually transmissible to mobile devices when the relevant consumer technologies caught up.

In the interim, pending these improvements, we made several incremental attempts to assist users to access geolocated interpretive multimedia in the field:

### ***Accessing place-specific interpretive audio by phone***

Before smartphones with GPS capabilities were widely available, location-specific interpretive audio content was made accessible in the field to first-generation (voice-only) cell phone users in a limited but ingeniously effective way by the [[Murmur]] conceptual art project in 2003 ((Murmur Toronto 2010a, 2010b; Zeffiro 2012; Khan and Loke 2017). In this project, cell phone users arriving at specific points of interest were prompted by onsite signage to manually call a local phone number to listen to a pre-recorded audio clip about the destination.

Early locational interpretation (2010)

Heritage Hotline system offered dial-up interpretive information on a regular mobile phone:

Location:	Heritage Hotline Number
WHO IS LAURA SECORD?	905-378-5750
LAURA'S LATER LIFE	905-378-5751
LAURA SECORD GRAVESITE, DRUMMOND HILL CEMETERY	905-378-5752
LAURA SECORD MONUMENT, QUEENSTON HEIGHTS	905-378-5753
LAURA SECORD HOMESTEAD	905-378-5754
WILLIAM HAMILTON MERRITT MONUMENT	905-378-5755
MORNINGSTAR MILL	905-378-5756
DECEW FALLS	905-378-5757
DECEW HOUSE	905-378-5758
DECEW TOWN	905-378-5759

The concept was adapted to interpret historical sites in Niagara anticipation of the War of 1812 Bicentennial celebrations in 2010 (e.g., the Niagara Heritage Hotline, Figure 4). In our version, phoning different numbers on a multi-extension institutional telephone service based at Brock University allowed users to access a range of place-specific interpretive audio content.

Figure 4. Niagara Heritage Hotline – accessing audio-only interpretive content by conventional cell phone.

### Manually accessing web pages on mobile browsers

Once smartphones were routinely equipped with mobile browsers and data plans, it became possible to manually access POI pages in the field, and to view or play the associated multimedia content in real time. However, users were still required to consult onsite signage and / or maps and brochures listing the relevant locations and their associated websites to alert them to the presence of the web-based content. Also, delivering relatively high-bandwidth digital images and audio was very demanding on the phones of the era, and also on their associated data plans, which were typically of very modest capacity and quite expensive.



Figure 5. Accessing POI pages in their web form in the field, using a pre-GPS data-enabled smartphone equipped with a mobile browser and QR code scanning software.

### Place-based QR codes

After 2010, as mobile data plans evolved and phones became more adept at storing and displaying multimedia content on their native browsers, a different approach was employed for delivering interpretive content to users in the field.

The rise of code-scanning smartphone apps prompted us to develop a more sophisticated means of geolocating interpretive content using QR code triggers.

A 2013 digital interpretive project focussing on the Bicentennial of the War of 1812 and the exploits of Canadian pioneer and war heroine Laura Secord provided an ideal opportunity to expand locative media delivery.



**Figure 6:** Trail signage along the Laura Secord Legacy Trail bearing QR codes linked to interpretive multimedia content.



**Figure 7.** QR code on trail sign along the Laura Secord Legacy Trail.

Conventional trail signage was installed for wayfinding along the 32 km long Laura Secord Legacy Trail and elsewhere in Niagara, but a subset of these signs featured QR codes linked to contextually-appropriate, web-based interpretive information about the history and attributes of the areas that the users were passing through (Fig. 6).

By scanning the QR codes on the trail signs with a smartphone, the associated POI page opened automatically on the phone's mobile browser, allowing the user to find the content instantly, read the text, view the images, and – if their data plan was sufficiently robust – play audio and even video clips associated with the destination. A sample of such a trail sign is shown in Figure 7.

## II. The rise of true locative interpretation: Integrated GPS receivers and the advent of the Interpretours / Guidetags digital interpretive platform

The rapid and widespread market penetration of GPS receivers between 2009 and 2014 made accurate and reliable geolocation capabilities a standard feature of most smartphones.

To take advantage of this transformative technology, we developed a **two-part digital interpretive platform** to link places with stories, images, and other multimedia.

1) a content creation, editing, and management system called *interpretours* (the 'back end');

2) a mobile app called *Guidetags* that tracks user location via GPS and delivers context-appropriate interpretive content to the user's smartphone in the field (the 'front end').



Figure 8 a,b,c: The interpretours / Guidetags system.

Users are also able to view the content they create on a standard web browser on any conventional desktop, laptop, or tablet.

At last, users were able to experience completely automatic onsite delivery of multimedia content keyed to both their interests and their physical location, opening up a whole new realm of interpretive possibilities.



Figure 8 d: The interpretours / Guidetags system (cont'd).

### The interpretours content creation, editing, and management system

To make content creation simple, we developed an intuitive drag-and-drop editor interface using HTML5 technology (Fig. 9). The interface allows people with only conventional levels of digital literacy to create and publish sophisticated geolocated interpretive content, incorporating responsive formatted hypertext, digital audio (automatically geo-triggered or manually triggered), interactive online maps and street view images, digital images, video, and an array of plug-in widgets (including increasingly sophisticated augmented reality tools for visualization in the field).

All content is responsive – it can be viewed on small phone screens in the field, or on the web, formatted automatically for computer and laptop screens. A typical standard POI page layout is presented in Figure 10 a and b, and an overview of drag-and-drop page elements is presented in Table 2.

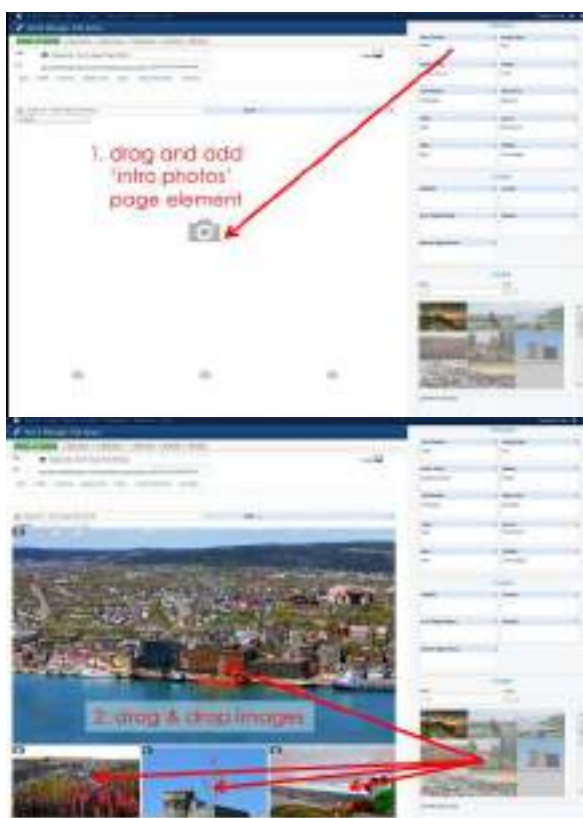


Figure 9. Simple drag-and-drop functionality makes creating media-rich POI pages easy.

The interpretours editor platform can be used to create individual POIs, or join multiple POIs together into media-rich thematic trails, routes, or tours, complete with wayfinding and trail navigation prompts. Specialized Wayfinding POI pages can be created to aid in navigation, and Tour Overview pages provide a description and start-up details for multi-POI thematic tours. Under development are digital signposts (POIs that trigger automatically to indicate important features, hazards, or essential information).

Once a POI page, Wayfinding page, or Tour Overview page is published to the web, the page itself and all its multimedia content becomes immediately accessible on the Guidetags app in the field.

Figure10 a: Top of typical POI page showing common drag and drop page elements.

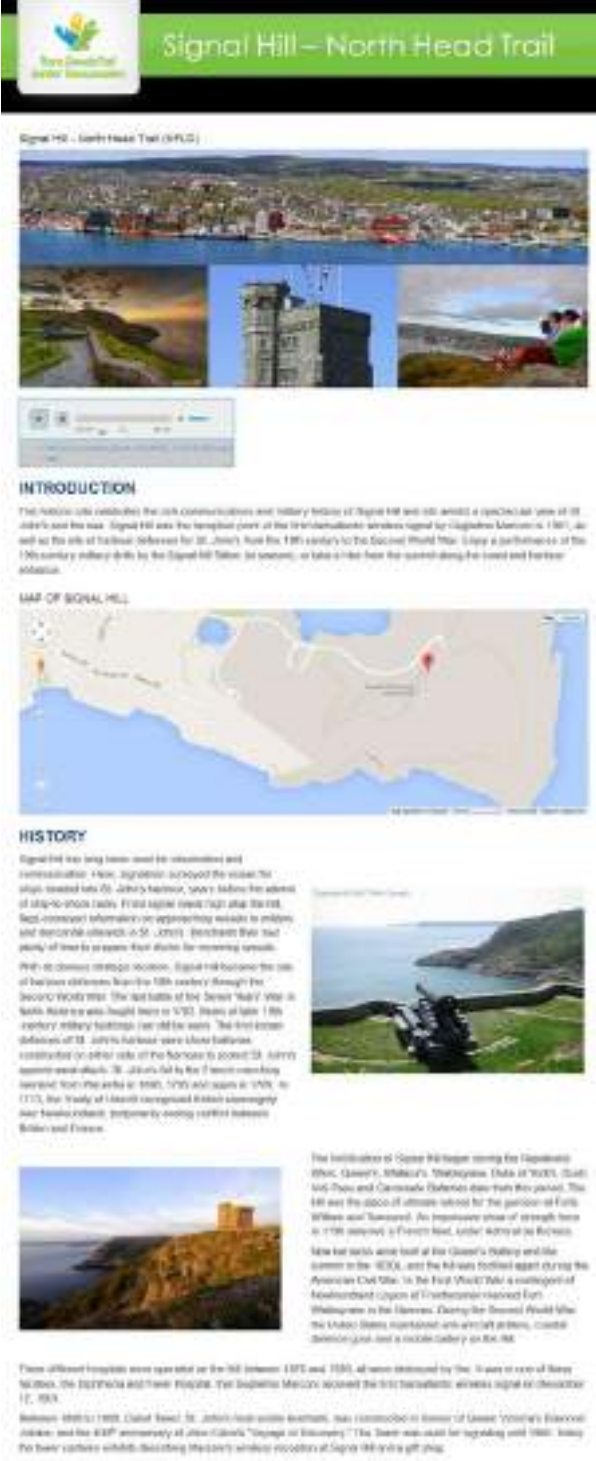



	<p><b>HEADER</b>              (variable depending upon context; CSS formattable)</p> <p><b>INTRODUCTORY IMAGE CLUSTER</b>              (multiple layouts, scalable aspect ratios)</p> <p><b>AUDIO PLAYER</b> – Auto-play with GPS trigger, or manually with tap / click</p> <p><b>FULL WIDTH HYPERTEXT</b></p> <p><b>GOOGLE MAP SHOWING TRIGGER POINT</b>              (map / satellite / street view)              Displays in any Google Map API-supported size and format</p> <p><b>MULTI-COLUMN TEXT and IMAGES</b>              in web view</p> <p><b>MAGAZINE-STYLE LAYOUT</b>              in web view (responsive design re-formats to single column on small screens)</p>
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Figure 10 b: Bottom of typical POI page showing common drag and drop page elements.

	<p><b>YouTube or Vimeo VIDEO PLUGIN</b>                  (controls and captions can be formatted; can play fullscreen)</p>
<p>One of the sites most appealing attributes to an extensive walking trail, called the Linné Trail, on the summit of Signal Hill. On the SE side, a fire wall suggests the wooden abutment wall and full moon batteries which protected the summit from attack. Towards the "harbour" a stone wall (bearing their) represents the area where the Duke of York's Battery was situated. Other interesting facts on the hillside include the ruins of the old fort, the ruins of the old fort and the rugged coastline. Along the trail, a number of interpretive panels provide insight into the history, geography and lifestyle that have played out in a series of sites defining our culture. The Linné Trail is a joint project, funded by the Addison Family Foundation and Parks Canada. The Addison Family Foundation is a registered charitable foundation which "values and supports heritage, the arts, education, and the environment, and is committed to the preservation and promotion of the history, traditions, culture and scenery of the Province of Newfoundland."</p> <p>Signal Hill and Clark Tower have come to symbolize St. John's historic past. Signal Hill National Historic Site will introduce you to many of the most important and interesting aspects of this history.</p>	<p><b>FULL WIDTH HYPERTEXT</b></p>
	<p><b>IMAGE GALLERY (manual advance) or SLIDESHOW (automatic advance)</b></p>
<p><b>NORTH HEAD TRAIL</b></p> <p>The North Head trail is the most popular hiking trail at Signal Hill National Historic Site in St. John's, Newfoundland. It is a 1.7 km trail that starts at the parking lot at the top of the hill. From there, you will descend over the wall, and follow a path to the North Head of the island to St. John's Harbour, where the services where they eventually connect to the Lower Harbour Road. The 1.7 km trail will take approximately 30 minutes and descends about 500 feet. The trail is maintained for safety and enjoyment of the following safety rules are recommended:</p> <ul style="list-style-type: none"> <li>- Young children and persons who have difficulty walking long distances or steep terrain should not attempt the trail. This trail is classified as difficult.</li> <li>- No groups - wear sturdy footwear with ankle support and be sure to tie laces at the end where you tie your gear.</li> <li>- Observe the trail and do not attempt short cuts. Parts of the coastline can be dangerous.</li> <li>- In the event of wet weather, fog, or strong winds you should postpone your hike.</li> <li>- If in doubt or if you have questions, please check with a Park official before starting.</li> </ul>	<p><b>FULL WIDTH HYPERTEXT WITH HEADERS</b></p>
	<p><b>CUSTOM TRAIL MAP</b>                  created using Trail Builder utility</p>



<b>Table 2: Selected 'drag and drop' multimedia features on the Interpretours editor</b>	
<b>Responsively-formatted hypertext</b>	Text with full styling and hyperlink capabilities that can be laid out in full width, two-column, three-column, 1+2 column, and 2+1 column layouts on larger screens, but which is automatically reformatted to single column text on smartphones and other mobile devices. <a href="#">Example</a>
<b>POI page creation templates</b>	Customizable page templates which can be created to facilitate consistent page formatting and layout for specific projects. <a href="#">Example</a>
<b>Digital images and image layouts</b>	Accepts drag-and-drop JPG, GIF, and PNG images in most common aspect ratios, up to 2048 pixels wide. Larger images are automatically down-sampled to appropriate dimensions. Multiple image cluster layouts are possible, with built-in image cropping and aspect ratio management capabilities. <a href="#">Example</a>
<b>Slideshows</b>	Custom series of digital images which advance automatically in a rotating onscreen slideshow. Online image cropping and aspect ratio management capabilities. <a href="#">Example</a>
<b>Image galleries</b>	Custom series of digital images which are scrolled through manually in an onscreen slideshow. Online image cropping and aspect ratio management capabilities. <a href="#">Example</a>
<b>Automatically triggered audio</b>	Audio clips of any length in MP3 and OGG formats, triggered automatically by physical location. <a href="#">Example</a>
<b>Manually triggered audio</b>	Audio clips of any length in multiple formats, inserted as a Soundcloud (third-party) API. <a href="#">Example</a>
<b>Video</b>	Video clips of any length in multiple formats, inserted anywhere on POI page as YouTube or Vimeo URLs. <a href="#">Example</a>
<b>Digital maps</b>	Google Maps API installation <a href="#">Example</a>
<b>Streetview imagery</b>	Google Maps Street View - enabled API installation. <a href="#">Example</a>
<b>Animated GIFs</b>	Created using third party software. Permits the preparation and display of rudimentary historical image visualizations and air photo or map transitions. <a href="#">Example</a>
<b>Juxtapose sliders</b>	Third-party API which allows side-by-side comparison of two similar digital images using a manual slider. Useful for display of rudimentary historical image visualizations and air photo or map transitions. <a href="#">Example</a>
<b>3D viewer plugin</b>	Viewer allows for manual rotation and manipulation of 3D data files in three dimensions. Useful for viewing, inspection, and virtual manipulation of artifacts, sculptures, and other 3D imagery.*
<b>Augmented reality viewers</b>	Superimposes a rendered 3D simulation of an historical or altered landscape or structure over the existing real-world correspondent. Useful for visualising changes in historical landscapes or built environments, new or alternative development scenarios, and forecasted future landscape changes.*
*currently under development	

### ***The Guidetags mobile app***

The app associated with the *interpretours* content creation platform is called *Guidetags*. It runs on Android smartphones, and serves as a sort of ‘personal satnav’ for wayfinding and field interpretation. The app guides walkers, cyclists and motorists from any starting point to their chosen points of interest using the phone’s native GPS technology, automatically triggering location-sensitive wayfinding and interpretive information along the way.

The Guidetags app operates in both online and offline modes, so it can function effectively in remote areas where mobile data signals are not available, or be used by visitors and residents who do not have access to local telecom data plans. When the app is used offline, selected content must be downloaded and stored on the mobile device by the user at any wifi hotspot prior to going into the field.



Figure 12. The Guidetags app home page.

Once in the field, the app operates essentially the same way as it does when online, but with a slightly reduced suite of features (e.g., no Google Street View images or fully interactive map views, which require a live data feed).

### ***Using Guidetags in the field***

To visit a POI or run a tour, app users navigate the opening menus to find the content they are interested in. The user follows a series of audiovisual prompts to navigate to the POI or tour starting point and to begin the interpretive experience.

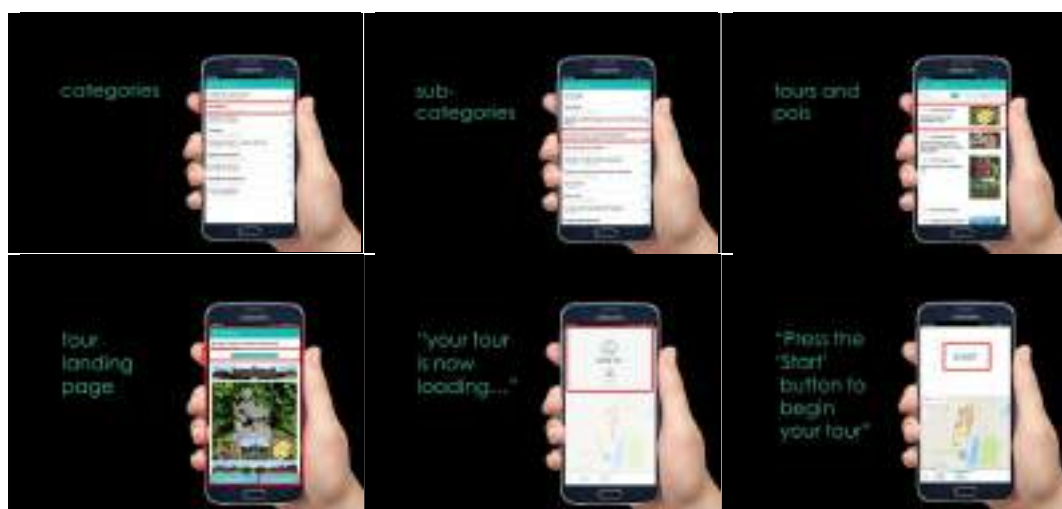


Figure 13: Loading a POI or tour in Guidetags.

Platform users can create interpretive content for: a) individual POIs; b) tours with multiple POIs visited in order along a prescribed route; and c) nonlinear “wander and wonder” interpretive protocols, where a cluster of POIs is mapped and deployed in an area with no particular intended triggering order (free-ranging visitors can wander around the area at will, and interpretive content is deployed whenever they approach a POI of their own volition).

Once they have been created and published, any individual POIs or waypoints on the platform can be assembled into predefined thematic tours for sequential geo-triggered playback. POIs on the tour are organized along a linear pathway that is defined by dragging in a KML map file into the back end of the editor.



**Figure 14:** Individual POIs (left) can easily be combined into a defined tour route (right), defined by dragging and dropping a KML map file into the interpretours editor.

The Guidetags app uses the lat /long coordinates that are incorporated into the digital map on each POI page to trigger the interpretive content. Each POI has a triggering radius (purple circles on Fig. 15) that can be adjusted to optimize performance for any level of granularity, with a minimum practical triggering radius of about 5 m.



**Figure 15.** Tour operation. User (blue dot) follows tour route (purple line). POIs trigger when the user enters the defined trigger radius (purple circles) which surround POIs (orange pins) and waypoints (yellow pins).

When the app is activated and the user (blue dot in Fig. 15) arrives at a POI specified on the map, an audio chime is played, and the POI or wayfinding page opens automatically on the smartphone. If desired, audio narration or sound effects can start automatically, or the user can interact manually with the open page to read the text, scroll through other content, play multimedia files, and view other page features. In all cases, the POI pins on the onscreen map change colour once triggered, providing a visual record of what POIs have been visited.

### ***III. Advantages of an integrated digital interpretive platform, and what it produces***

#### ***Wide relevance and diverse applications***

The *interpretours* / *Guidetags* platform has been used extensively in Canada, on projects ranging from trail guides and interpreted tours for charitable organizations to local history and tourism guides in Ontario and abroad. More than 1200 individuals have been registered as users of the platform. Interpretive content in various forms has been developed and deployed in Thailand, the USA, the UK, and continental Europe (see Table 1 for a partial list of content types, and for links to web versions of the platform content).

#### ***Excellent crowdsourcing capabilities***

Several authors have identified the importance of encouraging broad participation in the creation of locative media (e.g., Løvlie 2011; Cheverst et al. 2017). Because POI page and tour creation on the *interpretours* platform are simple, the platform has very good inherent crowdsourcing potential. This provides locally-knowledgeable lay people, local historians, students, academics, and other substantive subject experts with a way to share their insights, investigations, and stories in a sophisticated manner. It also democratizes the interpretive process - local people from the community with intimate firsthand knowledge about heritage features can tell their stories, share facts and anecdotes in their own voices, and contribute to the building of a rich and multifaceted knowledge base about a place, person, thing or event from a variety of cultural, linguistic, professional, political, and socioeconomic perspectives.

#### ***Independent web presence, integration with existing websites, and customizable app appearance***

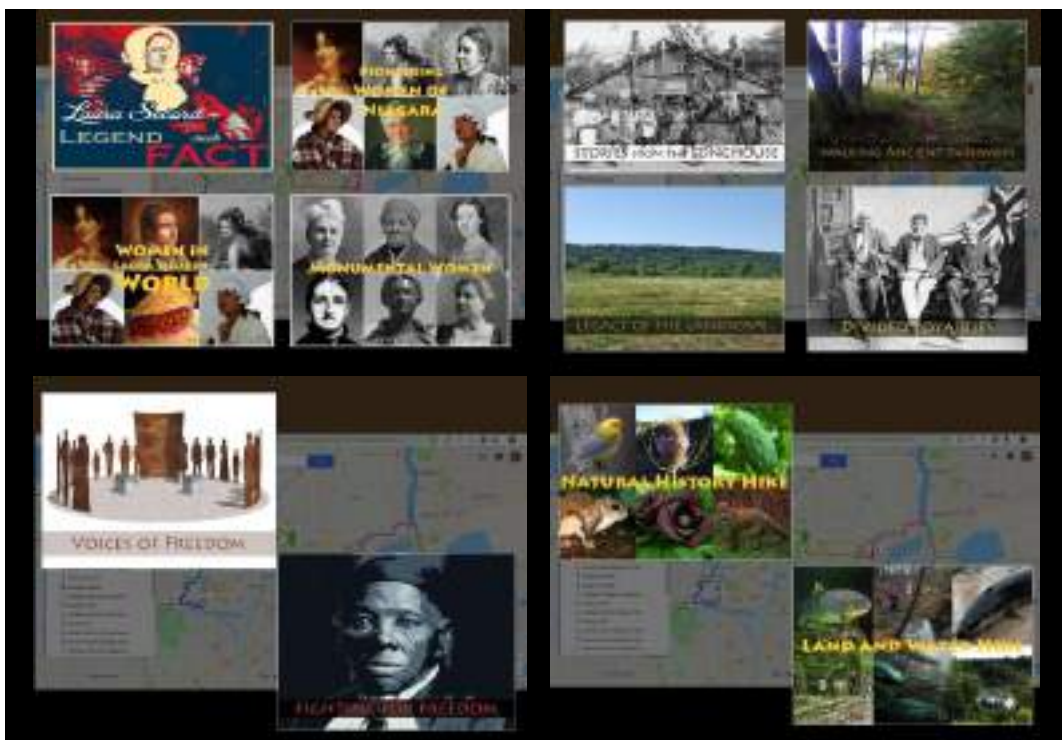
Løvlie (2011) noted the importance of increasing access to locative media, including to people who do not own GPS-equipped devices. Since the *interpretours* platform also displays its content on conventional web pages, the POI pages created on the platform can be easily accessed on conventional computers and tablets. Additionally, if desired, platform content can be seamlessly integrated into existing third-party websites by replicating CMS stylesheets that emulate the appearance of the main site. In addition, the *Guidetags* app can potentially be ‘packaged’ as a custom app that retains all of the functionality and content of the full *Guidetags* platform, but which is branded and identified by the corporate identity of the sponsoring organization, and which features that organization’s own content and graphic identity more prominently upon start-up.

#### ***“Interpretive polyvalence”: one location, many stories***

Numerous authors have discussed the theoretical implications of attaching discrete content to geographical locations (e.g., Speed 2010, Nitins and Collis 2013, Khan and Loke 2017). A given physical location may be significant in several different ways (Cultural Heritage Layers 2009), and this significance may be evoked in a completely different manner depending upon the perspective and editorial stance assumed by the tour creator. Variables include the

interpreter’s cultural, linguistic, or ethnic background and frame of reference, the historical or chronological vantage point that is assumed; the academic, professional, or disciplinary perspectives of the presenter, and the primary interpretive goals and objectives of the POI or tour itself.

An excellent example of this ‘interpretive polyvalence’ can be found along the 32 km long Laura Secord Legacy Trail in the Niagara region of southern Ontario. Originally established to approximate the historical route walked by Canadian heroine Laura Secord to warn the British of an impending American invasion during the War of 1812, the trail and the landscape it passes through have significance that transcend the route’s origins to commemorate Secord’s trek. Interpretive tours reflecting important *alternative* themes along the route were also developed and deployed.



**Figure 16.** Multiple interpretations of the same linear trail: Pioneering Women, First Nations Perspectives, Black History, Natural History, Geology, and Hydrology.

As a result, hikers along various sections of the trail may choose to hear the original Secord narrative, or select from a series of other contextual and place-based interpretive tours that view the route through the lenses of First Nations heritage, Black history, pioneering women of the region, or natural history, geology, and hydrology of the region. In all cases, wayfinding prompts and location-specific interpretive content is delivered in a manner which emphasizes the chosen thematic perspective. The various tours incorporate a range of interpretive tools and techniques, ranging from dramatized first-person audio narratives through First Nations storytelling to conventional third-person expository narration.

**Table 2:** Examples of Interpretours/ Guidetags POIs and tours

**FRIENDS OF LAURA SECORD (Nonprofit community group)**

- General points of interest associated with the Secord legacy: <http://www.guidetags.com/friends-of-laura-secord/explore> (294)
- Cultural Heritage:
  - Laura Secord Heritage Routes: <http://www.guidetags.com/friends-of-laura-secord/explore/laura-secord-heritage-routes>
  - Pioneering Women: <http://www.guidetags.com/friends-of-laura-secord/explore/friends-of-laura-secord-heritage-routes/pioneering-women>
  - First Nations Perspectives: <http://www.guidetags.com/friends-of-laura-secord/explore/friends-of-laura-secord-heritage-routes/first-nations-perspectives>
  - Black History: <http://www.guidetags.com/friends-of-laura-secord/explore/friends-of-laura-secord-heritage-routes/black-history>
  - Natural History: <http://www.guidetags.com/friends-of-laura-secord/explore/friends-of-laura-secord-heritage-routes/fls-trillium-natural-history>
- Trail Guide and Turn by Turn Directions: <http://www.guidetags.com/friends-of-laura-secord/explore/laura-secord-legacy-trail-turn-by-turn-directions>

**HERITAGE INTERPRETATION and TOURISM – ONTARIO (178)**

**Niagara Destinations**

<http://www.guidetags.com/mindmaps/explore/niagara-destinations>

<http://www.guidetags.com/mindmaps/explore/tour-iasc-3p93>

**Niagara Greenbelt Destinations (migrated – under revision) (584)**

<http://www.guidetags.com/niagara-greenbelt/explore>

(Mirror site of original niagaragreenbelt.com website: <http://brocku.niagaragreenbelt.com> )

**PUBLIC HISTORY - ONTARIO (11)**

*Western University Public History Program – Death, Disgrace and Disaster in Victorian London*

<http://www.guidetags.com/mindmaps/explore/western-u-public-history>

**FORMAL HERITAGE DESTINATIONS**

**Herstmonceux Castle Interpretation (East Sussex, UK)**

<http://www.guidetags.com/mindmaps/explore/herstmonceux-castle-interpretation>

**HISTORICAL PERSPECTIVES ON LONDON, PARIS, and BERLIN**

<http://www.guidetags.com/mindmaps/explore/hist-3p55>

**Table 2 (cont'd):** Examples of Interpretours/ Guidetags POIs and tours

**MUNICIPAL HERITAGE DISTRICT MAPPING – London, Ontario**

<http://www.guidetags.com/heritage-district-london-ontario/explore>

**TOURISM AND ACADEMIC DESTINATIONS in THAILAND**

<http://www.guidetags.com/thailand/explore/thailand-guides>

**ECOLOGICAL INTERPRETATION and LANDSCAPE CHANGE – Niagara Peninsula, Canada**

<http://www.guidetags.com/mindmaps/explore/local-landscape-reports-niagara>

<http://www.guidetags.com/mindmaps/explore/tour-geog-2p94-human-dominated-ecosystems>

**MUSICAL HERITAGE - International**

**USA**

**Alternative Rock and Grunge in Seattle** (Seattle, Washington, USA)

<http://www.guidetags.com/mindmaps/explore/kyle-seattle>

**United Kingdom**

**Jimi Hendrix in London (London, England)**

<http://www.guidetags.com/mindmaps/explore/handel-and-hendrix-in-london>

**CONCEPTUAL ART – ONTARIO** (3, all in progress)

*Niagara Falls Poetry Project (Andrew Porteous) – in progress – Geolocated poems in Niagara Falls* In progress; see <http://niagarapoetry.ca/> for source material

*Stroll – Elizabeth Chitty (Rodman Hall) – in progress*

<http://www.guidetags.com/mindmaps/explore/site-lines/2592-stroll-episode-0-introduction>

*Maggie Groat – views (Rodman Hall) – in progress*

<http://www.guidetags.com/mindmaps/explore/groat-exhibition>

**Features under development**

*Academic and educational applications*

In addition to its obvious relevance to tourism and leisure, the *interpretours* platform has already shown very promising academic and educational utility as well. To date, several hundred undergraduate and graduate university students have used the platform to create POIs and thematic tours of tourism sites, to develop architectural heritage and historical tours, and to create profiles of locations that have undergone extensive human-induced landscape changes (see Table 1 for examples).

The next phase of the platform will expand the capabilities of the Guidetags app from *playback* of interpretive content to *active content creation*. Upcoming releases of the app will incorporate real-time field data collection capabilities, greatly improving its academic relevance. POI and tour creators, researchers, and archivists will be able to easily collect

relevant wayfinding and interpretive information in the field for instantaneous posting or subsequent editing and processing. App capabilities will include: a) creation of geolocated POIs and linear tour routes in real time; b) capturing location-specific digital images, audio, video, 360 degree panorama images, and potentially even 3D artifact scans, storing the information in a logical geotagged manner in the cloud via their smartphones, c) creation of ‘permanent’ geolocated digital signposts and geofences to provide important wayfinding, safety, and strategic information, and d) capabilities for spontaneous draft tour authoring and the creation of ephemeral POIs (skytags) to mark short-term events and occurrences.

### ***Acoustemology, digital narrators, text to speech, and electronic translation***

Many authors have commented upon the importance of audio in locative media, emphasizing how aural interpretation (acoustemology) is both an important interpretive tool in its own right, and is also less likely to interfere with the experience of the actual physical space that is being visited than are visual media (Feld 1982, 1994, 1996; Schama 1995; Urry, 1995, 2002; Cosgrove 1998; Cresswell 2003; Behrendt 2012, Galloway 2018). Many POIs and most tours on our platform rely primarily upon audio to convey content, but not all content creators have the requisite rhetorical skills or voice characteristics to produce agreeable, accessible narrative content.

Though skilled human narrators are almost always superior to machine-generated voices, recent advances in text-to-speech technology have produced synthetic digital voices capable of reading written text in a passable, human-like manner. Certain POIs and tour routes on the Guidetags system use audio files containing narration generated by text-to-speech engines (e.g., [Herstmonceux Castle Garden and Sculpture Tour](#); [Voices of Freedom Tour](#)). We plan to introduce native text-to-speech reading capabilities on the app, making it possible to replace conventional pre-recorded audio narration with native text-to-speech synthesis.

Obviously, the quality of the resulting narration will be contingent upon the quality of the third-party translation algorithms and voice synthesizers, but such utilities have already improved very rapidly in a relatively short time. Though not yet a convincing replacement for a live narrator, such content can be used convincingly for navigation cues and basic information. This also makes editing narrated content very simple, so modifications will not require the services of a live narrator and a recording studio.

Text to speech technology will also allow users to tailor narration voice quality, pitch, gender, accents, and inflections to their own preferences or perceptual needs, and save bandwidth by replacing bulky audio files with much smaller text files.

Using the Google Translate API, we have already incorporated instant translation capabilities on some web-based content into over 80 languages (see [www.friendsoflaurasecord.com/2018/01/11/laura-in-your-language/](http://www.friendsoflaurasecord.com/2018/01/11/laura-in-your-language/) , or open [www.friendsoflaurasecord.com](http://www.friendsoflaurasecord.com) on a computer web browser and look for the translate button in the top left corner of the screen ). It is our intention to add similar capability to the app. Narration scripts or interpretive text that have been instantaneously translated to another language as *text* can then also be read to the user in real time as *audio narration*, using text to speech utilities that employ voice synthesis software tailored to the language of translation.



These recent advances in digital voice technologies, text-to-speech capabilities, and electronic language translation engender opportunities for easily sharing digital interpretive resources with a multilingual, multicultural audience.

### ***Geolocated Augmented Reality (G-AR) and Virtual Reality***

Rapid advances are being made in the ability to render and display 3D image files of artifacts, sculptures, buildings, and natural objects (Cultural Heritage Layers 2009; Khan and Loke 2017; Saorin *et al.* 2017), as well as the capacity to digitally map animated elements onto live scenes (e.g., a virtual tour guide inserted into a real landscape or streetscape) (Khan and Loke 2017). As technology improves, so does the ability to effectively render and display convincing simulations of historical or altered landscapes or structures, digitally scaled and pinned in place over the existing real-world scenario – thereby allowing the user to visualize the changes in real time in 3D. Such technology is useful for visualising changes in historical landscapes or built environments, previewing new or alternative development scenarios, and forecasting future changes to landscapes, streetscapes, or buildings.



**Figure 16.** 3D scan of Mildred Peel's iconic 1901 bust of Laura Secord.

We have already experimented with 3D scanning of a historically significant sculpture, Mildred Peel's 1901 bust of Laura Secord (FLS 2013), and will be adding the ability to view and manipulate scanned artifacts of this nature to the platform. Eighteenth century digital recreations of the interior architecture of Herstmonceux Castle will also be deployed in the near future.

### ***Fine-grained proximate triggering: High-resolution GPS, BLE, NFC, and QR codes***

Løvlie (2009) discussed the importance of *granularity* in locative media, identifying both the need to achieve fine-grained resolution for complex environments, and the importance of effectively managing coarse-grained access. The current *interpretours / Guidetags* system can reliably trigger content down to a radius of about 5 metres under optimal conditions, but new releases will be capable of greater precision when triggering geolocated interpretive content, integrating high resolution GPS, Bluetooth beacons, NFC, and native scanning of QR codes.

The 2016 introduction of the European Galileo satellite navigation system has already improved prospects for high-precision geolocation using satellite information. Current horizontal and vertical position measurements have a reported resolution of under one meter. This level of resolution is potentially very useful for precise triggering of interpretive content in fine-grained environments, and will also assist in location-sensitive field-based data collection, POI development, and route creation (although ongoing access to these high-resolution locational services may require paid subscriptions).

*Bluetooth Low Energy (BLE) signal beacons* are commercially available for linking portable devices with concise digital data packets in fine-grained physical locations, and integration with our platform is forthcoming. These beacons are used to send limited amounts of data to compatible phone apps or operating systems, and to passively follow the location of users to prompt social media check-ins or notifications, or to deliver location-specific marketing messages or context-relevant instructions).

*Near-field communications (NFC)* can also be used to send data between an inexpensive NFC hardware tag associated with an object or location of interest and an NFC-equipped smartphone over distances of up to 4 cm. Widely used for contactless payment systems, they can also be harnessed for limited-content data transmission and as a gateway to more robust modes of digital communication (Ortiz 2008), but also require physical hardware on both ends to operate.

Less expensive to create and maintain, and not requiring any transmission hardware or energy sources to operate, scannable codes such as barcodes and QR codes are easily used to link individual artifacts or fine-grained physical locations with their interpretive content. Our platform is already capable of using QR codes to access web-based versions of POI page content (see examples above). Scanning utilities are readily available free of charge or are already integrated into phones. In-app code scanning capabilities will be introduced, allowing direct access to fine-grained interpretive content through so-called ‘deep-linking’ (i.e., scanned QR-coded or bar-coded links which point directly to the Uniform Resource Identifiers for individual pages in the app) (Deep linking 2019).

Even more exciting, however, is the possibility of simply pointing one’s smartphone camera at an artifact, object, streetscape, or landscape to automatically trigger interpretive information. This will likely be accomplished by adapting emerging technology currently used for facial and object recognition to trigger interpretive information based upon the physical characteristics of each target in conjunction with its detailed physical location. Though still in the early stages of development, recent progress in the field shows promise that these object identification capabilities will soon be showing up on smartphones (e.g., Wiggers 2018).

## **Conclusions**

It is clear that we are on the threshold of a revolution in the use, capabilities, and democratization of locative media. To address the void in flexible, simple-to-use locative media content authoring and deployment applications, we have developed the two-part *interpretours / Guidetags* digital interpretive system that we believe addresses most of the needs for a flexible and adaptable platform that appeals to a widespread user base. Future iterations of the platform will take advantage of its modular design and flexible, responsive architecture to incorporate new tools and techniques in locative media interpretation as they arise.

## References

- Baeker, Greg and David T. Brown. 2010. Mapping Community Identity: The Power of Stories. *Municipal World*, September 2010 (21-23).  
<https://www.municipalworld.com/articles/mapping-community-identity-the-power-of-stories/>
- Baeker, Greg, and Jeannette Hanna. 2009. Culture, Authenticity, Place: Connecting Cultural Mapping and Place Branding. *Municipal World*, February 2009 (9-13).  
<http://www.mdbinsight.com/wp-content/uploads/2011/08/Baeker-Feb2009.pdf>
- Brown, David T. 2011. A wish list for cultural resource mapping. Chapter 11 (pp. 101-116) in Baeker, Greg. *Rediscovering the Wealth of Places: A Municipal Cultural Planning Handbook for Canadian Communities*. Municipal World Municipal Knowledge Series, Union, Ontario.  
<https://www.municipalworld.com/product/rediscovering-the-wealth-of-places-item-0025/> .
- Brown, David T. and Renato Romanin. 2008. Digital Discovery and Electronic Explorations: Promoting Sustainable Tourism in the Niagara Greenbelt. Leading Edge Conference 2008 – Monora Park, Orangeville, Ontario. Retrieved 2019-05-22 from  
<http://niagaragreenbelt.com/DigitalDiscoveryElectronicExplorations.pdf> .
- Carter, James. 1994. Rejoice in the word hoard - the role and power of writing in interpretation. Retrieved 2019-05-22 from [https://www.jamescarter.cc/wp-content/uploads/2014/09/Writing\\_interpretation\\_James\\_Carter.pdf](https://www.jamescarter.cc/wp-content/uploads/2014/09/Writing_interpretation_James_Carter.pdf)
- Carter, James. 1997 (revised 2001). *A Sense of Place: An Interpretive Planning Handbook*. Scottish Interpretation Network. Retrieved 2019-05-22 from [https://www.jamescarter.cc/wp-content/uploads/2014/09/A\\_Sense\\_of\\_Place\\_James\\_Carter.pdf](https://www.jamescarter.cc/wp-content/uploads/2014/09/A_Sense_of_Place_James_Carter.pdf) .
- Carter, James. 2008. Five questions [about heritage interpretation]. *J. Assoc. Heritage Interpretation* 13(3)4-5. Retrieved 2019-05-22 from [https://www.jamescarter.cc/wp-content/uploads/2014/09/Five\\_questions\\_James\\_Carter.pdf](https://www.jamescarter.cc/wp-content/uploads/2014/09/Five_questions_James_Carter.pdf) .
- Carter, James. 2010. Communication or Communion- what's really happening in effective interpretation? Retrieved 2019-05-22 from [https://www.jamescarter.cc/wp-content/uploads/2014/09/Effective-interpretation\\_James-Carter.pdf](https://www.jamescarter.cc/wp-content/uploads/2014/09/Effective-interpretation_James-Carter.pdf) .
- Carter, James. 2011. Don't fence me in. *J. Assoc. Heritage Interpretation* 16(1):14-16. Retrieved 2019-05-22 from [https://www.jamescarter.cc/wp-content/uploads/2014/09/Dont\\_fence\\_me\\_in\\_James\\_Carter.pdf](https://www.jamescarter.cc/wp-content/uploads/2014/09/Dont_fence_me_in_James_Carter.pdf) .
- Cheverst, K., Turner, H., Do, T., & Fitton, D. 2017. Supporting the consumption and co-authoring of locative media experiences for a rural village community: design and field trial evaluation of the SHARC2.0 framework. *Multimedia Tools and Applications*, (4), 5243.  
<https://doi-org.proxy.library.brocku.ca/10.1007/s11042-016-3515-y>



Cornell L and K. Varnelis. 2011. Down the line. Frieze (141). Retrieved 2019-05-23 from <http://www.frieze.com/issue/article/down-the-line/> .

Cultural Heritage Layers: Integrating Historic Media in Augmented Reality. 2009. 2009 15th International Conference on Virtual Systems and Multimedia, Virtual Systems and Multimedia, 2009. VSMM '09. 15th International Conference On, 193. <https://doi-org.proxy.library.brocku.ca/10.1109/VSM.2009.35>

FLS (Friends of Laura Secord). 2013. Scanning Laura Secord in 3D! Retrieved 2019-05-23 from <https://www.friendsoflaurasecord.com/2018/02/01/scanning-laura-secord-in-3d/> .

Gordon, E. and de Souza e Silva, A. 2011. Net Locality: Why Location Matters in a Networked World. Chichester: Wiley-Blackwell.

Guinness Book of World Records. 2019. First Tourist Guide: Itinerarium Burdigalense. Retrieved 2019-05-19 from [www.guinnessworldrecords.com/world-records/first-tourist-guide](http://www.guinnessworldrecords.com/world-records/first-tourist-guide) .

HCNSW (Heritage Council of New South Wales (Australia)). 2005. Heritage Information Series: Heritage Interpretation Policy. <https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/interpretationpolicy.pdf>

Hemment, Drew. 2006. LEA (Leonardo Electronic Almanac) Locative Media Special issue. Accessed 2019-05-13 at [www.leoalmanac.org/journal/vol\\_14/lea\\_v14\\_n03-04/guested.pdf](http://www.leoalmanac.org/journal/vol_14/lea_v14_n03-04/guested.pdf) . MIT Press, 2006.

Khan, Mohammad and Lian Loke. 2017. Locative Media Interventionism – a Conceptual Framework for Critical Review of Augmented Reality Applications in the Participatory Spatial Design Context. Archnet-IJAR, (1), 181. <https://doi-org.proxy.library.brocku.ca/10.26687/archnet-ijar.v11i1.1140>

Malm, Andre. 2009. GPS and Mobile Handsets – 4th edition (PDF). Berg Insight, Gothenberg, Sweden. <http://www.berginsight.com/ReportPDF/Summary/bi-gps4-sum.pdf>

Murmur Toronto. 2010a. Website. Accessed 2019-05-23 at <http://murmurtoronto.ca>.

Murmur Toronto. 2010b. About. Accessed 2019-05-23 at <http://murmurtoronto.ca/about.php> .

Mobile deep linking. Retrieved 20 May 2019 from [https://en.m.wikipedia.org/wiki/Mobile\\_deep\\_linking](https://en.m.wikipedia.org/wiki/Mobile_deep_linking)

Niagara Greenbelt Gateway Website. 2008. Archived at <http://brocku.niagaragreenbelt.com>.

Ontario Greenbelt Foundation. 2019. About the Greenbelt. Retrieved 2019-05-23 from [https://www.greenbelt.ca/about\\_the\\_greenbelt](https://www.greenbelt.ca/about_the_greenbelt) .

SAORIN, José Luis, Carlos CARBONELL-CARRERA, Jorge de la Torre CANTERO,

- Cecile MEIER, and Drago Diaz ALEMAN. 2017. Three-Dimensional Interpretation of Sculptural Heritage with Digital and Tangible 3D Printed Replicas. Turkish Online Journal of Educational Technology - TOJET, [s. l.], v. 16, n. 4, p. 161–169, 2017. Retrieved 22 May 2019 from <https://files.eric.ed.gov/fulltext/EJ1160651.pdf> .
- Ortiz, C. Enrique. 2008. An Introduction to Near-Field Communication and the Contactless Communication API. Retrieved 2019-05-22 from <https://www.oracle.com/technetwork/articles/javame/nfc-140183.html> .
- Tuters, Mark and Kazys Varnelis. 2009. Beyond Locative Media. Retrieved 2019-05-24 from [http://locative.articule.net/wp-content/uploads/2013/06/TutersVarnelis\\_BeyondLocativeMedia.pdf](http://locative.articule.net/wp-content/uploads/2013/06/TutersVarnelis_BeyondLocativeMedia.pdf) .
- Throsby, D. 2008. The concentric circles model of the cultural industries. Cultural Trends, 17(3), 147–164. <https://doi-org.proxy.library.brocku.ca/10.1080/09548960802361951>
- Wiggers, Kyle. 2018. Google researchers develop AI for better facial recognition and object detection on smartphones. VentureBeat. Retrieved 20 May 2019 from <https://venturebeat.com/2018/08/07/google-researchers-develop-ai-for-better-facial-recognition-and-object-detection-on-smartphones> .
- Wilken, Rowan (ed.) 2012. Locative media: From specialized preoccupation to mainstream fascination. Convergence: The International Journal of Research into New Media Technologies 18(3) 243-247. Retrieved 2019-05-22 from <https://journals.sagepub.com/doi/10.1177/1354856512444375> .
- Zeffiro, Andrea. 2010. A location of one's own: A genealogy of locative media. Convergence: The International Journal of Research into New Media Technologies 18(3) 249-266. Retrieved 2019-05-22 from <https://journals.sagepub.com/doi/abs/10.1177/1354856512441148> .

## **Environmental friendly and non-environmental friendly factors of logistics service provider impact to customers' satisfaction and customers' loyalty**

**Krittapat Pitchayadejanant<sup>1</sup>, Sirintra Klingklai<sup>2</sup>, Phatcharaphong Sanpimai<sup>3</sup>,  
Varissara Jangsamsi<sup>4</sup>, Jassada Boonmak<sup>5</sup>, Thian Pookaew<sup>6</sup>**

Lecturer in Logistics Management<sup>1</sup>  
Burapha University International College  
Chonburi 20131, Thailand  
Email: [krittapat@go.buu.ac.th](mailto:krittapat@go.buu.ac.th)

Undergraduate Students in Logistics Management<sup>2,3,4,5,6</sup>  
Burapha University International College  
Chonburi 20131, Thailand

### **Abstract**

This research studies about factors in both non-environmental friendly factors and environmental friendly factors that affect the selection of customers on Third Party Logistics Company and also affecting to customers' satisfaction and customers' loyalty. The sample of the study is undergraduate students from 11 universities in every region of Thailand who are using shipping service such as Kerry Express, Thai Post, or others. The sample size of respondents is 452 observations. The results of collected data from questionnaires answers were analyzed by using multiple regression analysis. In our results, there are 5 determinants from non-environmental friendly logistics: specialization, focusing on specific industry, correctness, using IT system, delivery frequency, affect customers' satisfaction. For environmental friendly logistics is using recycle and reuse packaging in logistics. Specialization in shipping service has the highest affected on customers' satisfaction, as well as customers' loyalty.

**Keyword:** Green Logistics, Third Party Logistics selection, Environmental friendly

### **1. Introduction**

Due to PM 2.5 dust has occurred in a few months ago in Thailand which caused by building construction or increment of transportation in Thailand. The other serious crisis that affect the daily life in nowadays are global warming and climate changes, both are mostly manmade disasters. The increased volumes of carbon dioxide and other greenhouse gases released by the burning of fossil fuels, land clearing, agriculture, and other human activities, are believed to be the primary sources of the global warming that has occurred over the past 50 years.

However, most extant studies on green third party logistics more focus only on selecting third party logistics for the supplier or the manufacturer, a huge business or company as a target customer for outsource logistics services. Presently, there are other retailers and vendors who are using this kind of logistics services such as; e-commerce traders, online vendors, online shop and messenger. As the result, the quantity in logistics markets becomes enormous which is not less than the manufacturing industry.

With the growth in economics, logistics is essential part of economic growth and it causes the pollutions; air, noise, sea and etc. Then, logistics third party companies have to consider to be green third party logistics in order to reduce amount of pollutions and make a sustainable of green third party logistics. In addition, the awareness and consciousness of undergraduate students who are the future mankind, should be considered in order to find out the strategy to increase their awareness and consciousness. In addition,

many undergraduate students can earn because of online seller then they have experience on sending the parcel and use the service from third party logistics providers.

To address this research gap, researchers desire to study the awareness of people towards third party logistics selection, especially green logistics providers' selection. As a consequence, this paper aims to analyze the information of what factors that can impact on the decision of selecting third party logistics companies in Thailand both green attributes and non-green attributes. Researcher have accumulated the available information in extended literatures to support the in-depth analysis of the factors that determine third party logistics selection of undergraduate students.

## 2. Literature Review

### 2.1) Environmental friendly logistics factors

Nowadays, most of populations who relatively in business of transport logistics are more considering and awaking of environment. Most of manufacturing start to be green development. They are considering environment that might impact on their operations. Chancing to be more environmental friendly concept within the organization by focus on green purchasing and eco design in between department in organization. Jayarathna, C. P. (2016) also improve their company to adopt in green and considering in cost, delivery, quality, strategic alliance, service, pollution control, green product, environment management which are the determinants factor of the supplier selection process with green consideration (Gurel, O., Acar, A. Z., Onden, I., & Gumus, I., 2015).

For creating sustainability in environment, resources are more understandable for developing in environmental sustainability issues in the logistics service industry by analysis and study from vehicle energy efficiency, inter-modality, warehousing and green building, recycling materials and waste reduction including reverse logistics, Environmental Management Systems (EMS), green certifications, and environmental collaboration (Evangelista, P., Santoro, L., & Thomas, A., 2018).

Some of company may consider purchasing green which is also some of the main factor that important with environment and concerned about factor of choosing service. Purchasing green consider many factors such as eco-driving, CO2 declaration to reduce carbon dioxide around the road, choosing alternative offered for each type of transport, wide climate protection programmed, emission calculations, customized solutions, environmental friendly vehicle, regulations for vehicles, intermodal solutions and etc. All these factors are considered before becoming green purchaser (Evangelista, P., Hugel-Brodin, M., Isaksson, K., & Sweeney, E., 2011).

Regarding to all researcher found that a lot of people begin to be greener than the past. Some are adaptation to be green environment trend but those companies may not easily to be green suddenly because a lot of factors are barrier to be green environment such as cost might very high to be chance to be green rapidly, quality to be green sometime the product might not high quality if compared to another company that do not concern, information and equipment system because it is the new trend, then information and equipment are not enough support, not flexibility, financial position, location reputation (Aguezzoul, A., 2014). From all these barriers, most of company cannot change rapidly but they will gradually adopt to be green for environment and resources because they are limited.

### 2.2) Non-environmental friendly logistics factors

Today, third party logistics are more than just transportation or warehousing solution providers. The third party logistics providers can provide more services to companies and customer, and can also assist the more local customers, looking to cut operational costs or focus on core competencies.

Coltman et al. (2006) have discussed the logistic structure as 'connective tissue' comprising of cost, delivery time, quality, efficiency. It is clearly that use of third party logistics services can help organization's



achieve results, both in terms of customer satisfaction and logistics cost reduction (Sahay and Mohan, 2006). Sadia S. Ali (2014) have tried to study intention of outsourcing logistics to third party logistics service providers and identify critical drivers that drive the intentions of outsourcing complete logistics solution to specialised third party logistics service providers. Performance Measurement Systems in logistics can be a comprehensive framework for measuring performance in a third-party logistics provider such as, capacity, delivery frequency, on-time delivery performance, and etc. (Maria L. Domingues and Vasco Reis and Rosário Macário, 2015).

Claudia Karrapan and Mndeni Sishange and Elana Swanepoel and Peter J. Kilbourn (2017) have studied that logistics provider is a growing business by using benchmarking criteria for evaluating third-party logistics provider's selection. The third party logistics service are outsourced to have shifted from being a single type of service to a world wide range of services, including advanced supply chain solutions, resulting in an increase in the trend of logistics outsourcing. Most major sectors, such as information technology, automotive, fast-moving consumer goods (FMCG) and pharmaceutical and retail sectors outsource their logistics services to third party logistics (Mothilal et al. 2012). Several factors can impact to this market including government's support, increased awareness among users and the support of the technology are productive in this growth. The main focus should be to concentrate on the criteria for the selection of the third party logistics provider to relationship experience between shipper and the third party logistics providers.

Currently, third party logistics service companies focus to offer quality services at affordable pricing and delivering to gain more customer. With the ever changing requirement of the end customers, the criteria once selected will not be adequate to support in the environment of the present time. So these criteria must be reviewed time and again for successful, healthy and ever growing relation among all the partners of the supply chain (Rajesh Gupta and Anish Sachdeva and Arvind Bhardwaj, 2011).

### 2.3) Customers' Satisfaction

Most researchers have realized and looked at the importance of customer satisfaction. Customer satisfaction is determined by the mood and experience as a comparison after the customer's purchase and expectations before buying the product and the efficiency received. The experience of products / services and these emotional reactions come from confirming the effectiveness of consumers from products or services and consumer expectations in the operation (Mentzer, J. T. and L. R. William ,2001).

Based on customer satisfaction, it means the value of the consumer's awareness of purchasing a particular product or service, as well as the satisfaction of using the service during the trading process (Oliver, R.L. ,1981). Satisfaction can be linked to feelings of acceptance, happiness, relief, joy and happiness. However, feelings of satisfaction or disappointment caused by comparison of products and services that relate to consumer expectations. If their perception exceeds their expectation, they will show up the satisfaction. In contrary, they will be disappointed.

Customer satisfaction lies at the core of a sequence of relationships, including the antecedents of customer satisfaction like perceived quality and perceived value with the consequence of customer satisfaction (Hoyer, W. D. & M ac Innis, D. J., 2001).

### 2.4) Customers' Loyalty

Loyalty, in general use, is a devotion and faithfulness. Loyalty is defined as a long-term commitment to repurchase involving both a favorable attitude and repeated patronage (Li et al., 2012). Gil-Saura et al. (2010) stated the better customer loyalty has been affected by having good operation and good relationship with customer.

Nowadays, 3PL industry has high competition. The loyalty of the brand is very important because if the customer returns to use service again, it will be more sustainable in term of profit increment. There are

twelve factors for customer to repurchase: expertise, reliability, ability to provide relevant information, attention, reputation, price, financial condition, convenient to use, service, geographical specialization, product specialization, and size. Aicha A. (2014) showed service quality and cost are the most important criteria and followed by reputation, range of service, and relevant past experiences. Bhatna-gar et al. (2014) suggested important persuasion which is promotion. Customer would repurchase the company which have attraction on promotion for them (Sze Hui Chin et al., 2013)

### 2.5) Customers' Satisfaction to Customers' Loyalty

The service ensures continuity of service and equipment upgrades and services to customers who regularly use the service satisfaction (Andersson & Norman, 2002; Boyson et al., 1999; Gattorna & Walters, 1996). The reputation of those who provide the services meant that public opinion into account, the service fast service that satisfies the needs of the customer. The reputation of service providers plays an important role in the selection. This is more involved in the screening of providers (Lynch, 2004; Thompson, 1996; Boyson, 1999). The service providers have to improve the quality of the services and reliability: customer service, convenience, easy-to-use, quality management, preliminary notification of the cessation order cycle, timeliness, consistent services, price, location, wide range of services and reduce costs, with special expertise reduces labor, technical ability. They are non-green friendly determinants which lead to affect the customer satisfaction for using the service (Spencer MS, Rogers DS, Daugherty PJ 1994).

The reused materials in 3PL service changes the way of transportation to be more effective and costless (Nijolė Batarlienė & Aldona Jarašūnienė, 2017). Global service has now changed and increased awareness about the sustainability of the global environment such as the use of vehicles that cause less pollution and use non harmful hardwearing material.

Environmental friendly logistics are popular because global logistics companies consider preventing pollution (Claudia Karrapan & Mndeni Sishange & Elana Swanepoel & Peter J. Kilbourn, 2017) by reducing carbon dioxide from transportation which preserve the environment and increase customer satisfaction (Sadia Samar Ali & Remeshwar Dubey, 2017).

## 3. Research Methodology

### Population and sample

The population used of this study are undergraduate students who are using shipping companies: Kerry, Thai post and others. The sample are determined and gathered from 11 government universities: Chiangmai University, Khon Kaen University, Mahidol University, Chulalongkorn University, Kasetsart University, Thammasart University, Silpakorn University, King Mongkut's Institute of Technology Ladkrabang, Burapha University, Prince Songkla University, and Suranaree University of Technology. According to the sample size determination by Taro Yamane formula, the sample size in this study should be at least 385 observations. However, the researchers collect data from 400 observations.

### Research Instrument

Research instrument in this study is questionnaire. It is divided into 3 parts: part 1 general information of the observations, part 2 influential determinations to selecting the third party logistics company, and part 3 the other suggestion about the influential factors that might impact on third party logistics selection. The questionnaires are distributed based on the defined universities.

Table1: Numbers and percentages of respondents classified by demography (n = 451)

Personal factor	Number	Percentage
University		
Chiangmai University	14	3.1
Khon Kaen University	31	6.9

Personal factor	Number	Percentage
Mahidol University	17	3.8
Chulalongkorn University	13	2.9
Kasetsart University	96	21.3
Thammasart University	57	12.6
Silpakorn University	61	13.5
King Mongkut's Institute of Technology Ladkrabang	40	8.9
Burapha University	36	8.0
Prince Songkla University	7	1.6
Suranaree University of Technology	21	4.7
Other	58	12.9
Education level		
1 <sup>st</sup> year student	54	12.0
2 <sup>nd</sup> year student	133	29.5
3 <sup>rd</sup> year student	175	38.8
4 <sup>th</sup> year student	89	19.7
Frequency of use		
Less than 1 / week	310	68.7
2-3 per week	108	23.9
3-4 per week	20	4.4
5-6 per week	9	2.0
Everyday	4	.9
Company		
Thai post	218	48.3
Kerry Express	227	50.3
Other	6	1.3

#### 4. Results

**Research question 1:** What 3PL provider performance variable are impact to customer's satisfaction?

This question was answered by obtaining the regression coefficients and the p-value for these coefficients. In Table 1, the result of the regression analysis displays unstandardized coefficients, coefficients standard error, standardized coefficients and p-values for all the predictors. The significant variables as the predictors consist of Specialization ( $\beta = 0.250$ ,  $p < 0.000$ ); Focus on specific industry ( $\beta = 0.218$ ,  $p < 0.000$ ); Correctness ( $\beta = 0.156$ ,  $p = 0.001$ ); Recycle and reuse ( $\beta = 0.182$ ,  $p < 0.000$ ); Use of IT system ( $\beta = 0.129$ ,  $p = 0.003$ ) and Delivery frequency ( $\beta = 0.122$ ,  $p = 0.005$ ). They are all significant predictors of 3PL provider performance to make customer satisfied. The rank of determinants that impact on customer's satisfaction are Specialization, Focus on specific industry, Correctness, Recycle and reuse, Use of IT system, Delivery frequency, respectively.

Table 2: The result of effect between independent variables and customers' satisfaction

Variables	Unstandardized Coefficients	Coefficients Standard Error	Standardized Coefficients	p-value
Specialization	.253	.043	.250	.000
Focus on specific industry	.172	.031	.218	.000
Correctness	.152	.044	.156	.001

Variables	Unstandardized Coefficients	Coefficients Standard Error	Standardized Coefficients	p-value
Recycle and reuse	.150	.037	.182	.000
Use of IT system	.129	.043	.129	.003
Delivery frequency	.114	.040	.122	.005

**Research question 2:** How was the effect of the customer’s satisfaction towards the customer’s loyalty? In order to answer this question, we obtain the regression coefficients and the p-value of satisfaction in 3PL provider service from customer to show those variable can be taken as measures of the effect size. These results are displayed in the table 2. Satisfaction in the company performance and service is significant ( $\beta = 0.662$ ,  $p = < 0.000$ ). According to the result, the standardized coefficient is large which shows the importance of the customer’s satisfaction impacted to customer’s loyalty in the model.

Table 3. The result of effect between the customers’ satisfaction and customers' loyalty.

Variable	Unstandardized Coefficients	Coefficients Standard Error	Standardized Coefficients	p-value
Satisfaction in the company performance and service	.633	.034	.662	.000

The effect values are presented in Figure 1.

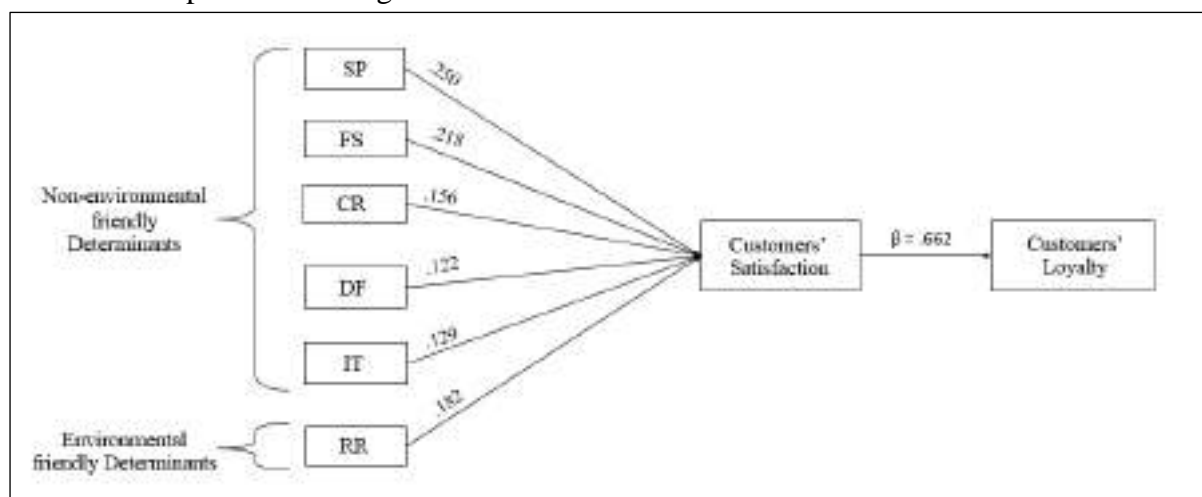


Figure 1. A structural equation model

## 5. Conclusion

There are many factors decided to evaluate in this study either non-environmental friendly logistics or environmental friendly logistics that may influent the customers’ satisfaction and customers’ loyalty. From the study found non-environmental friendly logistics determinants that affect to customer satisfaction consist of 5 variables which are specialization, focus on specific industry, correctness, use of IT system and delivery frequency. The most important determinants were specialization with highest standardized coefficient ( $\beta = 0.25$ ), specific industry ( $\beta = 0.218$ ), correctness ( $\beta = 0.156$ ), use of IT system ( $\beta = 0.129$ ) and delivery frequency ( $\beta = 0.122$ ), respectively.

For environmental friendly logistic variable, there is 1 variable that affects customer satisfaction which is recycle and reuse. When those determinants from environmental friendly logistic and non-environmental friendly logistic are combined together will make customer satisfaction and lead to customer loyalty.

## 6. References

- Aguezzoul, A. (2014). Third-party logistics selection problem: A literature review on criteria and methods. *Omega*, 49, 69-78.
- Ali, S. S., Kaur, R., & Dubey, R. (2014). Analysis of 3PL sustainable relationship framework. *International Journal of Services and Operations Management*, 17(4), 404-420.
- Albekov, A. U., Parkhomenko, T. V., & Polubotko, A. A. (2017). Green logistics in Russia: the phenomenon of progress, economic and environmental security. *European Research Studies Journal*, 20(1), 13-21.
- Bajec, P., & Tuljak-Suban, D. (2016). Identification of Environmental Criteria for Selecting a Logistics Service Provider: A Step Forward towards Green Supply Chain Management. In *Sustainable Supply Chain Management*. IntechOpen.
- Batarlienė, N., & Jarašūnienė, A. (2017). “3PL” Service Improvement opportunities in transport companies. *Procedia Engineering*, 187, 67-76.
- Blanco, E. E., & Sheffi, Y. (2017). Green logistics. In *Sustainable Supply Chains*. Springer, Cham. pp. 147-187
- Cai, S., De Souza, R., Goh, M., Li, W., Lu, Q., & Sundarakani, B. (2008, September). The adoption of green supply chain strategy: An institutional perspective. In *2008 4th IEEE International Conference on Management of Innovation and Technology* (pp.1044-1049). IEEE.
- Domingues, M. L., Reis, V., & Macário, R. (2015). A comprehensive framework for measuring performance in a third-party logistics provider. *Transportation Research Procedia*, 10, 662-672.
- Evangelista, P., Hüge-Brodin, M., Isaksson, K., & Sweeney, E. (2013). Purchasing green transport and logistics services: Implications from the environmental sustainability attitude of 3PLs. In *Outsourcing Management for Supply Chain Operations and Logistics Service* (pp. 449-465). IGI Global.
- Evangelista, P., Hüge-Brodin, M., Isaksson, K., & Sweeney, E. (2011). The impact of 3PL's green initiatives on the purchasing of transport and logistics services: an exploratory study.
- Evangelista, P., Santoro, L., & Thomas, A. (2018). Environmental sustainability in third-party logistics service providers: A systematic literature review from 2000–2016. *Sustainability*, 10(5), 1627.
- Geetha E., Abhishek R. (2014). A Study on Factors Influencing the Selection of 3PL Logistics Providers – Users Perspective. *Proceedings of the First Middle East Conference on Global Business, Economics, Finance and Banking*. 10-12
- Gupta, R., Sachdeva, A., & Bhardwaj, A. (2011). Criteria of selecting 3PL provider: A literature review.
- Gürçan, Ö. F., Yazıcı, İ., Beyca, Ö. F., Arslan, Ç. Y., & Eldemir, F. (2016). Third party logistics (3PL) provider selection with AHP application. *Procedia-Social and Behavioral Sciences*, 235, 226-234.
- Gurel, O., Acar, A. Z., Onden, I., & Gumus, I. (2015). Determinants of the green supplier selection. *Procedia-Social and Behavioral Sciences*, 181, 131-139.
- Gonzalez-Feliu, J. (2018). Sustainability evaluation of green urban logistics systems: literature overview and proposed framework. In *Green Initiatives for Business Sustainability and Value Creation* (pp. 103-134). IGI Global.
- Isaksson, K. (2012). *Logistics Service Providers going green: insights from the Swedish market* (Doctoral dissertation, Linköping University Electronic Press).
- Liao, H., Wu, D., Huang, Y., Ren, P., Xu, Z., & Verma, M. (2018). Green logistic provider selection with a hesitant fuzzy linguistic thermodynamic method integrating cumulative prospect theory and PROMETHEE. *Sustainability*, 10(4), 1291.
- Jayarathna, C. P. (2016). The Level of Green Supply Chain Practices Adoption in Sri Lanka Manufacturing Companies. *Int. J Sup. Chain. Mgt Vol*, 5(4), 12.

- Jonas, C. P. (2016). 3PL implementing corporate social responsibility in a closed-loop supply chain: A conceptual approach. *Int. J. Supply Chain Manag*, 15, 7-14.
- Karrapan, C., Sishange, M., Swanepoel, E., & Kilbourn, P. J. (2017). Benchmarking criteria for evaluating third-party logistics providers in South Africa. *Journal of Transport and Supply Chain Management*, 11(1), 1-10.
- Mavi, R. K., Goh, M., & Zarbakhshnia, N. (2017). Sustainable third-party reverse logistic provider selection with fuzzy SWARA and fuzzy MOORA in plastic industry. *The International Journal of Advanced Manufacturing Technology*, 91(5-8), 2401-2418.
- Perotti, S., Micheli, G. J., & Cagno, E. (2015). Motivations and barriers to the adoption of green supply chain practices among 3PLs. *International Journal of Logistics Systems and Management*, 20(2), 179-198.
- Van Binh, T., Nguyen, T. H. (2016). Factors Impacting on the Selection of Third Party Logistics Provider. *China-USA Business Review*, 12, 616-627.
- Zhang, Y. (2009). The usage of third party logistics in New Zealand: a thesis presented in partial fulfillment of the requirements for the degree of Master in Applied Science in Logistics and Supply Chain Management at Massey University, Albany, New Zealand (Doctoral dissertation, Massey University).
- Zaman, K., & Shamsuddin, S. (2017). Green logistics and national scale economic indicators: Evidence from a panel of selected European countries. *Journal of cleaner production*, 143, 51-63.

## **Observational Drawing Development in Anatomy for Animation Classes**

**Dimitrije Curcic**

Prince of Songkla University International College  
Hat Yai, Thailand

Email: [dimitrije.c@psu.ac.th](mailto:dimitrije.c@psu.ac.th)

### **Abstract**

This article is part of Anatomy for Animation teaching strategy whose classes are conducted in Prince of Songkla University International College. The aim of this research is to advance the process of 2D figure drawing in order to produce an integrated design framework on which to build an adaptable 2D character design for further animation processing. The task of constructing a humanoid character design for animation is challenging. First, a sense of realism through appearance must be established, and then simplify this realism through maintaining basic forms and details that are crucial for the uniqueness and functions of the model. Techniques and strategy that aids in achieving such a task in drawing process are presented in this paper.

**Keywords:** human anatomy, gesture drawing, character design

### **1. Introduction**

Despite the increase in computing power and documentation of a large number of different techniques of the character creation, most artists use structures that are too simple to be deemed anatomically appropriate. Oversimplification using flexible surfaces at joints causes undesirable results because many deformations (like bulging muscles) occur far away from joints. Also producing joint changes without considering reasons for those shape changes is not acceptable if we are aiming to produce believable body mechanics [1][2][3][4].

In this paper is presented an approach by analyzing the relationship between exterior forms and the underlying skeletal structure responsible for creating changes in those forms that we can identify and translate into dynamic drawings. At the same time, guidelines spontaneously created by searching the final forms can be motivators in creating additional organic shapes as an added value in creature design. This approach is applicable for intermediate skill level as well as for students without drawing experience although it is nearly impossible to determine one, universal, approach in anatomy drawing considering different sensibility and progress speed of each individual.

### **2. Research Objectives**

While rendering and shading are an important part of the drawing and modeling process, most of this research focusing on building forms upon the underlying skeleton structure using lines and simplified anatomy designs in order to set a strong foundation for further processing and finalizing artworks.

## **Skeletal muscles**

Skeletal muscle, voluntary muscle, ordinary striated (as opposed to cardiac) muscle: these terms are not exactly synonymous, but collectively convey many of the familiar functional aspects of the muscles considered here. Together, they make up about 40% of the body's mass, and as with all muscles they are specialized for the generation of force. They range in size from the minute stapedius of the middle ear to the great quadriceps femoris of the anterior thigh. Trunk and limb muscles are perhaps the most familiar, but they also include such muscles as those of facial expression and the intrinsic muscles of the tongue. The forces that they generate are typically used to bring about the relative movements of their attachments, whether broad or narrow, such as in the opening and closing of joints between elements of the skeleton, or alterations in facial expression as in movements of the modiolus at the corner of the mouth with respect to the skull and mandible. The term 'skeletal' is therefore justified in a such as most of these muscles are more or less directly attached to skeletal elements, at least at one of their attachments (R. Banks, 2014, p. 1).

## **Joint and musculoskeletal system functions**

For every muscle pulling in one direction, there must be the corresponding muscle pulling in the opposite direction. Muscles are therefore paired, throughout the body (George Bridgman, 1920, p. 11)

The musculoskeletal system provides support to the body and gives humans (and many animal species) the ability to move. The body's bones (the skeletal system), muscles (muscular system), cartilage, tendons, ligaments, joints, and other connective tissue that supports and binds tissues and organs together comprise the musculoskeletal system. The system provides form, support, stability, and movement to the body. For example, the bones of the skeletal system protect the body's internal organs and support the weight of the body. The muscles of the muscular system keep bones in place; they also play a role in movement of the bones by contracting and pulling on the bones, allowing for movements as diverse as standing, walking, running, and grasping items. To allow motion, different bones are connected by joints. Within these joints, bones are connected to other bones and muscle fibers via connective tissue such as tendons and ligaments. Cartilage prevents the bone ends from rubbing directly on each other. Muscles contract (bunch up) to move the bone attached at the joint [9].

## **3. Research Methodology**

When it comes to illustrations for stories or book covers, concept art for games or storyboarding, it's crucial the foundation of representational art and that includes understanding of human figure, both in a static pose and in action. There are two distinctive approaches in drawing studies; observational and formulaic. In this research we are focusing on the second one.

### **3.1 Observation in gesture drawing**

This approach applies sight-size methodology, which trains the eye to view a subject with accuracy, placing the object and the drawing side by side for comparative analysis (Ron Lemen, 2010 p. 17).



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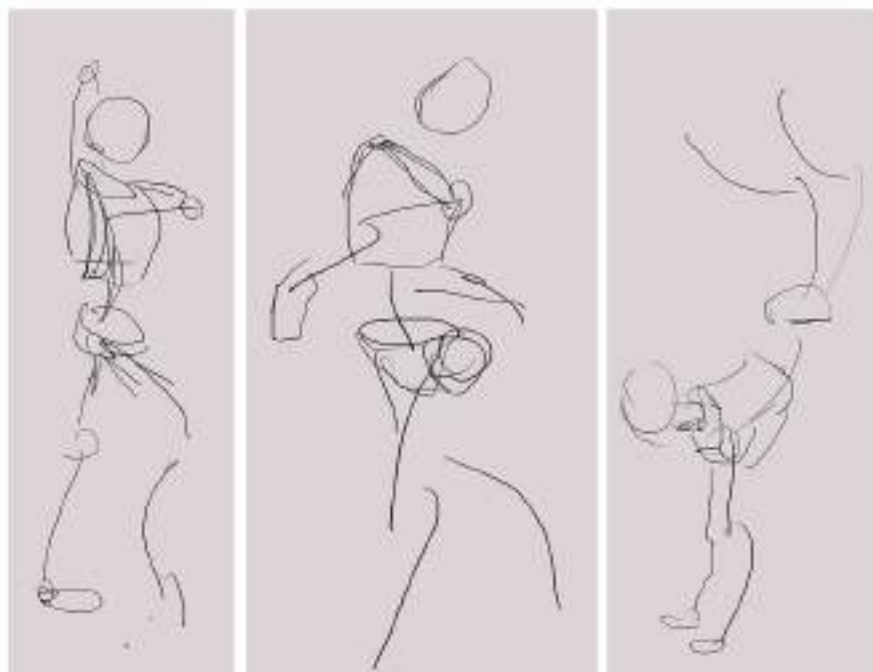
### **3.1 Observation in gesture drawing**

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Since students are using digital tools for drawing, brush settings in Adobe Photoshop CC and pen pressure in Wacom tablet are crucial for traditional drawing (pencil on paper) simulation. Opacity and flow values can vary depending on drawing manner, but generally, there always must be allowance in pen pressure in order to control line quality (Figure 2). In the first set of exercises, we applied this method in “2 minutes drawings” where students see photographs of random people in variety of static and action poses that are changing every 2 minutes on projector screen. In two minutes time each student has produced one gesture drawing of one pose, capturing eight parts of the body, spine direction and rough movements of the masses (Figure 2). In total, there were 22 different image references accomplished in 45 minutes.



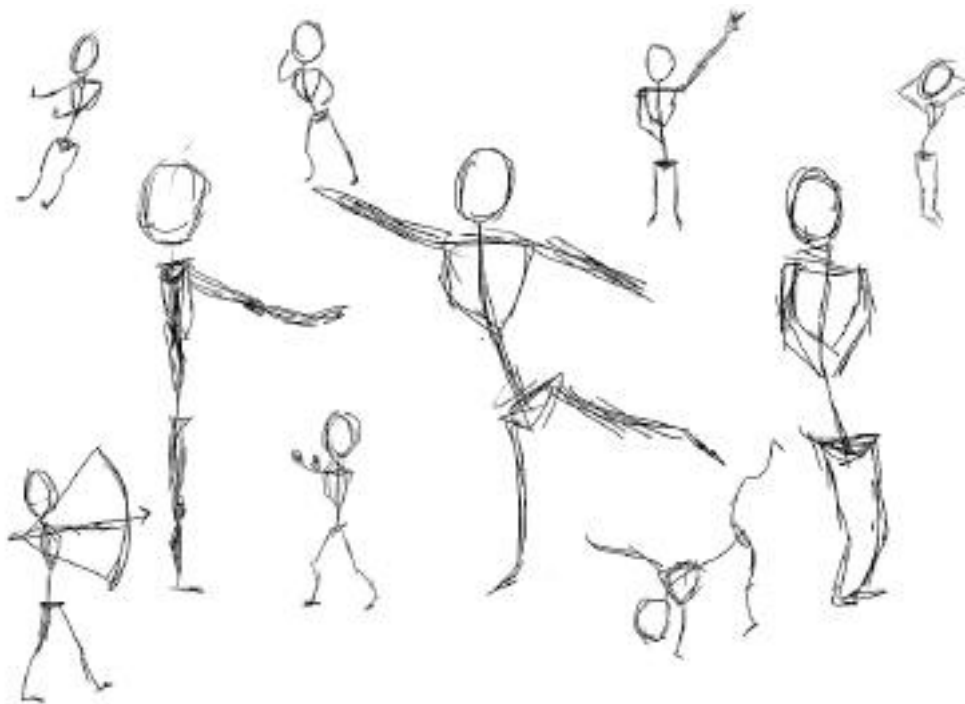
*Fig. 1: Brush setting in Adobe Photoshop CC and pen pressure settings for Wacom pen tablet.*



*Fig. 2: Examples of two minutes drawings.*

### 3.2 The line quality

At this stage of gesture drawing we are still focusing on the balance, weight and activity - proportions can be corrected later. However, the main problem in this process is slow and line stroke that is usually in form of shaky or jagged contour lines often with the same intensity and thickness. That manner of line strokes, by default, fattens form giving no sense for 3D space and it is very common beginner's mistake (Figure 3).

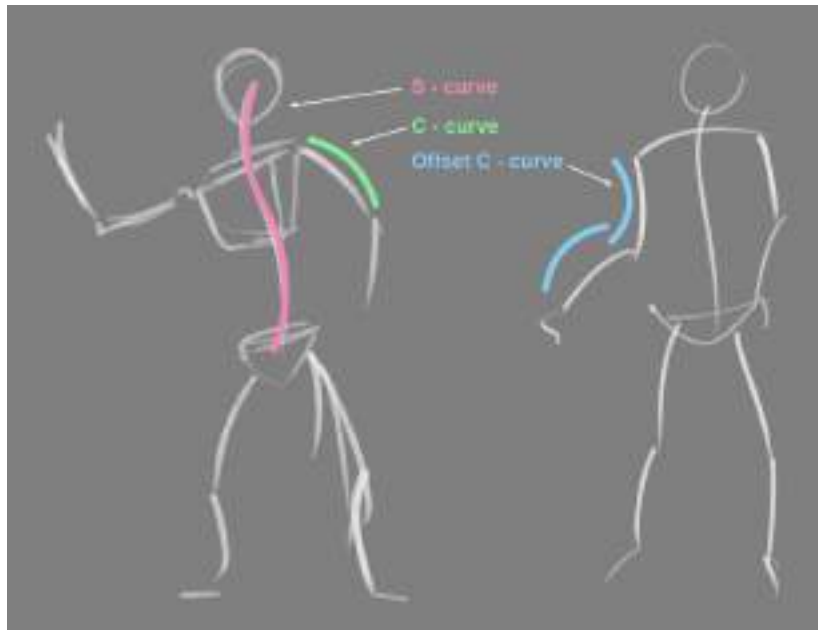


*Fig. 3: Examples of non-articulated line, common for students without previous drawing experience.*

Also, the reason for stiffening the pose is often slow and methodical measuring, which contributes significantly to unstable appearance of figure. Three essential things, therefore, must be adopted to overcome those technical issues at this stage:

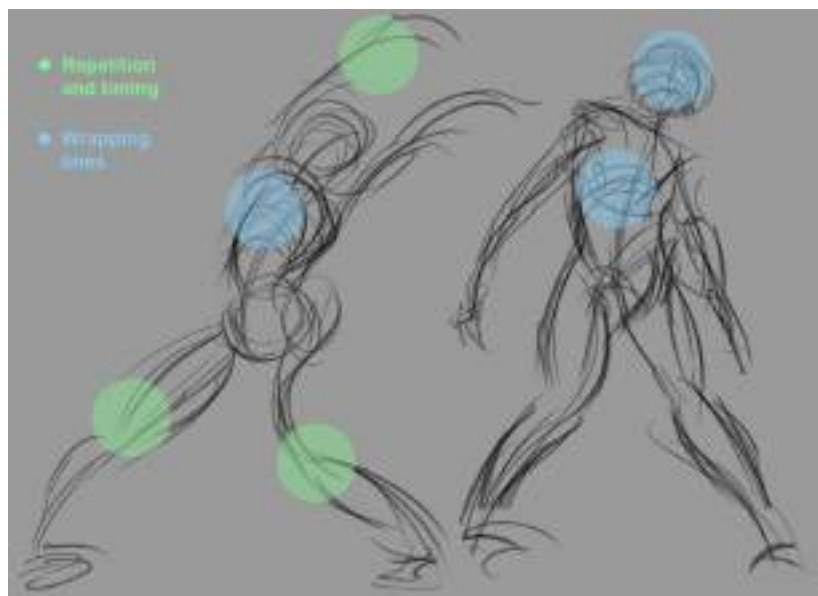
1. Using “C” and “S” curves
2. Combining “C” curves with asymmetry and repetition
3. Avoiding contour line

The asymmetrical use of line keeps the high points of the curves slightly offset and the eye is forced to move through them (Michael Hampton, 2010, p. 6). Inclination towards symmetry is the most common mistake especially visible in building 3D characters. Understanding that no body or face has 100% equal appearance is crucial for early stage of figure drawing especially when it comes to character design and action poses (figure 4).



*Fig. 4: S-curves And asymmetrical use of C-curves.*

Repetition is additional quality of curve that provokes a visual movement every time a similar curve or shape is repeated twice or more (Michael Hampton, 2010, p. 7). By using repetition curves when drawing intersection areas such as knees, elbows, hips and shoulders, we slow down the eye forcing the viewer to keep attention to that area. In combination with single or asymmetrical curves we speed up the eye (timing) creating on that way gesture with fluid composition and timing (figure 5).



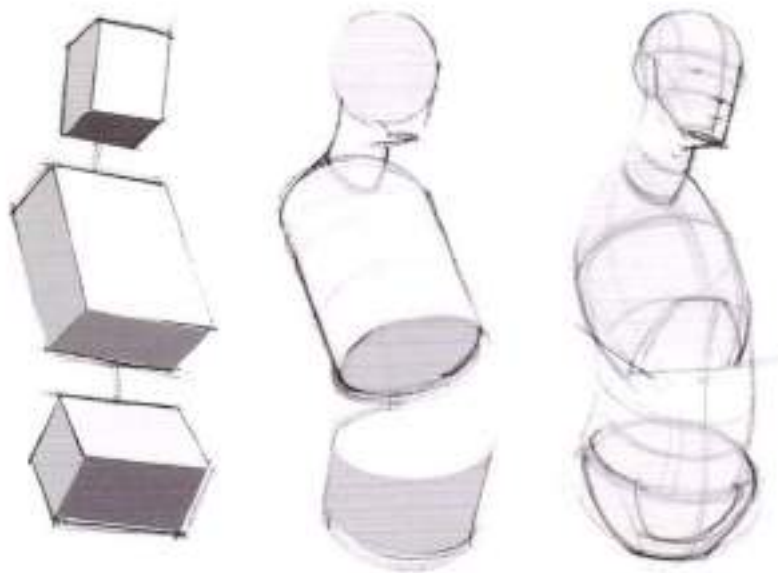
*Fig. 5: Actively applying S-curves, asymmetrical C-curves, repetition, timing and wrapping lines to suggest 3D form.*

### 3.2 The eight parts of the body and balancing act

When developing a gesture drawing, we are describing the eight parts of the body. These eight parts include:

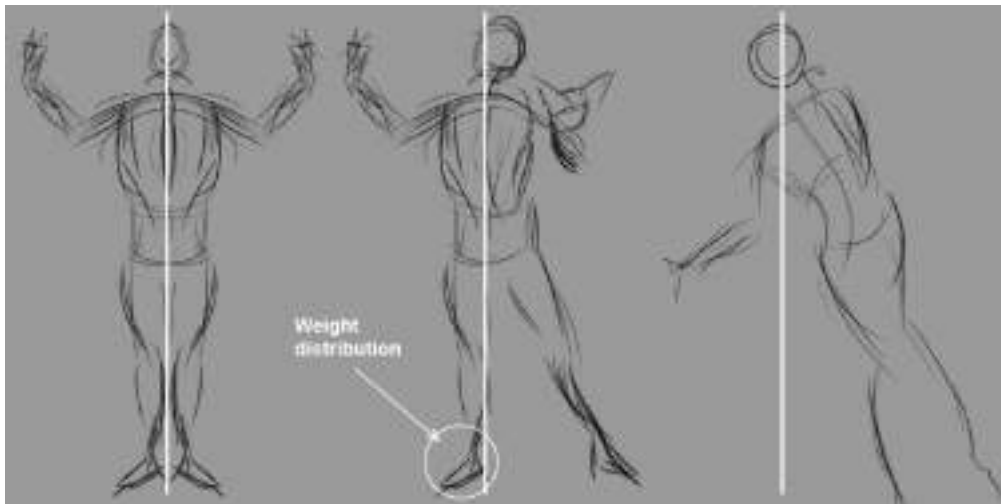
- Head
- Spine
- Arms (2)
- Pelvis
- Rib Cage
- Legs (2)

When creating a gesture drawing, this involves developing figure's proportions and sense of balance and weight (Michael Hampton, 2010, p. 4). Even if proportions are not accurate at early stage, the balancing act between head, rib cage and pelvis is the biggest consideration. The movement of masses is determined with those three parts that always have fixed volume and shape regardless of their position or view angle (figure 6).



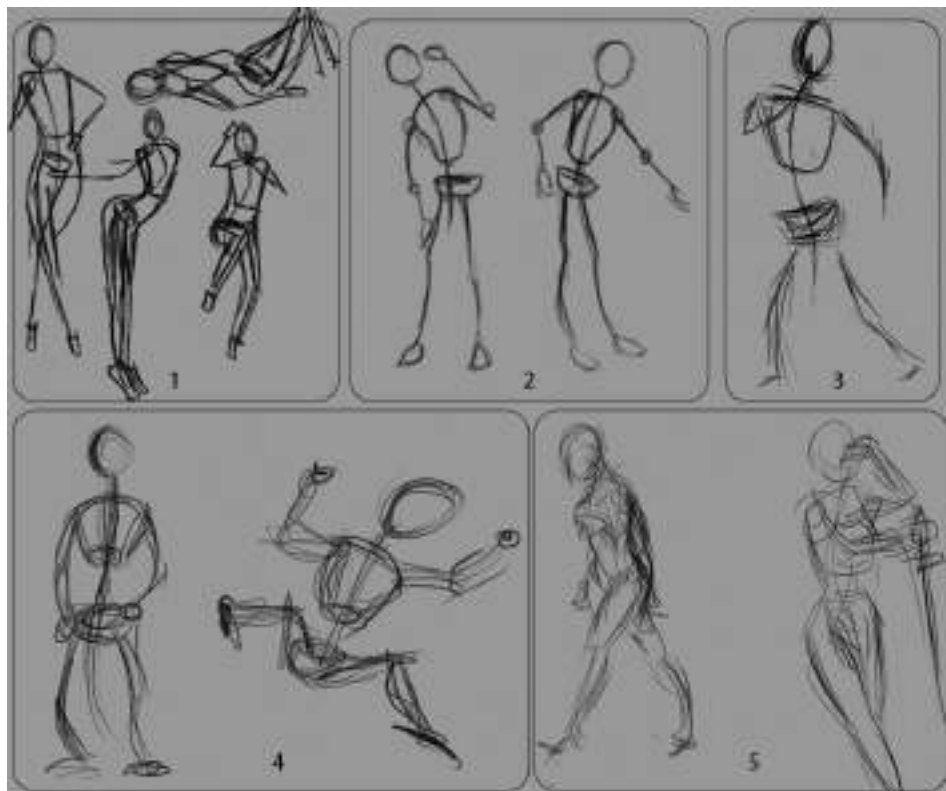
*Fig. 6: Head, rib cage and pelvis - hard parts of the body observed as fixed blocks.*

Spine represents the main parameter for the center of gravity around which we manipulate figure's pose in order to create realistic movement. Center of gravity shows us how figure is balanced which brings us to the main obstacle of balance. Perfect balance would 100% match center of gravity that leads us to unnatural and stiff pose where we cannot see similarity with the real life poses and cannot identify weight distribution. This kind of pose is a good reference for 3D modeling, but our aim is to create a sense of story through visual movement. If we are creating action pose we certainly won't aim for the perfect balance, but rather for dynamic pose in exaggerated manner that will give impression of tension and slight misbalance. (Figure 7).



*Fig. 7: Perfect balance (first on the left), slight misbalance (middle) and misbalance (first on the right) in relation to center of gravity (presented with the vertical white line).*

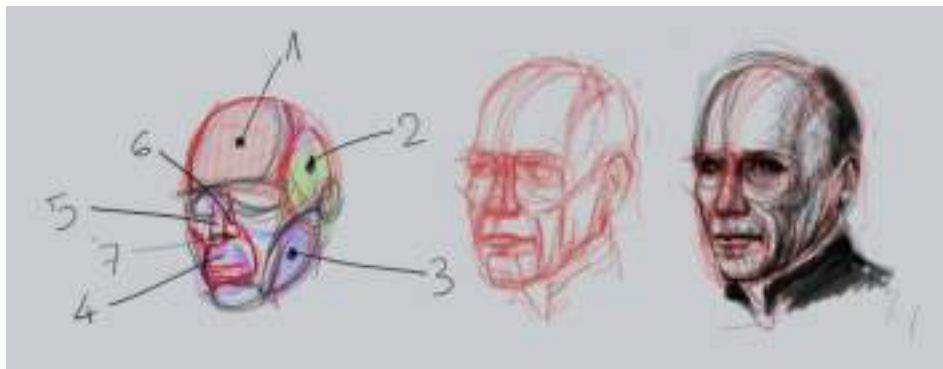
Regarding line quality and balance, gesture drawing assignment was repeated with time restriction of 6 minutes per pose with special attention to line quality and balance (figure 8).



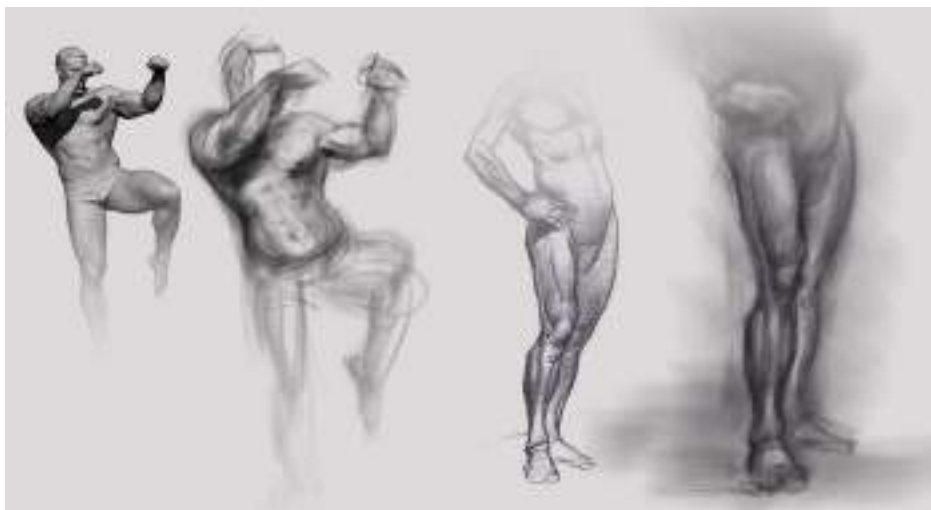
*Fig. 8: Samples of gesture drawings from first year students.*

### 3.4 Musculature and fat layer

After volume and perspective added, objective was to locate certain muscle groups and set the landmarks indicated in color (Figure 11). Some forms were still built with basic geometric forms that need to be refined with muscle groups. Study drawings targeting specific group of muscles is the next chapter in second midterm which focuses on developing body mechanics and refinements in describing forms. Observational drawing this time will be done with side by side references for quick comparison, with more variety of brush stroke thickness because of faster blocking the shapes, masses and rough shades (figure 12). Series of assignments targeting specific group of muscle groups will be dedicated to the major muscle groups including head, sternocleidomastoid, pectoralis major, trapezius, deltoid, rectus abdominis, obliques, serratus anterior, erector spinae, latissimus dorsi, arm, shoulder, forearm and hand, leg and foot.



*Fig. 11: Teaching demonstration of placing landmarks and identifying head parts.*



*Fig. 12: Teaching demonstration of side by side reference image and using wide brush strokes.*

In figure 12, two images on the left are focusing on Latissimus dorsi group of muscles and two images on the right are sample from leg group of muscles.

## 5. Results

Focused practice and self practice was the main emphasis in Anatomy for animation classes and majority of students showed instant progress in class through repeated gesture drawings that is evident in example below (figure 12).



*Fig. 13: Progress from drawing number 1 (on the left) and drawing number 20 (on the right) in Two Minutes Drawing exercise.*

Also, time limitation gave significant results in improving psychomotor skills within extremely small range of time. Those skills refer mainly to quality of line, brush stroke, use of asymmetry and curved lines, but also applies to accuracy in quick capturing of body masses. Notice drawing on the left from the figure 13 how line strokes are interrupted and chaotic while on drawing from the right side, line is articulated, sharp and placed on the way to clearly show the movement of the body using “C” curves. Comparing the first and the last drawing in one set, majority of the students showed improvements in line and form articulation. Those small improvements might not be obvious with each participant, but they provide instant feedback about the skill level and also can be a motivator for student’s self-practice. Sample drawing in figure 13, is example of final outcome in gesture drawing that has been evaluated based on rubric assessment criteria created for this class (figure 14). Each category addresses a particular body part, group of muscles or visual element that should be recognizable in drawing and it carries a certain amount of points. For example, in head drawing, category named keystone and nose (assignment 4) carries 2 points maximum in case that area is visible and indicated with the landmark (usually in color). If that area is not indicated, one point would be deducted from the maximum score.



ANI-145 Anatomy for Animation <b>Assignment 1</b> (As 3D Gesture drawing 1) Year 1, Academic Year 2018, Semester 2, Midterm 2		Drawing competencies and scores for ANI	a	b	c	d	e	Total			
Score	a - Anatomy knowledge basics		b - Eight parts of the body	c - Balancing act of human form	d - Symmetry and estimeretry	e - Repetition and timing	7%	7%	7%	7%	7%
Category description	Proportions, joints, head position, gaze directions. Student is able to identify rough proportion and position of human body elements.	Eight parts of the body are visible and clear as most of the sketch samples: head, spine, rib cage, pelvis, arms (2) and feet (2)	Head, rib-cage and pelvis are large areas of base (and parts) and need to be balanced between softer areas of flesh and muscles so it follows human anatomy that naturally balances the figure.	Asymptotical use of line emphasizes a natural sense of balance and movement which are the main qualities in describing a figure.	Repetitive use of lines to show down the eye focus and connecting it with asymmetrical curves that pointing eyes focus downwards, below.						
ANI-145 Anatomy for Animation <b>Assignment 2</b> (As 3D Gesture drawing 2) Year 1, Academic Year 2018, Semester 2, Midterm 1		Drawing competencies and scores for ANI	a	b	c	d	e	Total			
Score	a - Volume of human parts (head, rib cage and pelvis)		b - Volume of arms	c - Volume of legs	d - Weight distribution	e - Connections	1%	7%	1%	1%	1%
Category description	Landmarks (lines of symmetry) are visible at the four parts as the figure starts to move through space. Use of symmetry helps to show a form. A side plane has been added to reinforce the idea of the figure is working in space.	Drawings demonstrate ability to turn cylinders/partial shapes of upper and lower arm into space by changing the size of the ellipse in order to create illusion of 3D forms and a drawing perspective.	Drawings demonstrate ability to turn cylinders/partial shapes of upper and lower leg into space by changing the size of the ellipse in order to create illusion of 3D forms and a drawing perspective.	Drawings show the figure's fold off of the weight on one side that affected pelvis and ribcage positions and shoulder direction in order to balance the figure.	Head, rib cage and pelvis are connected with either "C" curve or "S" curves which helps to balance the figure together and work with the gesture drawing. Use of these curves, penetrate and simple understanding in describing the movement of the three parts against one another.						
ANI-145 Anatomy for Animation <b>Assignment 3</b> (As 3D Head drawing 1) Year 1, Academic Year 2018, Semester 2, Midterm 1		Drawing competencies and scores for ANI	a	b	c	d	e	Total			
Score	a - Spheres, tilt and jaw setup		b - Use of "T", vertical dividers and perspective	c - Proportions	d - Side plane	e - The ear and the cheekbone	2%	2%	2%	2%	2%
Category description	The sphere represents the cranial mass, which is 2/3 of the entire skull. The jaw has a tilt with a straight line down through the center of the sphere, the cranial mass is given a 2-3 orientation. The shape of the jaw is formed by extending the lines of the cranial mass down to give the skull an overall egg shape.	The "T" is the line of symmetry in the face. Vertical line divides face in two equal parts. The "T" at the face further helps with perspective. Perspective is added to create the illusion of three dimensional and determines whether viewer is under, near or above the head.	The base of the nose is half-way between the brow and the bottom of the jaw. The bottom of the eye sockets, which is half-way between the base of the nose and brow. Halfway between the bottom of the sockets and the bottom of the eyebrows. The position of the line and the top of the chin are clear.	Finding the baseline and drawing it in perspective all the way around to the back of the skull. Beginning from the base of the nose section line is created across the face to the back of the skull. Lines, the side plane of the skull is drawn between back of the skull, the top of the forehead, the outside of the brow, and the base of the nose.	The orbits in the lower quadrant, created by drawing the horizontal and vertical dividers. The ear is kept as a simple "C" shape that is not taller than the base of the nose to the line of the brow. The line of the cheekbone breaks at the top of the ear and continues as a "C" curve down to the corner of the jaw.						
ANI-145 Anatomy for Animation <b>Assignment 4</b> (As 4 Head drawing 2) Year 1, Academic Year 2018, Semester 2, Midterm 1		Drawing competencies and scores for ANI	a	b	c	d	e	Total			
Score	a - The tegulae and nose		b - Eye construction	c - Denture sphere	d - The profile	e - The back of the head	2%	2%	2%	2%	2%
Category description	The tegulae plane for the eye socket (eye) are visible, the plane for the sockets pushes into the skull at an angle. The bottom and side planes of the nose are visible as well as floor plane for the bridge of the nose.	The sphere of the eye and where it sits within the socket is described. The lids feel as if they travel across and around the underlying form of the eye. Design of eyelids is asymmetrical. The upper lids have a higher curve towards the nose, and the lower lids drop and curve further from the nose.	Developing the area of the tooth cylinder as denture sphere - this area juts out and away from the face. The denture sphere is an oval. This oval is drawn from the top of the chin up a sideways the area of the nose.	The shape, tilt and perspective are established in profile view.	The orbits, the form of the neck, the cheekbones, the cranial mass and the ear - drawing of the back of the head is completed into an organization of three main forms.						

Fig. 14: Rubric assessment criteria for assignments in the first midterm.

## 6. Discussion and Conclusion

Anatomy for animation classes provided basic understanding of human body mechanics as well as quick guideline of developing drawing techniques that will give a solid foundation of character design for other subjects related to animation and concept art. Considering the final outcome in Anatomy for Animation class, there are two general approaches in solving problems among the students; inclination towards aesthetics and analytical approach.

## 6.1 Inclination towards aesthetics

Tendency to achieve sense of naturalism by digitally painted gradients representing, on that way, 3D forms of muscle groups. This approach requires digital painting and rendering skills, observation and fundamental knowledge of lighting and shading, but also, it can be misused to blur mistakes or dedicate too much time on aesthetics (rendering hair, reflection in eyes and similar unimportant details) rather than understanding body structure and muscle functions (figure 15).

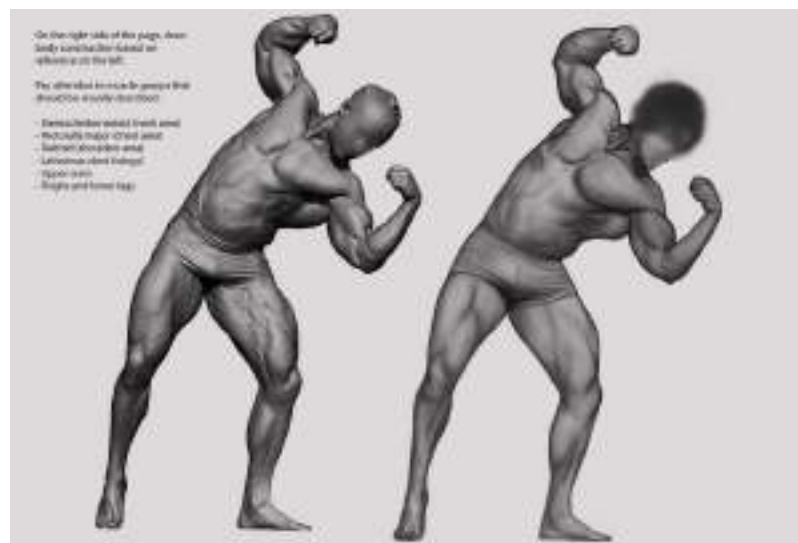


Fig. 15: Inclination towards aesthetics in example of student's body drawing.

## 6.2 Analytical approach

Targeting particular muscle groups and understanding connections between outside surfaces and underlying structure is the main emphasis of this approach. Here, we are developing a sense of perspective and three dimensional objects in space by simplifying complex organic forms (muscles) into basic geometrical shapes (cubes and cylinders) in order to understand body mechanics and connections between major muscle groups. At the same time, we improve the use of line (economy of line) articulating our line strokes in order to create impression of three dimensional forms (figure 16).



Fig. 16: Analytical approach in example of student's body drawing.

Drawing for animation is a complex process that requires a great amount of self-practice and years of dedication, which is hard to track without constant feedback. Exercises with time restriction are one of the ways to conduct a class more efficiently and improve anatomy studies for several reasons:

- It keeps constant focus only on essential parts and doesn't provide enough time for loading the drawing with unnecessary details
- It provides quality through quantity as improvements in capturing body masses between the first and the last drawing are evident
- It sharpens psychomotor and cognitive skills by developing feeling of 3D forms without slow and methodical measuring that often discourage students from more attempts
- It provides instant feedback about student's skill level and progress

## 8. References

- [1] Chadwick, J. E., Haumann, D. R., and Parent, R. E. (July 1989) Layered construction for deformable animated characters. *Computer Graphics (SIGGRAPH 89 Conference Proceedings)*, 23, 3, 243–252.
- [2] Scheepers, C. F. *Anatomy-based Surface Generation for Articulated Models of Human Figures*. PhD thesis, The Ohio State University, 1996. Adviser: Richard E. Parent.
- [3] Singh, K. *Realistic Human Figure Synthesis and Animation for VR Applications*. PhD thesis, The Ohio State University, 1995. Adviser: Richard E. Parent.
- [4] Wilhelms, J. Modeling animals with bones, muscles, and skin. Tech. Rep. UCSC-CRL-95-01, University of California, Santa Cruz, Jan. 1995.
- [5] D. Tost and X. Pueyo, Departament de Mètodes Informàtics (ETSEIB), Universitat Politècnica de Catalunya, Avenue Diagonal 647, E-08028 Barcelona, Spain.
- [6] Goldfinger, E. *Human Anatomy for Artists: The Elements of Form*. Oxford University Press, New York, 1991.
- [7] Richer, P. *Artistic Anatomy*. Watson-Guption Publications, New York, 1981. Translated by Robert Beverly Hale.
- [8] Wolff, E. *Anatomy for Artists*, 4th ed. H. K. Lewis & Co., London, 1968. Illustrated by George Charlton.
- [9] Boundless.com (2019), *Functions of the Musculoskeletal System*. Retrieved from <http://oer2go.org/mods/en-boundless/www.boundless.com/biology/textbooks/boundless-biology-textbook/the-musculoskeletal-system-38/types-of-skeletal-systems-215/functions-of-the-musculoskeletal-system-811-12050/index.html> (April, 13<sup>th</sup>, 2019).
- [10] Ron Lemen. (2010). Figuring it out: two ways to draw. *ImagineFX*, Vol 1, 16-17.

[11] Ferdi Scheepers, Richard E. Parent, Wayne E. Carlson, Stephen F. May (1997), *Anatomy-based modeling of the human musculature*. Retrieved from <http://www.cs.virginia.edu/~dbrogan/CS551.851.animation.sp.2000/Papers/scheepers.pdf> (March 11<sup>th</sup> 2019).

[12] Tim McLaughlin, Stuart S. Sumida Ph.D. (2007). *The Morphology of Digital Creatures*. Retrieved from <https://projet.liris.cnrs.fr/m2disco/pub/Congres/2007-SIGGRAPH/DVD1/content/courses/c26/c26.pdf> (March 15<sup>th</sup> 2019).

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**Conceptualizing Authenticity through the Spatial Analysis of Culture, History, Mobility, and Commodification  
of Thalang Road,  
Old Phuket Town**

**Jakraphan Chaopreecha<sup>1</sup>, Nicha Tovankasame<sup>2</sup>, Emeela Wae-Esor<sup>3</sup>, Pim de Jong<sup>4</sup>**

College of Computing<sup>1</sup>  
Prince of Songkla University  
Phuket 83120, Thailand  
Email: [jakraphan.c@phuket.psu.ac.th](mailto:jakraphan.c@phuket.psu.ac.th)  
Faculty of International Studies<sup>2</sup>  
Prince of Songkla University  
Phuket 83120, Thailand  
Email: [nicha.t@phuket.psu.ac.th](mailto:nicha.t@phuket.psu.ac.th)  
Email: [emeela.w@phuket.psu.ac.th](mailto:emeela.w@phuket.psu.ac.th)<sup>3</sup>  
Email: [pim.dj@phuket.psu.ac.th](mailto:pim.dj@phuket.psu.ac.th)<sup>4</sup>

**Abstract**

This paper aims to analyze how the authenticity of space is formed in the locality. The authenticity is a ramification of interaction among people rather than the continuity of traditional culture. Hence, space, history, and culture are indistinguishable in a process of authentication. In order to study such concept, the participant observations and in-depth interviews are utilized to gather ethnographic data. *Thalang* road, located in oldtown area of Phuket, is chosen to be a main case because the interaction between tourists and community's members has occurred every day. Phuket is a province where social mobilities of people are high, and various culture are integrated. The dynamic domains of histories and cultures have been overlaid resulted in a production of contemporary culture and authenticity. The data reveals that mode of interaction among participants becomes main mechanism in the spatializing process.

**Keywords:** Spatializing Culture; Authenticity; Cultural Tourism; Mode of Interaction; Old Phuket Town

**1. Introduction**

The term authenticity in tourism generally relates to traditional culture and practices of local people which has been continually inherited. However, this concept can no longer describe an emergence of particular urban space where a practice of people is globally intermingled. Such urban space still has an aura which potentially induces a mass of tourists to visit. This phenomenon possibly provides an alternative meaning of authenticity which can support an analysis of various contemporary urban areas.

There has been a discussion which scrutinize a purpose of tourists who desire to experience a journey during their vacation time. An authentic culture of destination area is central to such discussion. Regarding dichotomous arguments, one claims that a tour activity is a pseudo-event (Uriely, 1997, p.982, as cite in Barthes, 1972; Boorstin, 1964) in which authenticity of local culture is not important while another one asserts that the authentic experience is a core reason motivating tourist to accept a trip (MacCannell, 1973, p. 602). Phuket local government agree with the latter since the province has a long history of Chinese migration and a settlement of local people.

Phuket Old Town – located at the center of Phuket island – has been developed into a central area of cultural tourism in accordance with its potential with the historical building owned by Chinese families. By a purpose to revitalize this historical area to be a nostalgic place, local government supports Thalang community

members to preserve their traditions and to undergo a process of commercialization. Therefore, a traditional culture has been promoted through a conduct of cultural events, such as baba wedding, traditional costume fashion show, and exhibitions of historical photography.

However, a transformation of space and a change of culture has never ceased. Chinese shophouses with a particular term of architecture, *Chino-Portuguese*, are renovated as café, modern cloth shops, souvenir shops, spas, bars, restaurants, grocery stores, and hostels. Graffiti are painted on empty walls and functions as backgrounds of photography. Gentrification also occurs when outsiders opt to invest in tourist related business and local people move to other areas of Phuket in order to escape congestion.

To analyze this contemporary phenomenon, the anthropological information had been gathered through the participant observations and the ethnographic methodology. The next sections will be theoretical framework and ethnographic data respectively. The result of study will be discussed at the end of this paper aiming at scrutinizing the meaning of authenticity in contemporary society which reveal a prospective of urban development in tourism district.

## 2. Research Objectives

This paper aims to analyze a meaning of authenticity within a domain of contemporary tourism industry.

## 3. Literature Review

### 3.1 Tourism and Authenticity

There has been a discussion about the authenticity of touristic place. On one hand, a tour could be “pseudo-event” (Boorstin, 1964) – creating fictitious and spectacular experience– which take a tourist from their day-to-day life in hometown. On another hand, many tourists strive to understand authentic practices of people in a society they visit (MacCannell, 1973, p. 602). The spectrum ranged from the former to the latter could be called a “mode of tourist” (Cohen, 1979, p.193) which is a result of tourists’ need – variegated by their education, social class, personal needs, and economic resources. This gives rise to various localities to be touristic places where different activities, lifestyles, experiences are signified. Some tourists may want to experience their familiar cultures while some are open to new exotic experiences. They are dichotomous views of tourists which produce global phenomena, McDonaldization and Disneyization (Urry, 2011 [1990], p. 54). The former signifies homogeneity of touristic places around the word influenced by mass productions and franchise company. Tourists can purchase foods, services, and products similar to those in their home countries although they travel to distant areas. The latter becomes apparent since an idea of romanticism have circulated among tourists who want to refuse mass tourism and want an outstanding experience.

The meaning of authenticity becomes ambiguous since it relates to personal experiences which give a value to places. The authenticity means neither places nor practices of participants in a tourism domain, but rather a distance between tourists and spaces. Such distance conveys the subjective meanings, such as nostalgic memory, exotic experience, and colonialist ideas. The spaces are open to new interpretation when touristic activities occur. In such distance, there are perceptions towards culture and history of host and guest which will be intertwined and transformed into an authenticity of touristic places.

### 3.2 Place, Spatializing Culture, and Commodification

A city consists of spaces which are geographically demarcated by physical body such as roads, buildings, mountains, rivers, bridges, and so on. Nevertheless, such city could be simultaneously analyzed as an integration of abstract domains distinguished by subjective perception, activities, history, culture, socio-economic and social structure of inhabitants. By studying such concept, a dynamic process of development and a complexity of city’s components have been revealed.

A space – where buildings are constructed and people reside in – is not totally managed by a top-down process carried out by a government, but it is also occupied, modified, transformed, interpreted, and utilized through a bottom-up process. In practice, inhabitants transform their community into a space that they actually live and conduct day-to-day activities. Thus, the community is not just an administrative location, but it become a lived space (Lefebvre, 1991) where each of individuals create their ways of living on a physical space and even extend the form of space to something meaningful to them. To extend the concept of lived space, inhabitants always create their own place-identity (Proshansky et al., 1983, p. 58), as notice from how they frame memories and attachment on the place they reside through ideas, emotions, attitudes, values, and notions. Thus, the lived space is not just a physical dimension, but contains the human spirituality inside it. The relationship among community members play the significant roles on constructing the social meaning of space and creating the sense of belonging. Low (2017, p. 70) explains the similar situation through the notion of “spatializing culture” as to study the ways people form lifestyle and sociality on the space for example, the interactions between members and economic exchange.

To study tourism space, the symbolic meanings of spaces become a resource for an exchange in the monetary system. The space and place are transformed into commodity. In general, a commoditization is a process in which things are priced in monetary system. The things then are transformed into commodities which could be widely sold in the market. Appadurai elucidated that commoditization is rather a temporal condition occurred when the things enter a state of commodity – being valued and exchanged (Appadurai, 1986, p. 13). In this state, the biography of thing is modified, and its value is increased as a result (Kopytoff, 1986, p. 70). In drastic case, some commodities, especially art and antique, possibly enters a singularity state – being only one object in the system – whose monetary value may not be limited. Differently, some objects become myth in which historical means tend to be weak (Barthes, 1972, p.142). Such object still has monetary value, but its value is from the connotative meaning rather than its biography. This could be seen in a case of modern commodity which signifies buyers a social class, lifestyle, education, and social network.

The value of space can be perceived through visual communication. In public space, architectures become public arts in which tourists are able to personally enjoy the aesthetic although there is no provided information (Frost et al., 2015, p. 70). The experience when observing the conspicuous space is significant for visitors. Personal experiences – romantic, beautiful, exotic, energetic, and so on – have been constructed through a participation in tours and observation of such spaces (Urry, 1992, pp. 183-184). The place has its own distinct characteristics or “genius locus” which could be perceived through experiencing the local culture (Long, 2017, p.338). Thus, a diversity of subculture, contestation between local and global phenomenon, bottom-up management become main topic in tourism industry (Richards, 2007). A misunderstanding in these concepts may lead to the deterioration of cultural capital (Richards, 2018, pp. 15-16). In order to analyze the concepts of space and commodification, the ethnographic data written in the next section will be discussed.

#### **4. Research Methodology**

The participant observations and in-depth interviews have been periodically conducted from 2016 to 2019 in order to gather ethnographic data. In order to discuss three main concepts – history and culture, mobility of participants, and commodification, researchers opted to communicate with tourists and local people while they were participating in the public space of Thalang Road. It was a temporal space-time where the influences of such three concepts could be discerned.

#### **5. Results**

##### **5.1 Thalang Road: Phuket Tourism Industry and a Transformation of the Old Town Area**

This paper selected *Thalang* road to be a main case by two reasons: 1) a place of mobility to people. People who was born in this place have tendency to leave for opportunity in finding job and earning higher



education while outsiders can migrate to the oldtown in order to start their business. This mobility makes the ties between community's members vague. The old buildings become a symbol reminding that *Thalang* road community is still exist; 2) a contestation between community and government within a context of tourism industry. Tourism industry do not only provide community's members a chance to receive a high money profit, but also influence an authentication process in which only specific practices are certified. Tourists come to the touristic place with their expectations to experience an authentic culture although such culture is possibly representational subjects promoted and circulated through media. In order to maintain an urban space as a place where the needs of tourists and local people meet, many community's members opt to perform particular activities regarding the expectations of tourists and resulting in a change of local way of life.

Since the demand of tin in the global market increased in the 19<sup>th</sup> century, Phuket had successfully become one of the main tin producers in Southeast Asian region. The growth of tin industry transformed Phuket to be a developing city of Thailand (Siam), which attracted different people around the world to partake in employment, business, and trading. The significant player of tin industry was an oversea Chinese group called *Hokkien*. They emigrated from the Southern part of Mainland China (Fujian province) due to the brutal famine and plague during Qing Dynasty, to many major cities in Southeast Asia including Phuket and neighboring regions. Some Chinese clans operated businesses in both Phuket and Penang (a state in Malaysia), then it occurred the transnational businesses through the family connection.

Since many Chinese businessmen were the key player who had an influence on the development of Phuket in terms of socioeconomics and governance, many areas were transformed into towns in order to serve the tin industry. *Tungkha* was one of the significant towns emerged from the growth tin export, presently known as Old Phuket Town. The route planning was designed as the grid system, influenced by the western Chinese from Penang and Malacca. An important road named *Thalang*, was constructed at the center of Phuket and was considered as one of the urban development projects to serve the tin industry in 1889. It is evidently located nearby the old canal where was accessible to Andaman Sea, indicating the strategic location for transport of import and export goods. Along the road, there were commercial buildings in Chinese shophouse style that influenced from colonial architecture in Penang, Malacca, and Singapore. The road was known as the most bustling area in Phuket with the tin trading activities and foreign goods shopping.

In 1990s it was the declining remark of tin-mining industry and tourism has been the significant source of income for Phuket residents. Since then, many old shops and restaurants, that have been opened for at least three generations, were transformed into the new business conforming the modern and contemporary lifestyle of current generation. And some transformations are created to serve the visit of tourists. However, some shophouses still maintain their career tradition, for instance, gold and jewelry shops, construction material shops, Chinese traditional pharmacy, and fabric shops. In 2017, Old Phuket Town was demarcated by the Committee of the Conservation of Krung Rattanakosin and Old City as the protected zone for area conservation and sustainable development. The size of total area is 2.76 square kilometers, comprising of 10 commercial roads (including *Thalang Road*), a Buddhist temple, and Chinese shrines. Inside *Thalang Road*, there are 146 households categorizing into different types of living purposes; permanent residents, shop and restaurant occupants, tourist-related business owners, and religious places.

The road is recognized as the multicultural communities, which can be found the harmonious living of Hokkien Chinese, Indian, and Muslim owned shophouses, a Hainanese shrine, and a small Protestant church. As the characteristics of community has been close-knit, one of the members started to share an interesting narrative that reminisces about his childhood life and the monitoring of community members, as stated:

“Back in 30 years ago, I used to walk with my relatives to *Chalerm Tan Theater* (a former famous theater in Phuket). While we were walking there as usual, we were also chasing each other on the road and were making loud noise. After got back home, my parent found out that we were too naughty

outside the house and probably disturbed our neighbor. I had a feeling that my parent's acquaintance who lived around there told this story to them. You see, everyone knew each other and knew whose are the kids' parent. It is a system of community surveillance." (a shophouse owner, personal communication, July 14, 2016)

Moreover, a mobility of *Thalang* community members make this case more complex. On one hand, outsiders may identify themselves as community members if they have migrated and stayed in *Thalang* road for over years, but they may simultaneously bring the distinctive practices from their hometown. On the other hand, the insiders may accept a global trend and transform their house into places for servicing tourists. Modern-fashion shops, western-style café, and international restaurants thus could be found in the vicinity of *Thalang* road. The characteristics of the place, however, is unstable. Local people strive to develop their conspicuous identity by combining a local tradition with a universal lifestyle.

## 5.2 Mode of Interaction and Transformation of Space-time

Since *Thalang* is central to a mobility of various groups of people, the practices of such people are variegated regarding their cultural and social backgrounds. Not only mode of tourist – the practices of tourists in relation to their aims of travel – could be observed, but also different local practices could be found. Participants such as, street-food sellers, clothe-stall owners, shopkeepers, elderly residents, younger generations who have lived in this area, street artists, domestic and international tourists have their own perspective in participating in the public space of *Thalang*. The common achievement of everyone is an exchange of resources economically, socially, and culturally. In this regard, the concept of gentrification has undergone all along the road in order to conform with the growth of tourism. Many shophouses were taken over by new owners because of financial reason, as narrated.

"My family sold 2 blocks of shophouse to a foreign investor last year. They cost 24 million baht. We think the maintenance of old building would require a high expense. Local government is trying to encourage us to preserve the old building in this road, but their budget is only adequate for the staged front renovation of the shophouse. We cannot afford for the long term." - (a former shophouse owner, personal communication, July 26, 2016)

It shows that some shophouses used to belong to many extended Chinese clans and the offspring, when they grew up, would transfer to other areas in order to build their own family. Thus, the shophouses, after the parent generation, were left and not being used for tourism purpose. To possess a hundred-year-old building, it is challenging for the owner to burden a lot of finances for maintenance and renovation every decade, as narrated:

"I really want to own these shophouses. I know I am a newcomer but I try to understand people here and learn about history of Old Phuket Town. I will keep everything as it used to be. I don't want it to be cafe or restaurant. Last month, I bought a block of former-opium shophouse that still has 2 old ladies living inside. I know it must be difficult for them to leave this house. So, I gave them 5 months of preparation to move out. During the extension, I hired 2 photographers to collect the photos of the 2 ladies' everyday activities by not disturb their comfort of stay. I want them to have a great memory of the house." (a shophouse owner, personal communication, July 27, 2016)

The people who participate in the space of *Thalang* road perform their day-to-day activities with expectations and perceptions in accordance with their position and a mode of interaction. The outsiders may feel an attachment to the place regarding their memory. An employee of tourist information center, who constantly come to work at day time, said that:

"I know everyone here. I am new but I like to talk with people in this community. I started interact with them from a municipality's project 'local food for local life'. There was a group of students

learning how to make the Phuket food and then I have to distribute it to people in the community. How would I miss a single one? I know all 146 households living here. Once, I met an old lady of Krisna shophouse and saw that she was carrying so many things. I helped her and we walked to her house. She let me in her house for a rest and having a sip of drink in return. I can feel some families here are nice, but some are not really socialized with others. Maybe because I am just a staff you know I don't live here." (a staff, personal communication, March 13, 2017)

The tourists may have an expectation to perceive the real practices which is authentic and is not promoted by the government. However, they are still in a tourist mode in which the real practices of local people are not embraced. One tourist who came to visit the road on holidays said:

"I came here to see what is going on here, but all shops close on Sunday. It is so disappointed. There is only walking street after 4 o'clock. Why these shops close the other days. I want to see their life here, not to see this kind of performance." (a foreign tourist, personal communication, March 15, 2017)

Simultaneously, local people seem to adjust themselves to the need of tourists since the tour considerably transforms physical space and local culture. Aon, 30-year-old, resident of *Thalang* community, provided an information implying the change of commercial activities.

"Tourism have a significant effect on people activities. Previously, *Thalang* road was a place where Phuket people could find products for their day-to-day life, especially materials for a building construction. Nowadays, people do not want to visit *Thalang* road for such things because they cannot find parking lots and the road is crowded with tourists. The construction material shops have been closed as a result. Only shops which conform to tourism industry can survive." (Aon, personal communication, July 26, 2018)

It could be seen that the interaction among people have transformed a space of the road. Although the participants do not directly communicate their needs to one another, the practices of both insiders and outsiders influence the way people perform in the space of the road.

## 6. Discussion and Conclusion

The authenticity is based on a cultural and historical background of space, and mode of interaction is a substantial component of spatializing-culture mechanism. An urban space does not only contain three-dimensional spaces comprised of physical features like width, height, and depth, but also convey the fourth dimensional space in which a number of histories and cultures are connoted. However, the space creation process is dynamic pertaining to three factors: 1) a superimposition of multiple cultures and histories; 2) a mobility of people; 3) a production process which proliferates human society socially, politically, and economically. The study of interaction among societal members reveals that such three factors are transformed and interwoven into a contemporary urban space.

According to its location and historical background, Phuket is central to migration of Chinese, Muslim, Southern Indians, and Southern Thai people. The province becomes a place where contestation among groups is occurred. Then tourism industry provokes a drastic transformation of local culture since the 1990s. A space of *Thalang* road symbolizes authenticity of locality in various aspects. In other words, the community members are expected to live, eat, and have a leisure time authentically. Nonetheless, propelled by economic factors, a commodification is chief in a spatializing process. Dealing with needs and wants of tourists, *Thalang* community's members have to learn how to act and perform their daily life in the tourism space without losing of authenticity of locality. At the same time, tourists may feel that the local traditions are invented and deceased. The tourists tend to perceive that a contemporary way of life, integrated into globalizing culture, is more appropriate. A negotiation between local people and tourists initiates a mode of interaction in which cultural value and means of authenticity are evaluated.

## 7. Conclusion

In a spatializing-culture process, the interaction among people has three functions: 1) The connotative meanings of cultures and histories are reinterpreted; 2) cultural means are reproduced when such interaction occurs; 3) A continuity of space is maintained. Since space is temporal, everyday interaction of people reconstructs a connection between a past and a present time. This continuity insists the existence of traditions although local culture could be transformed, and architectures are reprogrammable.

For the future research, the study in spatializing-culture process should include the phenomenon when authority powers of hegemonic group and sub group are contested in the management process. The former possibly promote particular culture for tourism while the latter needs to negotiate their diverse practices. The diversity of sub cultures is a resource for developing the spirit of place, but it may not conform to a formal identity of the province proposed by hegemonic groups. In this regard, all the minor voices could be included in the tourism management which shows the more efficient way to develop cultural tourism.

## 8. References

- Appadurai, A. (2000). Introduction: Commodities and the Politics of Value. In A. Appadurai (Ed.), *The Social Life of Things: Commodities in Cultural Perspective* (pp. 3-62). Cambridge: Cambridge University Press. (Original work published 1986).
- Barthes, R. (1972). *Mythologies*. New York. The Noonday Press.
- Boorstin, D. (1964). *The Image: A Guide to Pseudo-events in America*. New York. Harper.
- Cohen, E. (1979). A Phenomenology of Tourist Experiences. *Sociology*, May, pp. 179-201.
- Frost, W., Laing, J. H., and Williams, K. A. (2015). Exploring the Contribution of Public Art to the Tourist Experience in Istanbul, Ravenna and New York. *Journal of Heritage Tourism*, 10(1), pp. 57-73.
- Kopytoff, I. (2000). The Cultural Biography of Things: Commoditization as Process. In A. Appadurai (Ed.), *The Social Life of Things: Commodities in Cultural Perspective* (pp. 64-91). Cambridge: Cambridge University Press. (Original work published 1986).
- Lefebvre, H. (1991). *The Production of Space*. Oxford: Oxford University Press.
- Long, Philip. (2017). The Parallel Worlds of Tourism Destination Management and the Creative Industries: Exchanging Knowledge, Theory and Practice. *Journal of Policy Research in Tourism, Leisure and Events*, 9(3), pp. 331-340.
- Low, S. (2017). *Spatializing Culture: The Ethnography of Space and Place*. New York: Routledge.
- MacCannell, D. (1973). Staged Authenticity: Arrangements of Social Space in Tourist Settings. *American Journal of Sociology*, 79(3), pp. 589-603.
- Proshansky, H., Fabian, A., and Kaminoff, R. (1983). Place-Identity: Physical World Socialization of the Self. *Journal of Environmental Psychology*, 3, pp. 57-83.
- Richards, Greg, and Wilson, Julie. (2007). Creativities in Tourism Development. In *Tourism, Creativity, and Development*, Greg Richards and Julie Wilson (eds.). New York: Routledge, pp. 255-288.
- Richards, Greg. (2018). Cultural tourism: A review of recent research and trends. *Journal of Hospitality and Tourism Management*, 16, pp. 12-21.
- Uriely, N. (1997). Theories of Modern and Postmodern Tourism. *Annals of Tourism Research*, 22, pp. 982- 984.
- Urry, J., and Larsen, J. (2011 [1990]). *The Tourist Gaze 3.0*. London: Sage Publications.
- Urry, J. (1992). The Tourist Gaze “Revisited”. *American Behavioral Scientist*, 36(2), pp. 172-129

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## Time and space characteristics of Thailand's tourism network attention and its coupling with tourism safety

Wang Xin<sup>[2]</sup> and Wang Guoquan<sup>[3]</sup>

College of Tourism Science, Beijing International Studies University

Beijing 100024, China

Email:wangguoquan1124@163.com

**Abstract:** Thailand has become the most visited destination country for Chinese outbound tourists. While the scale of Chinese outbound tourists to Thailand is increasing year by year, tourism safety accidents in Thailand are also occurring constantly. Therefore, based on Baidu Index, this paper collects the daily network attention of Thailand tourism in the past five years (2014-2018), analyses its spatial and temporal differences, and explores its spatial and temporal coupling with Thai tourism safety network attention index. Result shows that the annual fluctuation of Thailand's tourism network attention is relatively large, but the overall trend is upward, while the monthly change trend of Thailand's tourism network attention is highly consistent. Thailand tourism network attention and tourism safety network attention in provinces, cities and regions ranking has a high coupling.

**Key words:** Thailand tourism; Tourism network attention; Tourism security; Spatial and temporal characteristics

### 1. Introduction

Outbound tourism is an important part of tourism development in China. Its great development has promoted the expansion of China's tourism economic space and the vertical extension of the tourism industry chain, bringing new market opportunities for domestic tourism enterprises (Yang Jun, 2006, pp. 65-68.) China has maintained the world largest source of outbound tourists for many years. In 2018, the number of outbound tourists from Chinese citizens reached 149.72 million, an increase of 14.7% over the same

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[2]First author profile: Wangxin (1979-), Professor of College of Tourism Science, Beijing International Studies University, Beijing 100024, China. Email: chu\_wangxin@163.com

[3]Corresponding author profile: Wangguoquan (1994-), Postgraduate student majoring in Tourism Management of College of Tourism Science, Beijing International Studies University, Beijing 100024, China. Email: wangguoquan1124@163.com

period in 2017. Among them, Thailand has become the country with the largest number of tourists visiting. In 2018, Thailand received a total of 10.5 million Chinese tourists, making a year-on-year increase of 7%, which is a record high. Since 1988, Thailand has become a destination country for Chinese citizens to leave the country. Since the number of mainland Chinese tourists who went to Thailand in 2015 has soared, it has grown steadily by about 10% every year and has become the cornerstone of the stable development of Thailand's tourism industry.

While China's outbound tourism market is developing steadily, Thailand's tourism safety accidents cannot be ignored. In 2017, 182 Chinese citizens were killed in accidents due to various safety activities outside China, making it the biggest killer of Chinese citizens overseas. A shipwreck in Phuket Island killed 47 Chinese tourists in 2018. The frequent safety accidents in Thailand indicate that outbound tourists of China to Thailand are seriously lacking in tourism safety awareness.

As of December 2018, the number of Internet users in China was 829 million. The number of new Internet users increased by 56.63 million. Internet penetration rate reached 59.6%, an increase of 3.8 percentage points from the end of 2017. The number of search engine users reached 681.32 million and the usage rate of Internet users was 82.2%, reaching an increase of 6.5% over 2017. The number of online travel booking users reached 4.1001 billion and the Internet users' usage rate was 49.5%, making an increase of 9.1% over 2017. With the deep integration and innovative development of China's "Internet+Tourism", more and more tourists prepare for their tourism decision-making by searching online, paying attention to and obtaining information about destinations before the tour. Therefore, the network search data records tourists' consumption hotspots, travel preferences and demand characteristics, etc., intuitively and truly reflects the attention status of the destination travel network(Cai Weimin&Peng Jing&Pei Juanjuan ,2016 , pp.61-72).

## **2. Research Objectives**

The research questions of this paper are as follows: 1.Is there any spatial and temporal characteristics of Thailand tourism network attention? 2.What kind of coupling relationship exists between Thai tourism network attention and Thai tourism safety network attention.This paper studies the spatial and temporal characteristics of tourism network attention in Thailand and its coupling with Thai tourism safety,hopes to reveal its intrinsic regular more deeply and provide relevant suggestions for the common development of China-Thailand international tourism and the safety of outbound tourism to Thailand.

## **3. Literature Review**

In recent years, the network attention index has been widely used in the tourism field. Baidu Index is a free massive data analysis service based on Baidu web search and Baidu news search to reflect the "user attention" and "media attention" of different keywords in the past period of time(Li Shixia & Tian Zhimei,2014,pp. 56-59). Due to its wide audience and easy access to data, Baidu Index has become an important data acquisition

tool and platform for analyzing users' online attention to a certain destination or a certain tourism activity and exploring network attention interrelationships and impact mechanisms with tourism activities(He Xiaozhen&Liu Yu&Wu Yanfa,2017,pp.103-108+124). In the study of tourism network attention and spatial and temporal distribution characteristics,a large number of researches ranging from small tourist attractions(Zhang Xiaomei & Cheng Shaowen & Liu Xiaolei & Wang Qi & Li Zhaohong,2016,PP,196-202+ 207;Yuan Jinfeng & Zhao Hui,2018,pp.265-268;Sun Xiaotong & Yang Xiaoxia & Zhang Fengyi, 2018,pp.81-88;Xu Fan & Yu Wei, 2016, pp.489 -493) to large cities ( Meng Sicong & Ma Xiaodong,2017, pp.102-115; Ding Xin & Wang Jingqiang & Li Yongquan, 2018,pp.709-714; KongXiaoqin, 2017,pp.39- 45)and provinces(He Wei & Wahaha·Hallik&Zhu Yongfeng,2018,pp.16-24;Zhao Caihong,2018;Shi Zhangyu & Fang Li,2016,pp.106-111) was made. In addition, scholars have conducted a lot of research on the attention of the travel safety network attention based on Baidu index. At the level of domestic tourism safety network attention, Zou Yongguang etc.obtained the tourism safety network attention data of 31 regions in China from 2009 to 2013 through Baidu Index and analyzed time and space characteristics of tourism safety network attention(Zou Yongguang & Lin Yiling & Zheng Xiangmin,2015,pp.101-109) ; Sun Wei、 Li Yongquan used the panel data of 31 regions in China from 2011 to 2015 and analyzed the influencing factors of China tourism safety network attention(Sun Wei & Li Yongquan,2018,pp.693-697). At the level of attention of foreign tourism network attention, Leng Linyan、 Zheng Xiangmin studied the regional differences and influencing factors of Japan tourism safety network attention in 31 provinces, autonomous regions in China based on Baidu index(Ling Linyan & Zheng Xiangmin,2018,pp.67-76).

Existing research indicates that there are insufficient researches on the tourism safety network attention of countries in outbound tourism destinations. This paper studies the spatial and temporal characteristics of the attention of Thailand tourism network through the keyword search function of Baidu Index, and further studies its coupling relationship with the attention of tourism safety network.

#### **4. Research Methodology**

Baidu is the world largest Chinese search engine and Chinese website. Baidu search index is based on the search volume of users on Baidu, with keywords as the statistical object, scientific analysis and calculation of the weighted sum of the search frequency of each keyword in Baidu web search. As of December 2016, in China comprehensive search engine brand penetration rankings, Baidu search ranked first with 82.9% user penetration rate. Based on relevant research of past scholars(Deng Aimin & Wang Ruijuan,2014,pp.143-152; Ma Wei & Zhang Yaonan & Min Yufang & Chen Wei,2016,pp.857-864;Wang Hongwei & Zhang Yiwei, 2012, pp.837-845). and referred to the keyword recommendation and search index comparison of Baidu index platform,I use there searching keywords- “Thailand Travel + Thailand Travel Strategy + Thailand Tourist Attractions”as the network attention of the Thai tourism on Baidu Index.The keyword “Thailand Travel Notes” can reflect the degree of attention of Thai tourists to Thailand tourism safety. Therefore,the keyword



“Thailand Travel Notes” is regarded as the network attention of Thailand tourism safety. Finally, another two keyword mining tool websites of Aizhanwang and Webmaster Tools are used to further test the representative of the selected keywords. Results are consistent before and after. This paper uses seasonal concentration index and other metering method to do the research scientifically.

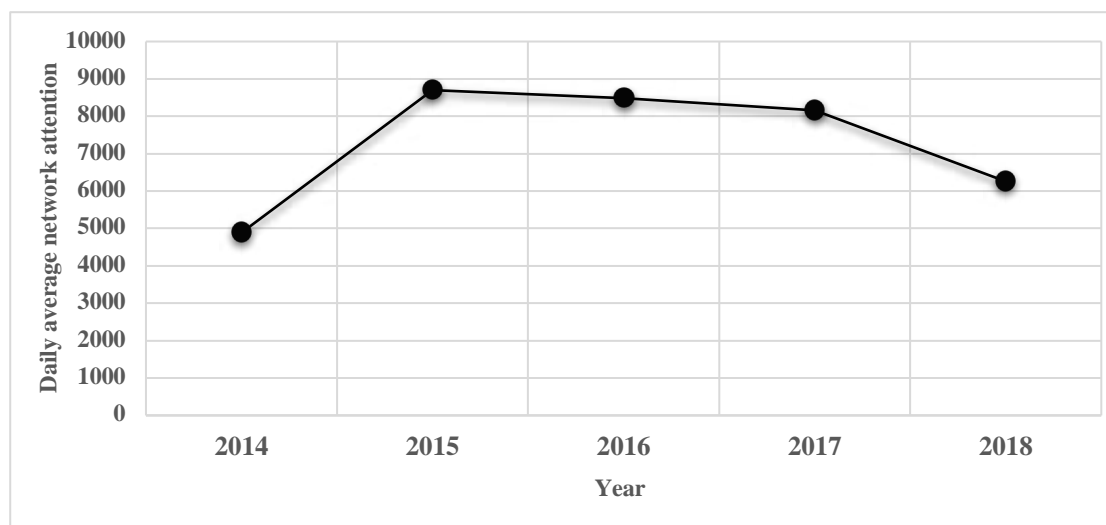
## 5. Results

### (1) Time distribution characteristics of network attention in Thailand tourism

#### 1 Annual characteristics of Thai tourism network attention

Firstly, the retrieval time is selected in 2014-2018 and the attention of Thailand tourism network is recorded day by day. The annual daily average is calculated by adding up each year and the annual variation characteristics are obtained (Fig.1). In the past five years, the annual fluctuation of Thai tourism network attention is relatively large, but the overall trend is on the rise. In 2015, compared with the previous year, it grew rapidly and showed a large increase. After 2015, it went downward. Among them, Thailand tourism network in 2018 declined most significantly.

Fig. 1 Interannual change charts of Thailand tourism network attention



#### 2. Seasonal Characteristics of Thai Tourism Network Attention

The daily network attention of Thailand Tourism in 2014-2018 will be added to the monthly average value of the month to obtain its seasonal distribution characteristics (Figure 2). In the past five years, the trend of monthly changes in the attention of the Thai tourism network is highly consistent. It is generally “W” type and has the characteristics of “double peaks and two low valleys”. During the year, the two peaks of attention appeared in February-February and July, and the attention in June or November was the lowest in the whole year. When the Chinese Lunar New Year arrives, the attention of Thailand tourism begins to rise slightly. Generally, high attention is formed between the seventh day and the fifteenth day of lunar year. (the specific time period refers to the Lunar New Year, usually at the end of February). Since then, the degree of attention has begun to decline rapidly; the other peak is from the end of June to the beginning of

July (generally from June 25th to July 10th). At this time, it is in the domestic summer holiday period and also the starting time period for students’ summer vacation.

In order to analyze the seasonal differences in attention of the Thai tourism network, this study introduces the Seasonal Concentration Index, which reflects the time concentration of the attention of the tourism network. The formula is as follows:

$$S = \sqrt{\sum_{i=1}^{12} \frac{(X_i - 8.33)^2}{12}}$$

Where: i stands for the month,  $X_i$  is the proportion of the i-month network attention in the annual network attention; S is the annual season concentration index, the larger the S value, the greater the time difference of the network attention; The closer the value is to 0, the smaller the difference and the more uniform the annual distribution.

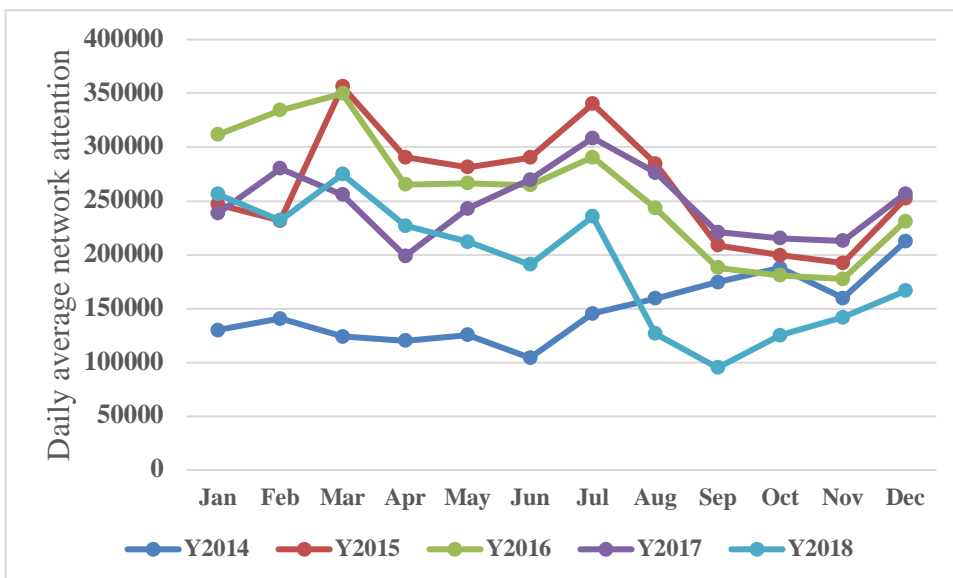


Fig. 2 Seasonal Variation Characteristics of Thai Tourism Network Attention

Table 1 Seasonal Concentration Index of Thailand Tourism Network Attention

Year	2014	2015	2016	2017	2018
Seasonal Concentration Index	1.686	1.582	1.781	1.048	2.445

Table 1 shows that the seasonal concentration index of Thailand tourism network attention in the past five years is between 1.048 and 2.445, which indicates that the seasonal distribution of Thailand tourism network attention has little difference. On the basis of the existing research(Lu Song & Lu Lin & Wang Li & Wang Wei & Liang Dongdong & Yang Wei, 2004,pp. 250-256;Guo Lili, 2018,pp.109-116), the attention season of tourism network is further divided into off season, plain season and peak season (Table 2). After calculating, it is found that Thailand tourism network has the characteristics of short off-season and long peak-season.

September-November is usually the off season, January and December are the plain season, February-August is the peak season.

Table 2 Thailand Tourism Network Concerns Season Division Standard

Table 3 Division of Tourism Concern from 2018 (2) Spatial distribution	NO	Meeting conditions	Seasonal division	Seasonal Thailand Network 2014 to
	1	Monthly network attention <80%* annual average monthly network attention	off season	
2	Monthly network attention = (80% - 100%) * annual average monthly network attention	flat season		
3	Monthly Network Attention > Annual Average Monthly Network Attention	peak season		
Year / Season				
Off season				
Flat season				
Peak season				
2014	6	1、2、3、4、5、7	8、9、10、11、12	
2015	9、10、11	1、2、12	3、4、5、6、7、8	
2016	9、10、11	8、12	1、2、3、4、5、6、7	
2017	None	1、4、5、9、10、	2、3、6、7、8、12	
2018	8、9、10、11	11	1、2、3、4、5、6、7	
		12		

characteristics of Thailand tourism network attention

This study uses the “crowd portrait” function of Baidu index platform to know about the user information flow that pays attention to a certain keyword in a certain period of time in the country and achieve the source of space based on the user’s IP attribution. In the Baidu index query, enter “Thailand Travel + Thailand Travel Guide + Thailand Tourist Attractions”, select the “Crowd Portrait” function, select the data from April 15, 2016 to April 15, 2019, you can get search volume in the past three years. The top 10 provinces, cities and regions are as follows. (see Table 4).

Table 4 Thailand tourism network attention ranks  
in the top 10 provinces and cities and regions

Network attention ranking					
Types	1	2	3	4	5
Province	Guangdong	Jiangsu	Zhejiang	Sichuan	Beijing
City	Beijing	Shanghai	Chengdu	Guangzhou	Hangzhou
Region	East China	North China	South China	Central China	Southwest

As can seen from 1, the provinces high	Types	6	7	8	9	10	be Table with
	Province	Shanghai	Shandong	Henan	Hubei	Liaoning	
	City	Shenzhen	Chongqing	Wuhan	Suzhou	Zhengzhou	
	Region	Northeast	Northwest	\	\	\	

attention to tourism in Thailand are mainly concentrated in several eastern coastal provinces with high economic development level. The incomes of residents in these economically developed provinces are high. Besides, the Internet usage rate is high and the traffic network is developed, which means that the willingness of traveling abroad is strong and the network attention is high as a result. In addition, among the top 10 cities with the highest network attention to Thai tourism, except for Zhengzhou City ranking 13th, the other 9 cities are in the top 10 of the top 100 cities of China in 2018, indicating that the economic development level of the city and its residents' willingness of travelling to Thailand is highly consistent. At the regional level, East China, North China and South China have the highest network attention. In the 2018 China's regional GDP rankings, East China, Central China, South China, North China, Southwest China, Northeast China and Northwest China ranked 1-7 respectively. Except for the 1st and 4-7 GDP rankings, which are consistent with the ranking of attention, the 2-4 GDP rankings differ from the online attention rankings, indicating that the regional economic development level is not exactly the same as the local residents' willingness to travel to Thailand.

### 3. Coupling study with network attention on tourism safety

Existing domestic research shows that the network attention degree of tourism and the actual tourist volume are highly coupled in terms of time and space dynamics. Tourism network attention can be regarded as the precursor indicator of the tourist reception volume. The tourism safety network attention index also has obvious "precursor effect". Exploring the time and space coupling between Thailand tourism network attention and tourism safety network attention has certain value for further study of the safety awareness and influencing factors of Chinese tourists in Thailand.

This study selected Thailand Tourism and Tourism Safety Network attention in the past five years (2014.4.15-2019.4.15) and derived its daily average value within five years (Figure 3). Through comparison, it is found that in the past five years, the network attention index of Thailand's tourism safety is close to one tenth of that of Thai tourism. That is to say, only one in ten domestic residents with strong willingness to travel to Thailand has a strong willingness to pay attention to the safety of tourism, which indicates that China domestic tourists to Thailand are seriously lack of awareness of tourism safety.

#### (1) Time coupling analysis of Thailand tourism and tourism safety network attention

The "Thailand Travel Network Attention" consisting of "Thailand Travel + Thailand Travel Guide + Thailand Tourist Attractions" and "Thailand Travel Safety Network Attention" represented by "Thailand Travel Notes" are quite different in magnitude. It is impossible to visually characterize the temporal

coupling between the two. In order to better compare the intrinsic coupling relationship between the network attention of Thailand tourism and its tourism safety network, this paper synthesizes the pre-tourism habits and scale suitability, selects the “Thailand Travel Guide” with good representation. Based on comparison, it can be concluded that the network attention of Thailand tourism safety has barely increased in the past five years which kept stable in the whole process. Besides, the network attention of Thailand tourism has a certain degree of coupling with Thai tourism safety in time. That is to say, in the period of high tourism network attention in Thailand, the search index of tourism safety is often higher, which is consistent with the related research by previous scholars.

## (2) Space coupling analysis of Thailand tourism and tourism safety network attention

Based on Baidu index search volume of Thailand's tourism and travel safety in the last five years (2014.4.15-2019.4.15), the top 10 China domestic provinces, cities and region. It can be seen from Table 5 that Thailand tourism network attention and its tourism safety network attention have high coupling in the provinces, cities and regions, but each has certain discrepancies. At the provincial level, the top 4 China domestic provinces in Thailand tourism network attention and tourism safety network attention are consistent, followed by Guangdong, Jiangsu, Zhejiang, and Sichuan. Compared with the tourism network attention, Shandong has increased by two, from the seventh to the fifth; Hubei has increased by one, from the eighth to the seventh; Beijing, Shanghai and Henan have decreased by one, while Liaoning has remained unchanged and no new provinces have emerged. At the city level, the top three China domestic cities in Thailand's tourism network attention and tourism safety network attention are consistent, followed by Beijing, Shanghai and Chengdu. Compared with tourism network attention, in the city ranking of Thai tourism safety network attention, Shenzhen rose two, from sixth to fourth; Guangzhou dropped one, from fourth to fifth; Hangzhou dropped one from fifth to sixth; Chongqing, Wuhan and Suzhou remained unchanged, Nanjing replaced Zhengzhou in the tenth place. At the regional level, the rankings of East China, Southwest China, Northeast China and Northwest China remained unchanged, ranking first, fifth, sixth and seventh respectively. Compared with tourism network attention, in the domestic ranking of tourism safety network attention, North China dropped two places, from the second place to the fourth place; South China and Central China rose one place, respectively to the second and third place. In the aspect of China, Chinese tourism authorities should take targeted measures to address the changes in this ranking and strengthen the propaganda of tourism safety in Thailand. All Chinese travel agencies operating tourism to Thailand should strengthen security awareness and do a good job in tourism risk prevention. In the aspect of Thailand, Thailand tourism authorities should always maintain a sense of tourism safety awareness. In response to the awareness of tourists in different regions of China, they should make good adjustment and control strategies in advance. Certain pre-control measures should be taken when facing extreme weather or other abnormal condition to ensure that the safety of tourism to Thailand is steadily rising, while the scale of Chinese tourists to Thailand is increasing.

Table 5 Comparison of Thailand Tourism Network Concern  
and Tourism Safety Network Attention

Type	Province		City		Region	
Rank	Tourism	Tourism Safety	Tourism	Tourism Safety	Tourism	Tourism Safety
1	Guangdong	Guangdong	Beijing	Beijing	East	East
2	Jiangsu	Jiangsu	Shanghai	Shanghai	North	south
3	Zhejiang	Zhejiang	Chengdu	Chengdu	south	Central
4	Sichuan	Sichuan	Guangzhou	Shenzhen	Central	North
5	Beijing	Shandong	Hangzhou	Guangzhou	Southwest	Southwest
6	Shanghai	Beijing	Shenzhen	Hangzhou	Northeast	Northeast
7	Shandong	Shanghai	Chongqing	Chongqing	Northwest	Northwest
8	Henan	Hubei	Huhan	Huhan	/	/
9	Hubei	Henan	Suzhou	Suzhou	/	/
10	Liaoning	Liaoning	Zhengzhou	Nanjing	/	/

## 6. Discussion and Conclusion

Based on Baidu Index, this study collected the daily network attention of Thailand tourism in the past five years (2014-2018), analyzed its spatial and temporal differences and explored its spatial and temporal coupling with the Thailand tourism safety network attention Index. Main conclusions are as follows:

First, in the past five years, the trend of monthly changes in the Thai tourism network attention is highly consistent. It takes the shape of “W” as a whole and has the characteristics of “double peaks and two low valleys”. The two peaks of attention during the year appeared at the end of February to early March and the end of June to early July. The tourism network attention in June or November was the lowest in the whole year. From the seventh day of the lunar new year to the fifteenth day of the first lunar month and from the beginning of the summer vacation are the two peak time slot on Thai tourism network attention.

Second, the seasonal distribution of Thailand tourism network attention is relatively small. Thailand tourism network attention has the characteristics of short off-season and long peak season. September-November is usually a low season, January and December are flat seasons, February-August is a high season.

Third, provinces with high tourism network attention on Thailand are mainly concentrated in the eastern coastal provinces with high economic development level. At the same time, the level of economic development of China domestic cities is highly consistent with the willingness of residents to travel to Thailand, while the level of regional economic development is not completely consistent with the willingness of local residents to travel to Thailand.

Fourth, the attention of Thailand's tourism safety network has remained stable in the past five years and the network attention of Thailand tourism has a certain degree of coupling in time. China domestic tourists to Thailand are seriously lack of awareness of tourism safety.

Fifth, Thailand tourism network attention and tourism safety network attention have high coupling in the provinces, cities and regions, but each has certain discrepancies.

When China and Thailand carry out tourism cooperation in depth, they should pay more attention to the spatial and temporal distribution characteristics of tourism network attention and its internal regulars. In addition, tourism safety has always been a topic for Chinese outbound tourists. Both countries need more in-depth cooperation to grasp the most immediate pre-decision information of tourists and do a good job of timely regulation and prevention.

## References

- Yang Jun. Analysis of the “Double High” Pattern and Policy Orientation of China Outbound Tourism—— Concurrently Discussing with Dai Xuefeng and Wu Ning Comrades[J]. *Tourism Journal*, 2006(06):65-68.
- China Internet Information Center. The 43rd China Internet Development Statistics Report [R]. 2019-02-28
- Cai Weimin, Peng Jing, Pei Juanjuan. Research on Lushan's National Network Concern Heat Matrix and Promotion Strategy[J]. *Tourism Science*, 2016, 30(04): 61-72.
- Li Shixia, Tian Zhimei. Analysis of Factors Affecting the Attention of Tourism Destination Network Based on Baidu Index——Taking Qingdao as an Example[J]. *Journal of Capital Normal University(Natural Science Edition)*, 2014,35(01):56 -59.
- He Xiaozhen, Liu Yu, Wu Yanfa. Study on the Temporal and Spatial Characteristics of Concerns of Hot Spring Tourism Network Based on Baidu Index[J]. *Areal Research and Development*, 2017,36(01):103-108+124.
- Zhang Xiaomei, Cheng Shaowen, Liu Xiaolei, Wang Qi, Li Zhaohong. Temporal and Spatial Characteristics of Network Attention Degree in Ancient Cities and Its Influencing Factors——Taking Pingyao Ancient City as an Example[J]. *Economic Geography*, 2016,36(07):196-202+ 207.
- Yuan Jinfeng, Zhao Hui. A Comparative Study of Tourism Attention in National Museums in Xixian Area Based on Baidu Index[J]. *Value Engineering*, 2018, 37(29): 265-268.
- Sun Xiaotong, Yang Xiaoxia, Zhang Fengyi. Research on Distribution Characteristics of Network Attention Degree of Chinese Class A Tourist Caves Based on Baidu Index[J]. *Journal of Southwest China Normal University(Natural Science)*, 2018, 43(04): 81-88.
- Xu Fan, Yu Wei, Yuan Xing, Hu Meijuan. Study on the Space-time Distribution of Cyberspace Based on Baidu Index——Taking the 5A Level Scenic Spot in the Yangtze River Delta as an Example[J]. *Resource Development & Market*, 2016,32(04):489 -493.
- Meng Sicong, Ma Xiaodong. Research on Lianyungang Tourism Network Concern Based on Baidu Index[J]. *Travel Forum*, 2017, 10(05): 102-115.

- Ding Xin, Wang Jingqiang, Li Yongquan. Research on Time and Space Characteristics and Influencing Factors of Tourism Destination Network Concern Based on Baidu Index——Taking Xiamen City as an Example[J].Resource Development & Market,2018,34(05):709- 714.
- Kong Xiaoqin.Spatial and Temporal Characteristics of Tourism Attention Based on Baidu Index and Its Driving Mechanism——Taking Linzhi of Tibet as an Example[J].Journal of Wuxi Institute of Commerce and Technology,2017,17(03):39-45.
- He Wei,Wahaha·Hallik,Zhu Yongfeng.The Spatial and Temporal Differences of Tourism Attention in Xinjiang and Its Influencing Factors[J].Journal of Natural Science of Hunan Normal University,2018,41(03):16-24.
- Zhao Caihong. Research on the attention structure of regional tourism destination network search [D]. Shandong University, 2018.
- Shi Zhangyu, Fang Li.Study on the Temporal and Spatial Characteristics of Network Attention Degree in Anhui Scenic Spots[J].Journal of Anqing Teachers College(Natural Science Edition),2016,22(04):106-111.
- Zou Yongguang, Lin Yiling, Zheng Xiangmin. Temporal and Spatial Characteristics of Tourism Safety Network Concern and Its Influencing Factors[J]. Tourism Journal, 2015, 30(02): 101-109.
- Sun Wei, Li Yongquan. Analysis of Factors Affecting the Attention of China Tourism Safety Network——An Empirical Test Based on Chinese Provincial Panel Data[J].Resource Development & Market,2018,34(05):693-697.
- Ling Linyan,Zheng Xiangmin.Analysis of Regional Differences of Attention in Japan Tourism Safety Network and Its Influencing Factors[J].Tourism Research,2018,10(04):67-76.
- China Internet Information Center. 2016 China Internet Users Search Behavior Survey Report [R].2017.
- Deng Aimin, Wang Ruijuan. Research on the Attention of Tourism Destination Based on Baidu Index——Taking Wuhan City as an Example[J].Roca Management Review,2014(02):143-152.
- Ma Wei,Zhang Yaonan,Min Yufang,Chen Wei.Spatial and Temporal Analysis of Tourist Sources in Gansu Province Based on Internet Search Data[J].Journal of Desert Research,2016,36(03):857-864.
- Wang Hongwei, Zhang Yiwei. Research on Web Users' Attention Degree Based on Baidu Index[J].Journal of the China Society of Information Science, 2012, 31 (8):837-845.
- Lu Song, Lu Lin, Wang Li, Wang Wei, Liang Dongdong, Yang Wei. Study on the Distribution Characteristics of Tourist Flows in Ancient Villages and Its Influencing Factors——Taking World Cultural Heritage Xidi and Hongcun as Examples[J].Geography Science , 2004 (02): 250-256.
- Guo Lili. Research on Temporal and Spatial Characteristics and Influencing Factors of Sunshine Tourism Network Concern Based on Baidu Index[J].Journal of Qufu Normal University(Natural Science Edition), 2018,44(03):109-116.



## Understanding Tourism-related Instagram hashtag utilization behavior

Nathatenee Gebsubut<sup>1</sup>, Lakkana Hengboriboon<sup>2</sup>, Sopolnawitch A. Ponglamjiak<sup>3</sup>, Nishapan Intarapanich<sup>4</sup>, Proychai Klakayan<sup>5</sup>, Thapanee Jirachottanyarat<sup>6</sup>,  
Nuttaporn Limnirunkul<sup>6</sup>, and Preeyawan Techapanitsakul<sup>6</sup>

International College  
Khon Kaen University  
Khon Kaen 40002, Thailand  
Email: nathge@kku.ac.th<sup>1</sup>  
Email: lakkhe@kku.ac.th<sup>2</sup>  
Email: sopopo@kku.ac.th<sup>3</sup>  
Email: nishin@kku.ac.th<sup>4</sup>  
Email: proykl@kku.ac.th<sup>5</sup>  
Email: kkuic@kku.ac.th<sup>6</sup>

### Abstract

Instagram become popular social media in which people can use it for posting their moments through picture. Moreover, they can add hashtag to identify specific information other people can use for as searching tools. Instagram is not only used in everyday life, but also for travelling purposes. While many researches indicate that social media and tourism industry will become larger, but Instagram hashtag is not widely utilized that as tourism association. This study aims to understand travelers' Instagram and Instagram hashtag utilization behavior. The research was evaluated by using questionnaire online to collect the data from 300 random travelers. The findings indicate that Instagram and Instagram hashtag using behavior for travel purpose differ related to age and gender. The result will provide further insight into Instagram utilization that related to tourism.

**Keywords:** Instagram; hashtag; tourism industry; user perception

### 1. Introduction

Social media now has a status of high importance in people's daily life. As such, the development of technology has improved communication to have greater efficiency and decreased any previous limitations of this necessity. Nowadays, communication technological systems have also developed rapidly from one-way communication to two-way communication in which people can create information by themselves and interact with others (Dealers & Ruamyoo, 2017). In addition, social media has enabled people to exchange, discuss, and connect with each other through text, voice, picture, video, and other related formats. People are able to communicate with everyone everywhere around the world by using online communication channels; such as, Facebook, Twitter, Line, Snapchat, as well as Instagram. At present, many people enjoy taking photos and share these photos and experiences with others. As a consequence, the social media that people are presently interested in is Instagram, as it is an online channel for communication in which they can upload and share photos as well as create a story to show their daily life. Furthermore, Instagram allows people to add a description of their photos and provide reviews. In this app, people can edit photos, follow other users to see their photos, and encourage others to see the uploaded photos. Additionally, Instagram has many features that are useful for users; for example, people can go back to see what photos they have liked, and this social media also constantly creates new features to satisfy the users. A tool that help people see photos easily in grouped topics is a hashtag.

A hashtag is a feature used for searching contents or finding interesting topic and widely used in many social media platforms. Hashtag is a symbol “#” connected with words to define keywords related to media. It helps users to categorize the content and makes it easier to discover by searching through hashtags. In tourism area, people can search for a hashtag for attractions they are interested in and can also see the review of those places. In the same way, users who search for keywords using hashtag will see all the photos from the search. In the Instagram, users can follow hashtag they prefer. If there are posts contain their followed hashtags, the posts will appear in users’ scroll page. Thus, it can make posts popular and make other people start to follow providers’ Instagram. Instagram also has a business profile for businesses, so it can be used to create a brand and generate a higher chance for people to realize businesses.

In tourism industry, travelers can see pictures that are related to destination hashtags, and they can use them for destination selection. So Instagram assists people in making a decision easier as well as helps them create a plan to travel. The current situation of the tourism industry is rapidly expanding that is also generating economic movement worldwide because this industry helps increasing income of a country as well as distribute income to the people. This can be further seen from the United Nations World Tourism Organization (UNWTO)’s report that shows in the first four months of the year 2018, the number of tourists increased from the previous year, and it is estimated that in the following year, this trend will continue to rise (The World Tourism Organization, 2018). On the other hand, this industry has high competition, and many tourism organizations have to develop their tourism attractions to draw tourists’ interests. Instagram hashtag can help supporting travelers. When travelers plan for travel, they can search information such as picture and content from hashtag in order to see clearly image, so they may have motivation to engage their travel. In term of tourism organizations, Instagram Hashtag are very useful because when they post, there is a possibility to expand their products, services or attractions.

## **2. Research Objectives**

The purpose of this paper is to study for understanding how travelers utilize Instagram hashtag for their travel intentions. To complete the aim, the author will seek to fulfill as following the objective:

1. To understand Instagram and hashtag usage behavioral of travelers for their trips.
2. To analyze the perception of travelers towards Instagram hashtag engagement.
3. To understand difference of the perception of travelers towards Instagram hashtag engagement based on demographic.

## **3. Literature Review**

### **3.1 Social media in tourism industry**

In tourism, organizations adopt technology to connect with customers by using social media (Cao, 2011). As such, the tourism providers create accounts on social media; such as, Facebook, Twitter as well as Instagram to help them reach more consumers. As a result, customers can consume information from these social media for their travel decision making. Furthermore, these social media are a powerful tool for tourism because they allow users to give their opinion and information. Travelers who already experienced tourism attractions can share their experiences through review, photos, or comment online. In the same way, travelers use information from an online platform to make a decision because tourists have various channels to obtain information; such as, online reviews, photos, comment or suggestion on a travel blogs, websites or advertisements (Zhou, Wang & Li, 2017). Then, the tourism information is used by tourists, who search for information for trips (Fodness & Murray, 1997). Through online platforms, tourists can connect with information in many travel stages including pre-trip, during trip, and after returning from the trip. In addition, tourists may seek for reliable information, so that they may collect several information and evaluate the information before trusting information. So that traveler may search for popular keywords or hashtag to screen information.

### **3.2 Instagram and hashtag**

Instagram is a social media that users can share photos or videos with a written caption in their profile and allow other people to see. Users can share photos with captions through the application. They can also add hashtag and check-in to give more information. Instagram can also be used in businesses or companies who aim to promote their own brands or products. They can use Instagram for advertising by creating posts and purchase advertisement. Organizations can also use hashtag to make other users who are interested in their products or brand. Hashtag is a word attached with the # symbol (Giannoulakis & Tsapatsoulis, 2016), which is related to posted photos. Hashtags can be used help users search for photos or information related to specific topics. When typing or clicking on the hashtag, users will go directly to posts that are related to the hashtag, especially for a popular post, which can be easily seen. Hashtags can also be seen in other social media such as Twitter and Facebook.

Hashtags can also help create a brand and also gain more attention from people. Once users feel attach with brands or products and be willing to encourage consumers to share advertisements online. which is known as engagement. Nowadays, people are utilizing Instagram more often, and they can create their own hashtag because it links and categorizes information. Thus, people can track the post on Instagram. On the other hand, they use popular hashtags to track trends of tourist attractions. Popular destination hashtags will encourage travelers to visit travel destinations or participate in events, and it could be useful for them in their decision-making.

#### 4. Research Methodology

This study is a quantitative research and survey by using questionnaire is the tool to collect data by dividing the questionnaire to 3 parts including demography, Instagram usage behavior, and hashtag engagement. Hashtag engagement questions are assessed using a 5-point Likert-type scale including “Strongly disagree” (1), “Disagree” (2), “No idea” (3), “Agree” (4), and “Strongly agree” (5). This study created the questionnaire through Google docs and send to respondents through online channels such as Facebook or Line. Because of the sample size can reach these channels conveniently and easily and it is the method that we can collect a large number of sample size in limited time. It can also help the researcher save money by using to an electronic medium replace a paper format. For questionnaire, researchers started from studying theories, concepts, and related researches and verify questions relating with the objective. After that, we sent the questionnaire to 30 random people to make the pilot test. After collected pilot data, researchers used the pilot test to analyze and evaluate questionnaire in order to adjust question. The researcher used 300 random people to do the questionnaire. Sekaran and Bougie (2016) argued that the sample size should be less than 500 sample and bigger than 30 sample are appropriate. After the researcher collected the data of 300 random people, the researchers used SPSS to analyze the data. Data collected from the questionnaires were analyzed according to descriptive statistic including enumeration of frequency, percentage, mean average determination.

#### 5. Results

Based on table 1, the random 300 people participated on online questionnaire were used for data analysis. The proportion of male has less than female, female portion is 62.7% while male portion is 37.3%. The number of people aged between 20-29 was the highest portion with 70%, followed by respondents under 20 years old (13%), 30-39 years old (10.7%) and people age 40 and above (6.3%). The education in Bachelor’s degree was 73.7%, followed by high school (20%), Master’s degree (5.7%) and Doctoral degree (0.7%).

Table 1: Demographic

Characteristics	Category	Quantity	Percent (%)
Gender	Male	112	37.3%
	Female	188	62.7%

Age	Under 20	39	13%
	20 – 29	210	70%
	30 – 39	32	10.7%
	40 or above	19	6.3%
Education	High school	60	20%
	Bachelor's degree	221	73.7%
	Master's degree	17	5.7%
	Doctoral degree	2	0.7%

Table 2 shows Instagram usage experience and frequency. In term of experience, most of people used to post travel picture on Instagram (84%) while 16% of respondents have not ever posted travel picture on Instagram. Moreover, most of people used to see or select travel attractions from Instagram (75.3%). In term of Instagram usage frequency, respondents mostly post travel picture on Instagram 1-2 times per month (38.3%), followed by less than 1 time per month (33.0%), 3-4 times per month (17.0%), and more than 4 times per month (11.7%). Moreover, respondents mostly choose travel attraction from Instagram less than 1 time per month (45.0%), followed by 1-2 times per month (33.3%), 3-4 times per month (14.7%), and more than 4 times per month (7.0%).

In term of Instagram hashtag experience, 71.3 percent of respondents have experience on posting travel picture using hashtag, while 28.7 percent have never used Instagram hashtag when they are traveling. In term of tourist attraction users may use hashtag to search for their trip, the travel attraction that tourists will mostly search for my using Instagram hashtag was natural attraction (31.7%), followed by beach attraction (17.0%), recreational attraction (12.3%). Lastly, in term of Instagram hashtag usage frequency, respondents mostly use Instagram hashtag when they are traveling 1-2 times per month (37.0%) and less than one time per month (37.0%), followed by more than 4 times per month (14.0%) and 2-3 times per month (12.0%).

Table 2: Instagram usage frequency

Characteristics	Category	Quantity	Percent (%)
Have you ever posted travel picture on Instagram?	Yes, I have	252	84%
	No, I have not	48	16%
Have you ever seen or chosen travel attraction from Instagram?	Yes, I have	226	75.3%
	No, I have not	74	24.7%
How often do you post travel pictures on Instagram?	Less than 1 time	99	33.0%
	1-2 times	115	38.3%
	3-4 times	51	17.0%
	More than 4 times	35	11.7%
How often do you choose travel attraction from Instagram?	Less than 1 time	135	45.0%
	1-2 times	100	33.3%
	3-4 times	44	14.7%
	More than 4 times	21	7.0%
Have you ever used Instagram hashtag when you post travel picture?	Yes, I have	214	71.3%
	No, I have not	86	28.7%

What kind of travel attraction that you used or may use to search from Instagram hashtag?	Eco-tourism	14	4.7%
	Arts and Sciences	23	7.7%
	Historical Attraction	22	7.3%
	Natural Attraction	95	31.7%
	Recreational Attraction	37	12.3%
	Cultural Attraction	24	8.0%
	Beach Attraction	51	17.0%
	Other	34	11.3%
How often do you use Instagram hashtag when you are traveling?	Less than 1 time	111	37.0%
	1-2 times	111	37.0%
	3-4 times	36	12.0%
	More than 4 times	42	14.0%

Table 3 shows Instagram posting behavior of defined respondents. This study found that travelers' Instagram posting behavior is related to age group. The result shows that people in age group of under 20 years old, 20-29 years old and 30-39 years old mostly has experience of posting Instagram while traveling around 1-2 times per month with 38.5 percent, 37.6 percent, 50.0 percent, respectively. However, travelers with age from 40 years old and above do not post their travel experience on Instagram with 63.2 percent. Travelers' Instagram posting behavior has no statistical difference related with gender, education, and occupation.

Table 3: Percentage and chi- square relationship between demographic and the frequency of people when post travel picture on Instagram

<i>How often do you post travel picture on Instagram?</i>	<i>Less than 1 time</i>		<i>1-2 times</i>		<i>3-4 times</i>		<i>More than 4 times</i>		<i>Total</i>	
	<i>C</i>	<i>%</i>	<i>C</i>	<i>%</i>	<i>C</i>	<i>%</i>	<i>C</i>	<i>%</i>	<i>C</i>	<i>%</i>
<i>Male</i>	31	27.7	52	46.4	17	15.2	12	10.7	112	100.0
<i>Female</i>	68	36.2	63	33.5	34	18.1	23	12.2	188	100.0
Pearson chi-square P = 0.184										
<i>Under 20</i>	13	33.3	15	38.5	3	7.7	8	20.5	39	100.0
<i>20-29</i>	65	31.0	79	37.6	42	20.0	24	11.4	210	100.0
<i>30-39</i>	9	28.1	16	50.0	4	12.5	3	9.4	32	100.0
<i>40 or above</i>	12	63.2	5	26.3	2	10.5	0	0.0	19	100.0
Pearson chi-square P = 0.00*										
<i>Undergraduate</i>	17	28.3	20	33.3	13	21.7	10	16.7	60	100.0
<i>Bachelor's degree</i>	74	33.5	86	38.9	36	16.3	25	11.3	221	100.0
<i>Master's degree</i>	6	76.5	9	23.5	2	11.8	0	0.0	17	100.0
<i>Doctoral degree</i>	2	100.0	0	0.0	0	0.0	0	0.0	2	100.0
Pearson chi-square P = 0.138										

\*Significant = 0.05

Based on Table 4, behavior of respondents in searching for travel attraction through Instagram hashtag is significantly related to gender at 0.05. Male respondents mostly use Instagram hashtag to search for natural attraction with 23.2 percent. In the same way, female respondents mostly search for natural attraction from Instagram hashtag with 36.7 percent. However, distribution of make respondents is lower than female respondents. Travelers' Instagram hashtag searching behavior has no statistical difference related with age, education, and occupation.

Table 4: Percentage and chi- square relationship between demographic and behavior searching place from Instagram hashtag

<i>Have you ever posted travel picture on Instagram?</i>	<i>Eco-tourism</i>		<i>Art and Science</i>		<i>Historical</i>		<i>Natural</i>		<i>Recreational</i>		<i>Cultural</i>		<i>Beach</i>		<i>Other</i>		<i>Total</i>	
	<i>Count</i>	<i>Percent (%)</i>	<i>Count</i>	<i>Percent (%)</i>	<i>Count</i>	<i>Percent (%)</i>	<i>Count</i>	<i>Percent (%)</i>	<i>Count</i>	<i>Percent (%)</i>	<i>Count</i>	<i>Percent (%)</i>	<i>Count</i>	<i>Percent (%)</i>	<i>Count</i>	<i>Percent (%)</i>	<i>Count</i>	<i>Percent (%)</i>
<i>Male</i>	6	5.4	12	10.7	13	11.6	26	23.2	14	12.5	13	11.6	15	13.4	13	11.6	112	100.0
<i>Female</i>	8	4.3	11	5.9	9	4.8	69	36.7	23	12.2	11	5.9	36	19.1	21	11.2	188	100.0
Pearson chi-square P = 0.034*																		
<i>Under 20</i>	4	10.3	4	10.3	1	2.6	11	28.2	7	17.9	3	7.7	6	15.4	3	7.7	39	100.0
<i>20-29</i>	8	3.8	17	8.1	14	6.7	67	31.9	29	13.8	16	7.6	39	18.6	20	9.5	210	100.0
<i>30-39</i>	2	6.3	1	3.1	5	15.6	8	25.0	1	3.1	4	12.5	7	21.9	7	21.9	32	100.0
<i>40 or above</i>	0	0.0	1	5.3	2	10.5	9	47.4	0	0.0	1	5.3	2	10.5	4	21.1	19	100.0
Pearson chi-square P = 0.206																		
<i>Under graduate</i>	5	8.3	3	5.0	4	6.7	14	23.3	9	15.0	7	11.7	14	23.3	4	6.7	60	100.0
<i>Bachelor's degree</i>	9	4.1	19	8.6	17	7.7	72	32.6	28	12.7	13	5.9	36	16.3	27	12.2	221	100.0
<i>Master's degree</i>	0	0.0	1	5.9	1	5.9	8	47.1	0	0.0	3	17.6	1	5.9	3	17.1	17	100.0
<i>Doctoral degree</i>	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0	2	100.0
Pearson chi-square P = 0.135																		

\*Significant = 0.05

Based on Table 5, behavior of travelers on using Instagram hashtag during trip is related to gender. Male mostly use Instagram hashtag while traveling around 1 to 2 times per month with 46.4 percent. However, female mostly use Instagram hashtag while traveling is less than one times with 42 percent. The results show no statistical difference on age, education, and occupation.

Table 5: Percentage and chi- square relationship between demographic and the frequency of people when using Instagram hashtag when they traveling

<i>How often do you use Instagram hashtag when you are traveling?</i>	<i>Less than 1 time</i>		<i>1-2 times</i>		<i>3-4 times</i>		<i>More than 4 times</i>		<i>Total</i>	
	<i>C</i>	<i>%</i>	<i>C</i>	<i>%</i>	<i>C</i>	<i>%</i>	<i>C</i>	<i>%</i>	<i>C</i>	<i>%</i>
<i>Male</i>	32	28.6	52	46.4	12	10.7	16	14.3	112	100.0
<i>Female</i>	79	42.0	59	31.4	24	12.8	26	13.8	188	100.0
Pearson chi-square P = 0.046*										
<i>Under 20</i>	14	35.9	16	41.0	4	10.3	5	12.8	39	100.0
<i>20-29</i>	75	35.7	7	34.8	28	13.3	34	16.2	210	100.0
<i>30-39</i>	10	31.3	16	50.0	3	9.4	3	9.4	32	100.0
<i>40 or above</i>	12	63.2	6	31.6	1	5.3	0	0.0	19	100.0
Pearson chi-square P = 0.263										
<i>Undergraduate</i>	16	26.7	26	43.3	5	8.3	13	21.7	60	100.0
<i>Bachelor's degree</i>	88	39.8	75	33.9	30	13.6	28	12.7	221	100.0
<i>Master's degree</i>	6	35.3	9	52.9	1	5.9	1	5.9	17	100.0
<i>Doctoral degree</i>	1	50.0	1	50.0	0	0.0	0	0.0	2	100.0
Pearson chi-square P = 0.307										

\*Significant = 0.05

Table 6 shows mean and standard deviation of hashtag engagement by using the criteria to analyze as follow; first is the average score between 4.50 – 5.00 can be strongly agree, second is the average score between 3.50 – 4.49 can be agree, third is the average score between 2.50 – 3.49 can be no idea, fourth is the average score between 1.50 – 2.49 can be disagree and the last one is the average score between 1.00 – 1.49 can be strongly disagree. Based on table 6, agreement on Hashtag engagement has mean equal to 3.6322 and

SD is 0.98291 which is under category of agree. Table 7 shows mean and standard deviation of hashtag engagement based on gender. Based on table 7, the result of comparative between the group of gender in hashtag engagement have difference in significant 0.05. Male has hashtag engagement more than female. Perception of male respondents towards hashtag engagement is under agree category while perception of female respondents towards hashtag engagement is under no idea category.

Table 6: Statistic results; Mean and SD for each factor

<i>Factors</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Hashtag Engagement</i>	3.6322	0.98291

Table 7: The average, standard deviation and statistics to test hypothesis of comparative and difference in hashtag engagement separated by gender.

<i>Factors</i>	<i>Male</i>		<i>Female</i>		<i>t</i>	<i>P</i>
	$\bar{x}$	S.D.	$\bar{x}$	S.D.		
<i>Hashtag Engagement</i>	3.8780	0.96898	3.4858	0.96420	3.401	0.001

\*Significant = 0.05

## 6. Discussion and Conclusion

This study attempted to analyze the behavioral intention for using an Instagram hashtag in tourism. The Instagram posting behavior is related with age. Different generations have diverse ways of life and technology adoption capability. As such, different generations will receive and use technology in different ways. Bolton et al. (2013) argued that the younger generation are always updating their life by using social media; such as, Facebook and Instagram to make other people know what they are doing, as well as posting photos to share their experiences. Conversely, the older generation rarely uses social media, so they will post less pictures than other age groups. However, Instagram hashtag searching behavior for tourist attraction is related with gender. Males and females may have different lifestyles and ideas about making a decision to travel. For example, most males like adventure travel with nature and mountains, but females prefer traveling to natural and beautiful places, so they can take a picture. Rokeach (1973) stated that people are different in their thinking, expression and also their decision, so males and females have different thinking in choosing the destination or travel attraction when they have to make a decision. In term of Instagram hashtag usage frequency, the hashtag usage behavior is related with gender. Male respondents prefer to use Instagram hashtag while traveling more than female respondents. In order to understand more about hashtag engagement of travelers, this study asked questions related with Instagram hashtag engagement using Likert scale. Travelers have a positive mindset on hashtag engagement. The study shows that respondents had satisfaction in using hashtag and feel engage with hashtag. However, comparing by gender, the study found that male tourists has more engagement in using hashtag during their trip more than female respondents. Thus, it can be indicated that gender has a relationship with Instagram hashtag engagement.

There are some recommendations for researchers and practitioners who are interested on Instagram utilization in tourism perspective. First, people may use hashtag to search for information about tourist attractions. The tourism industry needs to encourage travelers to provide hashtag during the time they post. Moreover, tourism organizations can encourage travelers who are in searching stage to use proper hashtag to search for information. Second, at present, there are many tourists using Instagram hashtag to find travel attractions or review and promote the travel attraction, so the tourism industry should pay attention to Instagram hashtag and adopt information from this function to improve their services. Third, this research utilized descriptive analysis to understand travelers' Instagram and hashtag usage behavior. This research can be adopted as a base knowledge for future studies who aim to understand more about reasons behind these behaviors. For doing this research, researchers can adopt in-depth interview with the tourists who use or do not use hashtag for the tourism to bring the data for analysis.

Although this research has reached the interesting results, there are some limitation. First, data collection collected from online questionnaire only. These questionnaires are analyzed using quantitative research analysis. Although this research can provide how people utilize Instagram and hashtag, reasons behind these behaviors still be in questions. Future scholars may draw more research to understand grounded reasons through qualitative research methods such as focus group, or interview. Second, this research focuses on tourism hashtag which be one part of Instagram application only. Other features in the application such as check-in or IG story are not counted in the research. Future research can be done to analyzed usage behavior of other features in order to understand how tourists utilize Instagram as a whole.

## 8. References

- Bolton, R. N., Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., ... & Solnet, D. (2013). Understanding Generation Y and their use of social media: a review and research agenda. *Journal of service management*, 24(3), 245-267.
- Cao, B. L. (2011). Social media: Definition, history of development, features and future– The ambiguous cognition of social media, *Journal of Hunan Radio and Television University*, 47(3), 65–69.
- Deelers, S. & Ruamyoo Y. (2017). Using Social Networking Applications with Instagram through to the success of business in Brand Awareness. *Veridian E-Journal, Silpakorn Universit*, 10(1), 1422-1438.
- Fodness, D. and Murray, B. (1997). Tourist information search. *Annals of Tourism Research*, 24(3), 503-523.
- Giannoulakis, S., & Tsapatsoulis, N. (2016). Evaluating the descriptive power of Instagram hashtags. *Journal of Innovation in Digital Ecosystems*, 3(2), 114-129.
- Rokeach, M. (1973). *The nature of human values*. New York: Free.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- The World Tourism Organization (2018). World Tourism Barometer. Retrieved from <https://marketintelligence.unwto.org/content/unwto-world-tourism-barometer>
- Zhou, X., Wang, M., & Li, D. (2017). From stay to play–A travel planning tool based on crowdsourcing user-generated contents. *Applied geography*, 78, 1-11.



## Examining LINE Official usage in customer decision making perspective

Nathatenee Gebsobut<sup>1</sup>, Lakkana Hengboriboon<sup>2</sup>, Martin Baier<sup>3</sup>, Nat Chaijaroen<sup>4</sup>,  
Praeva Pongpeng<sup>4</sup>, Sirirat Mornkham<sup>4</sup>, and Anyarat Reechaipichitkul<sup>4</sup>

International College  
Khon Kaen University  
Khon Kaen 40002, Thailand  
Email: nathge@kku.ac.th<sup>1</sup>  
Email: lakkhe@kku.ac.th<sup>2</sup>  
Email: martin@kku.ac.th<sup>3</sup>  
Email: kkuic@kku.ac.th<sup>4</sup>

### Abstract

LINE Official is popular among Thai users because it is a platform for communicating between sellers and buyers more comfortably. This paper examined the LINE Official usage in a customer decision-making perspective. The results show that ease of use, usefulness, and critical mass are important when thinking of LINE Official. Perceived ease of use is the most influential, based on the agreement of most samples in age and employment. Hence, the recommendation from these results is LINE Official should focus on the ease of use feature, in order to maintain the current performance which is already rather good, and also raise the outcome of gaining new customers from the features that are able to fulfill their demands and satisfaction.

**Keywords:** LINE Official; Connectivity; Ease of use; Critical mass; Subjective norm

### 1. Introduction

Social networks change the way people communicate in businesses with their consumers. In the present, throughout business transactions of products or services process, an electronic network plays a big role in the busy lifestyle of people. While shopping, they want it to be easy and convenient, and e-commerce is able to fulfill these desires. It cannot be denied that “Social Media” has an influence on daily life throughout almost 24 hours from waking up until to going to sleep. The increase of smartphone users will directly affect the increase in number of social media users. Therefore, the number of people who do online business or e-commerce tend to be larger than the past. Brand products and services perceive that social media is rapidly growing and it is an effective channel to reach customers. As a consequence, they have assigned social media as a part of marketing strategy and sales.

LINE is one of the most popular instant messenger application in Thailand. Not only with real-time messaging, but it also provides various free functions such as free voice and video calls (Meredith, 2018) furthermore, group calls can be used to communicate as a group meeting. Not long ago, LINE launched a new service named LINE Official, with a specific service purpose to assist businesses to have direct communication with their customers through the LINE application. This service has more features and benefits than general LINE. For a large company, LINE Official can represent a company’s image and can be used to promote and increase sales for business. Line has steadily increased its influence on the routine life of people, so business grabs this opportunity to directly sell the product or service to the end customer by itself. And when the sellers are thinking about similar things, to attract people to become their customer is essential. When people have many choices, any factors about the sellers may influence their decision making. By utilizing the potential of LINE Official correctly, this can facilitate the seller to provide a sales service to the customer.

## 2. Research Objectives

Thus, this research emphasizes on defining the efficiency factors about the behavior of using LINE that would be useful for the seller and the way to elevate the quality of the features of LINE Official to be able to respond to the desire of both seller and buyer as much as possible.

## 3. Literature Review

Technology Acceptance Model (TAM) was developed in the 1980's (Holden & Karsh, 2010) and it is one of the most popular research models, and used as an indicator the success of the use of technology. TAM has been widely studied and applied to a various set of technologies and users in order to predict the use and technology acceptance of information systems and usage on the job of individual users. In the TAM model, it includes two core structures which are the factors affecting the use and technology acceptance; Perceived Usefulness and Perceived Ease of Use. To examine LINE Official usage in a customer decision making perspective, this research selected TAM to be the foundation of the study by analyzing it with the nature of E-commerce which is the core objective of LINE Official.

The purpose of E-commerce is to reduce the expense of communicating with customers and increase the efficiency in each business. E-commerce can facilitate the business by simply communicating with consumers around the world at any time that they want, saving cost, by printing catalogs to show consumers and setting up a booth for promoting the product. Nowadays we have many alternatives to communicate and purchase products online by using social networking such as websites, Facebook, Instagram, and currently the most popular one is LINE Official. It is a business channel to communicate with consumers easier after consumers are added to their LINE Official. They will get information, and any activity from the company that the company sends once, every consumer will receive that information at the same time.

Connectivity (CN) is the circumstance of being connected or interconnected. Social networks are the platforms for communication, and discussion with each other (Park & Reber, 2008). For communication, social networks have an influence by functionality and incident (Guillory & Sundar, 2008). Social networks also can participate in the communication with a website and be changed by the user (Bruning, Dials, & Shirka, 2008; Sundar & Kim, 2005).

Perceived Ease of Use (PEOU) is identified by people expecting to have freedom and ease while using a system (Davis, 1989). To interpret, such system used would be able to assist a user to operate or manage things easier. This theory of least effort can extend to predict that those who use social networks, particularly LINE Official, will be more satisfied from the least amount of an effort to learn a qualification to use applications and social networks that relate to activities performance (Rauniar et al., 2014), and also communicating in business. The essential aspect of PEOU is that the degree of modernization is acquired so not to be cumbersome to understand and execute (Rogers, 1962; Zeithaml, 2000). In the context of social networks, the person that uses social networks can evaluate the site based on an easier way to use and an efficient way to help them to achieve their social networks that link to a need.

Behavioral Intention (BI) is a recognition of behaviors that happen from previous actions and are predictable in each person (Ajzen I., 2002). It is the basis of the attitude from the behaviors, subjective norms, and perceived behavioral controls, with each prediction that weighs the importance between behavior and interest in each person. The BI of using social networks is volunteer knowledge, and understanding about the willingness of social media users. For instance, the volunteer for connecting with businesses in LINE Official that can help the business communicate with their customer easier. The person who uses social media is to have experience in developing the belief of PU from activities (Rauniar et al., 2014).

Utility (UT), in the absence of obvious economic incentives, there are two significant types of utility that may arouse social media users; intrinsic utility and image-related utility (Toubia & Stephen, 2013). The intrinsic utility is when the users are receiving straight utility from posting or sharing content. It induces the activating of an activity for intrinsic fulfillments instead of for detachable consequence (Ryan & Deci, 2000). Image-related utility, conversely, is when the recognition of others will stimulate the users. It is also related to the status of seeking or influence motivation (Fershtman & Gandal, 2007; Lampel & Bhalla,

2007). Both Intrinsic utility and Image-related utility are the motivations that are realistic and probable for people to conduct content in social media (Toubia & Stephen, 2013).

Perceived Usefulness (PU) is defined as the degree that an individual believes that using such a system would advance their job performance (Davis, 1989). Such a system when utilized, would be helpful for the operation or management of the users. PU shows the beneficial outcome derived from the characteristics of a particular system being utilized (Gutman, 1982). Each Social media provides main services. Likewise, it offers many different kinds of function to increase the value for its users (Rauniar et al., 2014). For example, Line is for instant communication. And the users believe that using social media would help them to meet their goals.

Critical Mass (CM) of social media users is defined as the level of the association of individuals that matter greatest in a user’s social networking system (Rauniar et al., 2014). Social media users are often communicating with those individuals who are now a part of their broadened offline social network group. Thereby, the individuals who are in the online social network users will be closer (Rauniar et al., 2014). In summary, it can be noted that critical mass is an important factor for new technology acceptance (Lou, Luo, & Strong, 2000).

Subjective Norm (SN) is defined as the recognition of an individual when most people who are considered as important referents to him or her reflect that he or she should or should not do a behavior (Fishbein & Ajzen, 1975), which shows that those people are able to influence him or her. The subjective norms, as explicitly explained in the theory of reasoned action (Ajzen & Fishbein, 1980) and theory of planned behavior (Ajzen I., 1988), relate to a form of injunctive norms.

#### 4. Research Methodology

This research was collected from a survey of 350 people in Thailand during October 2018, by using a method of sampling from a population. To calculate the sample size, the most acceptable way of determination is ten samples, then multiply by one variable (Hair et al., 2010). Our online survey was gathered from people in Thailand to respond to the survey depending on their experiences during their usual usage of LINE Official. For the questionnaire, we separated the audience by diverse incomes and their status on LINE Official. Questionnaires were classified into four sections; demographics, use of social networks, use of LINE Official, and opinions on using LINE Official. The data analysis tool is SPSS. After the data from 54 pilots were collected, the SPSS program was used to calculate the pilot test to find Cronbach’s alpha to measure the internal consistency and reliability of the scales. From the information of Table 1, the measurement scale shows the Cronbach’s alpha of 0.940, which is higher than the standard of 0.7 (Wang, Zhang, Yu, & Hu, 2018). Hence, the data has a suitable internal consistency and reliability.

**Table 1:** Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.940	.949	32

#### 5. Results

Table 2 shows the analysis result of demographic information. Table 3 shows actual behavior information of using social networks, and actual behavior information of using LINE Official of the samples.

**Table 2:** The demographic composition of the samples

Variable	Categories	Frequency	Percent (%)
Age	11-20	6	1.7
	21-30	101	28.9
	31-40	131	37.4
	41-50	83	23.7
	51 or above	29	8.3
Employment	Not employed	50	14.3
	Part-time	27	7.7

	Full-time	273	78.0
<b>Total</b>		350	100.0

From Table 2, the results include age and employment. For age, most of the samples are 31-40 years old (37.4%), followed by 21-30 years old, 41-50 years old, 51 years old or above, and 11-20 years old, respectively. For employment, most of the samples are employed for full-time (78%), followed by not employed, and part-time, respectively.

**Table 3:** Frequency and percentage of using social networks behavior of the samples

Variable	Categories	Frequency	Percent (%)
Frequency of using LINE	Less than 30 minutes/day	26	7.4
	About 30 minutes - 1 hour/day	58	16.6
	About 1 hour - 1 hour 30 minutes/day	45	12.9
	About 1 hour 30 minutes - 2 hours/day	46	13.1
	More than 2 hours/day	175	50.0
Frequency of using other social networks	Less than 30 minutes/day	24	6.9
	About 30 minutes - 1 hour/day	58	16.6
	About 1 hour - 1 hour 30 minutes/day	44	12.6
	About 1 hour 30 minutes - 2 hours/day	53	15.1
	More than 2 hours/day	171	48.9
<b>Total</b>		350	100.0

From Table 3, the results illustrate frequency of using LINE and frequency of using other social networks. For frequency of using LINE, most of the samples use LINE for more than 2 hours/day (50%), followed by about 30 minutes - 1 hour/day, about 1 hour 30 minutes - 2 hours/day, about 1 hour - 1 hour 30 minutes/day, and less than 30 minutes/day, respectively. For a number of other used social networks, most of the samples use 2 other social networks (45.1%), followed by 1 other social network, 3 other social networks, 4 other social networks, and 6 other social networks, respectively. For the frequency of using other social networks, most of the samples use other social networks for more than 2 hours/day (48.9%), followed by about 30 minutes - 1 hour/day, about 1 hour 30 minutes - 2 hours/day, about 1 hour - 1 hour 30 minutes/day, and less than 30 minutes/day, respectively.

**Table 4:** Frequency and percentage of using LINE Official behavior of the samples

Variable	Categories	Frequency	Percent (%)
Number of LINE Official as a contact	0-9	126	36.0
	10-19	74	21.1
	20-29	40	11.4
	30-39	16	4.6
	40-49	7	2.0
	50 or above	87	24.9
Frequency of making a transaction with LINE Official	0-2 times/month	244	69.7
	3-5 times/month	60	17.1
	6-8 times/month	18	5.1
	9-11 times/month	6	1.7
	12 times/month or more	22	6.3
<b>Total</b>		350	100.0

From Table 4, the results show number of LINE Official as a contact and frequency of making a transaction with LINE Official. For a number of LINE Official as a contact, most of the samples have 0-9 contacts (36%), followed by 50 contacts or above, 10-19 contacts, 20-29 contacts, 30-39 contacts, and 40-49

contacts, respectively. For frequency of making a transaction with LINE Official, most of the samples make a transaction with LINE Official for 0-2 times/month (69.7%), followed by 3-5 times/month, 12 times/month, 6-8 times/month, and 9-11 times/month, respectively.

The analysis analyzed the overall agreement and agreement on each factor include Connectivity, Ease of use, Utility, Usefulness, Critical mass, Subjective norm, and Behavioral intention, by using following criteria to analyze and interpret the information;

Average score 4.50 – 5.00	Specified for the criteria of	Totally agree
Average score 3.50 – 4.49	Specified for the criteria of	Rather agree
Average score 2.50 – 3.49	Specified for the criteria of	No idea
Average score 1.50 – 2.49	Specified for the criteria of	Rather disagree
Average score 1.00 – 1.49	Specified for the criteria of	Totally disagree

**Table 5:** Overall Mean and Standard Deviation of agreement from using LINE Official

Factor	Mean	S.D.
Overall agreement	3.85	0.54
Connectivity	3.88	0.66
Perceived ease of use	4.07	0.65
Utility	3.88	0.71
Perceived usefulness	3.90	0.61
Critical mass	3.90	0.69
Subjective norm	3.60	0.82
Behavioral intention	3.74	0.70

From Table 5, the results of overall agreement on factors for using LINE Official to make a transaction is rather agreeing, with the average score of 3.85. For agreement on each factor, the average score is between 3.60 and 4.07.

**Table 6:** Mean and Standard Deviation of agreement from using LINE Official classified by age

Factor	11-20		21-30		31-40		41-50		51 or above	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Overall agreement	4.06	0.83	3.80	0.54	3.88	0.52	3.87	0.55	3.78	0.48
Connectivity	4.00	1.10	3.84	0.67	3.92	0.65	3.88	0.64	3.74	0.64
Perceived ease of use	4.28	0.85	4.09	0.66	4.10	0.61	4.03	0.68	3.99	0.73
Utility	3.89	1.11	3.85	0.75	3.88	0.72	3.93	0.65	3.82	0.55
Perceived usefulness	4.39	0.80	3.81	0.66	3.90	0.58	3.97	0.59	3.91	0.53
Critical mass	3.94	0.85	3.85	0.67	3.90	0.69	3.98	0.72	3.87	0.58
Subjective norm	4.06	0.68	3.60	0.76	3.64	0.81	3.53	0.87	3.46	0.97
Behavioral intention	3.89	1.00	3.58	0.74	3.83	0.67	3.79	0.70	3.66	0.63

Table 6 shows results of agreement on factors for using LINE Official to make a transaction classified by age. Respondents in 11-20 years old samples' overall agreement on factors for using LINE Official to make a transaction is rather agreeing, with the average score of 4.06. For agreement on each factor, the average score is between 3.89 and 4.39. Respondents in 21-30 years old samples' overall agreement on factors for using LINE Official to make a transaction is rather agreeing, with the average score of 3.80. For agreement on each factor, the average score is between 3.58 and 4.09. Respondents in 31-40 years old samples' overall agreement on factors for using LINE Official to make a transaction is rather agreeing, with the average score of 3.88. For agreement on each factor, the average score is between 3.64 and 4.10. Respondents in 41-50 years old samples' overall agreement on factors for using LINE Official to make a transaction is rather agreeing, with the average score of 3.87. For agreement on each factor, the average score is between 3.53 and 4.03. Respondents in 51 years old or above samples' overall agreement

on factors for using LINE Official to make a transaction is rather agreeing, with the average score of 3.78. For agreement on each factor, the average score is between 3.46 and 3.99.

**Table 7:** Mean and Standard Deviation of agreement from using LINE Official classified by employment

Factor	Not employed		Part-time		Full-time	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Overall agreement	3.75	0.49	4.01	0.53	3.85	0.54
Connectivity	3.71	0.65	4.11	0.66	3.88	0.66
Perceived Ease of use	3.97	0.73	4.12	0.61	4.08	0.64
Utility	3.82	0.75	3.99	0.78	3.88	0.69
Perceived usefulness	3.85	0.66	4.06	0.53	3.89	0.61
Critical mass	3.75	0.61	4.14	0.54	3.91	0.71
Subjective norm	3.59	0.65	3.85	0.78	3.57	0.85
Behavioral intention	3.55	0.62	3.78	0.65	3.77	0.72

Table 7 shows results of agreement on factors for using LINE Official to make a transaction classified by employment. Not employed samples' overall agreement on factors for using LINE Official to make a transaction is rather agreeing, with the average score of 3.75. For agreement on each factor, the average score is between 3.55 and 3.97. Part-time samples' overall agreement on factors for using LINE Official to make a transaction is rather agreeing, with the average score of 4.01. For agreement on each factor, the average score is between 3.78 and 4.14. Full-time samples' overall agreement on factors for using LINE Official to make a transaction is rather agreeing, with the average score of 3.85. For agreement on each factor, the average score is between 3.57 and 4.28.

## 6. Discussion and Conclusion

The aim of this study was to examine the efficient factors about customer decision making perspectives in using LINE Official to make a transaction between two main variables; age, and employment. In this study, we have seven factors including connectivity, ease of use, behavioral intention, actual behavior, utility, usefulness, critical mass, and subjective norms. This study reveals that ease of use, usefulness, and critical mass play an important role in using LINE Official. In term of age, almost every range of age-rated perceived ease of use as the most affecting factors why they decided to use LINE Official. While 11-20 years old rated perceived usefulness as the most affecting factors that they decided to use LINE Official. When classified by employment, not employed and full-time rated "ease of use" as the most affecting factor why they decided to use LINE Official. While part-time, rated "critical mass" as the most affecting factor why they decided to use LINE Official. Moving on forward, based on data generated from the research, LINE Official should focus on their features about ease of use, usefulness, and critical mass to fulfill the demand and satisfaction of the customer, especially the ease of use, in order to guide the company towards success. This particular step will improve the efficiency of LINE Official's features, as well as ensuring that the potential customer is satisfied.

Overall, when a feature is adopted, it is of the ultimate importance to create a proper marketing campaign, especially spreading information how to use the new adaptation feature in the utilized method, due to the fact that there are not a minority of people who are familiar with the old features. Certainly, this will not only improve the brand awareness of customers but will ensure that they can gain new customers from those more effective features. To summarize, LINE Official is currently having a relatively good satisfaction from the customer from the part of making a transaction, and it can be improved as implement above recommendations, the result will not only maintain the current customer's satisfaction but will guide the company towards the new customer, beneficial outcomes.

## 8. References

- Ajzen, I. (1988). *Attitudes, personality, and behavior*. Chicago: Dorsey.
- Ajzen, I. (2002). Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior. *Journal of Applied Social Psychology*, 32(4), 665–683.
- Ajzen, I., & Fishbein, M. (1980). *Understanding Attitude and Predicting Social Behavior*. Prentice-Hall, Edgewood Cliffs, NJ.
- Bruning, S. D., Dials, M., & Shirka, A. (2008). Using dialogue to build organization–public relationships, engage publics, and positively affect organizational outcomes. *Public Relations Review*, 34(1), 25-31.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
- Fershtman, C., & Gandal, N. (2007). Open source software: Motivation and restrictive licensing. *International Economics and Economic Policy*, 4(2), 209-225.
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA, Addison Wesley.
- Guillory, J., & Sundar, S. S. (2008, May). Can interactivity in corporate websites influence public perceptions of organizations. In *annual conference of the International Communication Association, Montreal*.
- Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of marketing*, 46(2), 60-72.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: a global perspective*. Upper Saddle, N.J., US: Pearson Education.
- Holden, R. J., & Karsh, B. T. (2010). The technology acceptance model: its past and its future in health care. *Journal of biomedical informatics*, 43(1), 159-172.
- Lampel, J., & Bhalla, A. (2007). The role of status seeking in online communities: Giving the gift of experience. *Journal of computer-mediated communication*, 12(2), 434-455.
- Lou, H., Luo, W., & Strong, D. (2000). Perceived critical mass effect on groupware acceptance. *European journal of information systems*, 9(2), 91-103.
- Meredith, D. (2018, June). Exploring the Influential Factors in Perceived Value of LINE: Enjoyment of LINE Activity, Perceived Risk, and Privacy Concern of LINE Users in Bangkok. In *Proceedings of International Academic Conferences* (No. 7209464). International Institute of Social and Economic Sciences.
- Park, H., & Reber, B. H. (2008). Relationship building and the use of Web sites: How Fortune 500 corporations use their Web sites to build relationships. *Public Relations Review*, 34(4), 409-411.
- Rauniar, R., Rawski, G., Yang, J., & Johnson, B. (2014). Technology acceptance model (TAM) and social media usage: an empirical study on Facebook. *Journal of Enterprise Information Management*, 27(1), 6-30.
- Reed, D. P. (1999). *Weapon of math destruction*. Spring.
- Rogers, E. M. (1962). *Diffusion of innovations*. New York: Free Press of Glencoe.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, 25(1), 54-67.
- Sundar, S. S., & Kim, J. (2005). Interactivity and persuasion: Influencing attitudes with information and involvement. *Journal of interactive advertising*, 5(2), 5-18.
- Toubia, O., & Stephen, A. T. (2013). Intrinsic vs. image-related utility in social media: Why do people contribute content to twitter?. *Marketing Science*, 32(3), 368-392.
- Wang, C., Zhang, J., Yu, P., & Hu, H. (2018). The theory of planned behavior as a model for understanding tourists' responsible environmental behaviors: The moderating role of environmental interpretations. *Journal of cleaner production*, 194, 425-434.
- Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: what we know and what we need to learn. *Journal of the academy of marketing science*, 28(1), 67-85.





## **An Assessment Rubric for Authorship Contribution: Fair Authorship Allocation, Documentation, and Evaluation**

**Rungnapha Khamung<sup>1</sup> and Po Siu Hsu<sup>2</sup>**

International Hospitality and Tourism Management<sup>1</sup>  
Burapha University International College  
Chonburi 20131, Thailand  
Email: [rungnaphak@go.buu.ac.th](mailto:rungnaphak@go.buu.ac.th)

Landscape Architecture Program<sup>2</sup>  
Oklahoma State University  
Stillwater, OK 74078, USA  
Email: [Paul.hsu@okstate.edu](mailto:Paul.hsu@okstate.edu)

### **Abstract**

Since researchers depend on their publication achievements for their career advancement, it becomes evident that the fair allocation of authorship is a critical factor to mitigate potential conflict among co-authors. The proposed authorship assessment rubric would encourage in-progress communication, and maintain the ethical standards of authorship among contributors. This paper classified the authorship into several steps of accountability and their related activities as the fundamental elements for authorship allocation, documentation, and evaluation. This study demonstrated two possible outcomes of authorship allocation based on three authors' input in a multidisciplinary teamwork and publication circumstances. The rubric recorded authors' contributing activities and ratings of involvement, which provided the fundamental data for the authors, the publishers, and the administrators to perform authorship evaluation and set the authors' byline position. This paper advocates the fair allocation of authorship to counter the long-term effect of multidisciplinary research collaboration and to accredit the authorship to the rightful authors with no bias.

**Keywords:** Authorship; Author Contribution; Author Byline

### **1. Introduction**

Authorship is the process of creating a piece of art, music, or writing, hence the creator is the authentic artist, composer, or the author. Teachers, researchers, or scientists are under pressure to publish. According to Clapham (2005, p. 390), publications are knowledge “assimilated by colleagues and leads to more research: hypotheses are modified, rebutted, or confirmed, new paradigms are developed or old ones discarded”. The publication provides an author the credential of authorship, which is an essential component for tenure, promotion, and recruitment of teachers in the academic world (Kwan, 2010; Bradigan and Mularski, 1996). It is apparent that the motive for publication to disseminate results has become subordinate to the necessity of career advancement (Barker, 2002). Without hesitation, the author of a paper with a single authorship should receive the full credit of a publication. What if there are more than two authors contributing to an article, how do they decide who should be the first author, what percentage of credit each author should receive, and how should the institution evaluate the author's accomplishment?

The convenience of information technology facilitates easy collaboration among researchers, teachers, and international institutions from a wide domain of a geographical region. In a globalizing society, research collaboration is increasingly important for scientists due to the need to share ideas and validate scientific findings with colleagues and the need to assemble a solid team to put together an application for research funding (Iglič et al., 2017). Collaboration among researchers would benefit the exchange of ideas and assimilate research findings with different skill sets; however, it adds a long list of authors at the byline. There are confusions as to who has contributed what, who should deserve the credits of first authorship, and who may have misused the authorship. The first author is the most noticeable; therefore, most people consider this

position as the most prestigious position. “The emphasis on being the first author has increased in recent years as many evaluating committees only take the first author and/or the corresponding author into account” (Hu, 2009, p. 2358). This bias often discriminates the teamwork contributed by other co-authors and this action might inadvertently discourage the quality of collaboration.

## 2. Research Objectives

Since researchers depend highly on their publication achievements for their career advancement, it becomes evident that the fair allocation of authorship is an important factor. This paper aims to develop an assessment rubric based on the authors’ activity and involvement in the research and publication processes to assess the allocation of authorship and to calculate their contribution percentage. This would mitigate potential conflict among co-authors, encourage in-progress communication, and maintain the ethical standards of authorship. This would help the junior researchers understand the active ingredients of entering the publishing world and gradually build their success upon the allocated credits. The method of allocating authorship may assist the journal publishers to retain a contribution statement upon article submission and for institutions set a standard as one of the academic committee review criteria when comes to determine the faculty members’ publication accomplishment.

## 3. Literature Review

### 3.1. Authorship Criteria

The ICMJE (2019, p. 2) recommends four criteria for the basis of Authorship, “1. Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND 2. Drafting the work or revising it critically for important intellectual content; AND 3. Final approval of the version to be published; AND 4. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved”. Based on this recommendation, several researchers suggest that authors should meet criteria 1, 2, 3 and 4 to qualify for an authorship (Bates et al., 2004; Barker, 2002; Resnik et al., 2016; WSU, 2018). Bates et al. (2004) recommend that people who obtain funding; provide administrative, technical, or logistic support; sponsor the study; and supervise the research should not pursuit authorship. Instead, it is best to recognize their contributions at the acknowledgment section. Resnik et al. (2016, p. 199) stress that authors should be accountable for “the accuracy or integrity of any part of the work”.

### 3.2. Types of Authorship

Authorship “entails a public acknowledgment of scientific or professional contribution to a disseminated piece of information and includes involvement in various tasks associated with the project” (Council, 2006, p. 1). According to Sauermann and Haeussler (2017), authorship indicates the collective contributions of an author in the breadth of work, the specific types of work, the degree of participation, and the significance of influences of achieving the research goals.

**First author:** Traditionally, the first author contributes most and receives most of the credit; it is the most noticeable position and is considered the most prestigious position (Tschardt et al., 2007).

**Last author:** The last author position is thought-provoking. It may represent the person who is in charge of the research or it may represent simply the boss with prestige and little contribution (Cutas and Shaw, 2015). With this conception, the last author may receive equitable credit as the first author because he or she is “assumed to be the driving force, both intellectually and financially, behind the research” (Tschardt et al., 2007, p. 1).

**Other Position Author:** The positions in between the first and last author are co-authors or other position authors. The ranking order is usually decided by their contribution, alphabetical order, or reverse seniority (Tschardt et al., 2007). Junior researcher with less seniority often rests on this position. Since junior researchers are not as experienced in research and are the mentees of their senior advisors, junior researchers may have less negotiation power to gain their equitable share of credits (Cutas and Shaw, 2015).

**Equal Contribution Author:** Authors put the statement in their papers to declare that each author contributed equally in the process of a paper publication. This designation allows someone to add a first-author publication to his or her curriculum vita (Resnik et al. 2016). Consequently, the author may alter the position of byline in their resume to justify the equal contribution author status if necessary.

**Corresponding Author:** On the surface, the corresponding author may undertake the work of sending paper and receiving feedback. However, Barker (2002) provides a long list of work the corresponding author is expected to do. These duties may include collecting compliance paperwork, assuming the integrity of the paper, and communicating with the other authors about their obligations.

**Honorary Author:** Honorary authorship has frequently been misused for many reasons. Researchers may be under pressure to name the supervisor or a close friend as an author on a paper who has not made a meaningful contribution in the actual process of the paper, the result of this position of authorship is an honorary authorship (Resnik et al., 2016). Bates et al. (2004) suggest that people who obtain funding; provide administrative support; and supervise the research should not be granted honorary authorship.

**Ghost Author:** There are researchers who do not want their names to appear on the byline, therefore, to hide their identity or their financial association with an industry. Ghost authorship, is “uncredited contribution” (Cutas and Shaw, 2015, p. 1326), or, “failing to name someone as an author who has made a significant contribution, is also an ethical concern to hide or obscure financial relationships” (Resnik et al., 2016, p. 201).

### *3.3. Contributing Elements of Paper Writing*

According to Strahan (1982) and Eggert (2011), there is a steady increase in the percentage of multiple authors' articles in the scientific journals. Strahan speculates that publish or perish pressure in academic advancement may have attributed to the increase. However, more published articles allow authors to get more credibility in research collaboration and knowledge partaking among peers in interdisciplinary fields and institutions. Few journals or institutions have a clear policy on how to define the collaborative work contributed within an article, therefore when comes to the time of promotion, distribution of credits or the percentage of contribution, the situation becomes murky (Resnik et al., 2016; Cutas and Shaw, 2015). Even after an institution has implemented authorship rules, most faculty members are not familiar with how it works. Authors are responsible for documenting their contribution based on the obligations and their commitment while they work with their collaborators. The domain of obligation and fulfillment usually not clearly defined (Eggert, 2011). Questioning the other author's contribution may jeopardize the success of the teamwork (Barker, 2002). Researchers who are involved in the research process generally take on various responsibilities such as networking, conceptualization, case investigation, data collection, data analysis, literature search, methodology design, and findings assimilation (Council, 2006). Authoring and publishing the research findings and results would be the final stage of the study. This is a rewarding experience and authorship is the crucial way of recognizing the contributions of all parties involved in a research (Council, 2006).

What are the contributing elements that associate with the authorship? According to Youtie and Bozeman (2014), the dynamic of research collaboration and co-authorship from different university motivate researchers to work together and help to advance an author's career, however, they recommend having an explicit discussion about co-authorship to minimize the likelihoods of a bad collaboration. According to Eggert (2011), researching in multidisciplinary groups is a common phenomenon today and in what manner the team can elect to acknowledge multi-authors for their joint publication becomes a pressing concern. Eggert (2011, p. 1) contests that “discussions about authorship allocation might lead to a serious conflict among coworkers that could even endanger the successful completion of a whole research project”; however, “there does not seem to be any discussion on the issue of ethical standards for authorship in the field”. Eggert advocates the importance of assessment of the authorship based on their job category, which includes the concept, design, supervision, resources, material, data collection, data processing, analysis, interpretation, literature research, writing, and review (Eggert 2011). Winston (1985) develops an evaluation criteria based on the similar activity category to determine the order of authorship in research publication.

### *3.4. Resolving Authorship*

Eggert (2011) and Winston (1985) both supports the application of assessment of the authorship based on authors contributing activity and responsibility category. Their approach very much focus on the integrity and quality of the authorship but do not draw linkage to authorship percentage and author byline positions. Other researchers concern about the validity of author byline positions and misuse of the authorship, do not attempt to connect the attributing factors of authorship back to the authors contributing activity and job responsibility (Cutas and Shaw 2015; Resnik et al. 2016; Tschardt et al. 2007). This study attempts to narrow that gap by introducing the Authorship Allocation Rubric that provides the documentation of contributing

activity, job responsibility, and percentage calculation. Further, the rubric will assist in the determination of author byline positions.

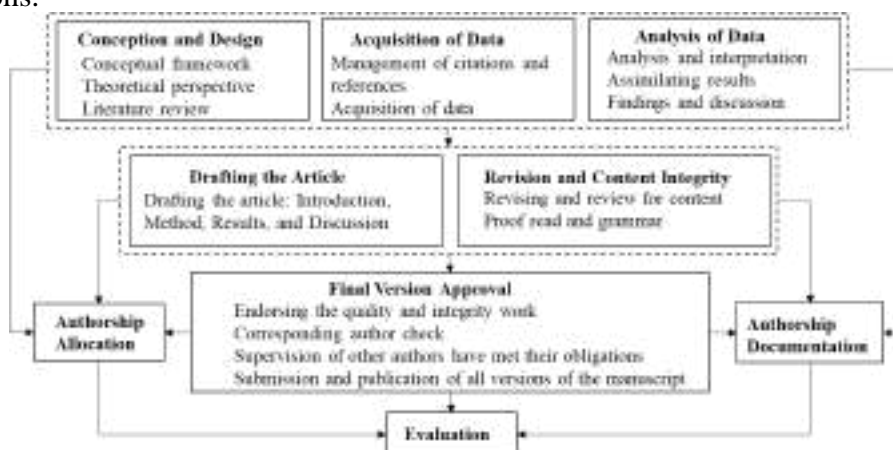


Figure 1: The Conceptual Framework of the Accountability of Authorship and Activity Category

Source: Khamung and Hsu, 2018

Based on the criteria of the authorship and activities discussed, this study subdivided the authorship into several steps of accountability and their related activities in accomplishing a paper-publishing task. These accountability and activities would be the fundamental elements for authorship allocation, documentation, and evaluation (Figure 1).

#### 4. Research Methodology

This study used descriptive and correlational methods to investigate the relationships of authorship accountability and the activities in accomplishing the publication task. In principle, accountability of authorship contains two critical evaluation criteria, contribution activities and ratings of involvement. These two critical evaluation criteria provide the fundamental data for the authors, the publishers, and the administrators to perform authorship evaluation. This proposed rubric can positively communicate the cumulative author achievement and to avoid the confusion of the authorship percentage contribution of a published paper.

##### 4.1. Writing Structure and Activity Category

Most researchers write their papers based on Introduction, Method, Results, and Discussion (IMRAD) writing structure (Nair and Nair, 2014). This indicates the fundamental structure of the scientific paper writing; however, it actually can be expanded to a full list of sections for a research paper. This may include sections of “Title, Authors, Keywords, Abstract, Conclusions, and References. Additionally, some papers include Acknowledgments and Appendices” (Nair and Nair, 2014, p. 13). After a careful consideration, the authors adapted an expanded version of the IMRAD format with additional details. The writing structure of a journal paper may include abstract, introduction, literature review, materials and methods, results, discussion, conclusion, acknowledgment, and reference sections. This paper applied this writing format as the basic component of determining the accountability of authorship in addition to activity category identified earlier by Eggert (2011) and Winston (1985).

##### 4.2. Authorship activities

Authorship activities may include the conceptual framework, theoretical perspective, literature review, tentative paper title, and the other concept and design at the early stage of a paper formation. The activities then shift to methods determination, acquisition of data, analysis and interpretation of data, and assimilating results on a research study. The authors then engage in drafting the article, managing the citations and references, writing up the findings and discussion, and finishing the conclusion and abstract sections. The draft paper will go through multiple steps of revision, review for content accuracy, proofread, grammar check, and final version approval. All authors need to endorse the quality and integrity of work and make sure all authors have met their obligations. At the final stage, authors decide consensually who the corresponding author of the manuscript and metadata submission is, and consequently handles all communication, feedback, and publication processes with the selected journal.

##### 4.3. Ranking Criteria

Following the determination of contributing activities, the next step is to design ranking criteria for the level of contributions each author has been involved in those activities. These ranking criteria ought to properly evaluate the contribution involvement and stay flexible enough for each author to self-assess the level of authorship contribution. The logical approach is to rank the degree of participation, quality of performance, efficiency of input, and significance to each activity of each author during the construct of the paper. To keep the assessment process simple and easy to negotiate among the authors, this study chose to use numeric ratings of 0 to 3 as the performance indicators, where 0=None, 1=Minor, 2=Medium, and 3=Major. The authors involved can summarize these ratings for percentage calculation.

## 5. Results and Discussion

The accountability of each author for his or her specific contribution is qualitative and quantitative as well. It is not an easy task to attribute how much credit to each author. An author who came up with an original concept or innovative methodology may have an equivalent value of another co-author's ability to perform complex statistical analysis or intensive literature search to discover the gap of a project focus. This study designed a rubric to document the allocation of authorship and calculation of contribution percentage based on their activity category. Authors in charge can discuss with their peers and check off their contribution to each specific activity category with an open mindset. The weighting of each activity is set at 1 for both examples, however, authors are free to set the weightings according to their situation. Authors are supposed to present their specific contribution and deliberate among themselves for desired allocation of credits with confirmation from each other. It is an open negotiation system with transparent input before, during and after the publication is completed. The next subsection explains the detail of allocation steps.

### 5.1. Authorship Allocation Rubric

Authorship in a multi-disciplinary publication is a dynamic teamwork; it may entail different stages of conception, design, theoretical innovation, data collection, analysis, synthesis, writing, and integrity checking. It would be impossible to demonstrate all scenarios of authorship involved in a multi-authors publication. This study applied two scenarios of the authorship allocation as the empirical evaluation cases, which depicted two actual cases transpired at the authors' universities. The following two scenarios as mentioned would demonstrate the outcomes of authorship allocation based on three authors' input. Scenario 1 with the author A rated 32 points in its activity category and thus received 42% of the authorship. Consequentially, the author B and C receive 32% and 26% of their authorship (Table 1). Scenario 2 with the author E rated 43 points in its activity category and thus received 86% of the authorship. Consequentially, the author F and G receive 8% and 6% of their authorship (Table 2).

Table 1: Authorship Allocation Rubric for Three Authors A, B, and C.

Activity Category	Weight	Person in Charge		
		Author A	Author B	Author C
Ratings (0=None, 1=Minor, 2=Medium, 3=Major)				
Conceptual framework	1	3	1	0
Theoretical perspective	1	1	2	0
Literature review	1	3	2	0
Management of citations and references	1	3	2	0
Acquisition of data	1	3	2	2
Analysis and interpretation of data	1	1	1	3
Assimilating results	1	2	2	0
Findings and discussion	1	0	3	3
Drafting the article	1	3	1	0
Revising and review for content	1	3	2	1
Proof read and grammar	1	3	1	0
Final version approval	1	3	1	1

Endorsing the quality and integrity work	1	3	2	1
Corresponding authors for the metadata and content of the paper	1	0	0	3
Supervision of other authors have met their obligations	1	1	2	3
Submission and publication of all versions of the manuscript	1	0	0	3
Summation		32	24	20
Percentage calculation		42%	32%	26%

Source: Khamung and Hsu, 2018

Scenario 1 is a typical combination of multidisciplinary teamwork with an almost equal contribution. The author A is an architect and well versed in writing, the author B is a professor in tourism management who is skilled in management of literature search and citation management, while the author C is an artist who conducted the survey, and analyzed the data. According to McDonald et al. (2010), the number of appearances of multi-authors contribution in the journal articles continues to increase over time. They conclude that the increased trend of authorship attributes little to undeserving authorship. This finding further reinforces this paper's objective that the fair allocation of authorship and contribution is the correct approach to counter the long-term effect of multi-disciplinary research collaboration and its involvement in proper accreditation of authorship to the rightful authors with no bias to their seniority.

Table 2: Authorship Allocation Rubric for Three Authors E, F, and G.

Activity Category	Weight	Person in Charge		
		Author E	Author F	Author G
Ratings (0=None, 1=Minor, 2=Medium, 3=Major)				
Conceptual framework	1	3	0	0
Theoretical perspective	1	3	0	0
Literature review	1	3	0	0
Management of citations and references	1	3	0	0
Acquisition of data	1	3	0	0
Analysis and interpretation of data	1	3	0	0
Assimilating results	1	3	0	0
Findings and discussion	1	3	0	0
Drafting the article	1	3	0	0
Revising and review for content	1	2	1	1
Proof read and grammar	1	2	1	1
Final version approval	1	3	1	1
Endorsing the quality and integrity work	1	3	0	0
Corresponding authors for the metadata and content of the paper	1	3	0	0
Supervision of other authors have met their obligations	1	0	1	0
Submission and publication of all versions of the manuscript	1	3	0	0
Summation		43	4	3
Percentage calculation		86%	8%	6%

Source: Khamung and Hsu, 2018

Scenario 2 is more or less similar to a graduate assistant or a junior faculty who conducts the most work, but is under the supervision of two senior professors. The junior researchers can follow the activity category to strengthen their commitment in research contribution and gradually build their path to a successful publication. With this allocation process, junior researchers could exert more negotiation power to gain their equitable share of credits (Cutas and Shaw, 2015). This paper investigated the types of authorship and the deficiency of methods to attribute proper credits to authors' contribution. This paper suggests a simple method to determine the author byline positions that allows the institution to evaluate the authors' accomplishment by not only the author position but also their contributing activities and percentage. The proposed methods for a fair allocation of authorship would support the consistent communication among the research team members, which further minimize conflicts among researchers and preserve the ethical standards of authorship.

### 5.2. *Byline Position Determination*

In the first case scenario, the authorship percentage distinguish clearly the ranking of author's byline position. Author A is the first author, author B is the second author, and author C is the third author. Author C is the designated corresponding author as indicated on the rubric. On an article byline, it would show as such: Author A, Author B, Author C\*, where \* denotes the corresponding author. Apparently, author A assumes the First Author position and author C assumes the third author position. What happens if the authorship percentage is equal for all three authors (33%, 33%, and 33%)? In this scenario, three authors can decide whether they would like to claim equal authorship. On an article byline, it would show as such: Author A<sup>1</sup>, Author B<sup>1</sup>, Author C<sup>1\*</sup>. Where <sup>1</sup> denotes equal authorship and \* denotes the corresponding author.

In the second case scenario, the authorship percentage gives a good idea what could be the ranking of author's byline position. Author E is the first author, author F is the second author, and author G is the third author. Author E is the designated corresponding author as indicated on the rubric. On an article byline, it would show as such: Author E\*, Author F, Author G. Where \* denotes the corresponding author. Apparently, author E assumes the First Author position, author G assumes the last author position, and author F assumes the other position. Incidentally, in this case, author G falls into the status of Honorary Author or Last Author. This study does not determine what the cutoff percentage is, and when to disqualify one as an author. Based on our rubric calculation, 5% or below is a reasonable cutoff point since this author's contribution is minimum.

### 5.3. *Strategies for Execution*

Authorship is an ongoing process, it started at the time when authors conceive the research idea, and it will endure multifaceted development of data collection, literature research, theory, drafting, plagiarism check, submission, and publication. This study devises strategies for a fair allocation of authorship while keeping the cohesive communication among the authors.

1. **Contributors' list:** Before the research starts, the multi-disciplinary team needs to define each participant's responsibility and inquire the willingness of each team member's interest in authorship. The team needs to build a contributors' list.

2. **Document the contribution:** The research team may use the proposed allocation rubric to document their activity category and degree of contribution. Keep this documentation process transparent and fluid, so that each author is satisfied with his or her entry.

3. **Determine the author byline:** Based on a presumption that any contributor whose contribution falls below 5% may not qualify as an author. All qualified authors should decide their positions in the author byline for publication. The team should identify and recognize other contributors at the acknowledgment section.

4. **Integrity check:** The team should assign first author or the corresponding author as the person who is in charge of plagiarism check, communication, the integrity of the content review, data accuracy assurance, and all correspondence bookkeeping. This author takes responsibility for the entire paper before, during, and after publication.

5. **Disclosure:** The corresponding author needs to submit the authorship statement in the Authorship Allocation Rubric to the submitted journal and related institutions for disclosure. The statement would present the final allocation of authorship percentage and respective contributing activity.

## 6. Conclusion

Researchers have the need to partake inquisitions, corroborate scientific findings with colleagues, and join publication to validate discoveries. This trend helps scientists to share ideas, amass a team for funding solicitation, and apply for career advancement. Authorship is an ongoing process, it starts at the time when authors conceive the research idea, and endures the journey of data collection, literature review, conceptualization, submission, and publication. This study designed a rubric to document the proper allocation of authorship and calculate the contribution percentage based on the actual activity classification. The success of authorship accountability relies on the commitment of journal publishers and institutions to retain this process as a contribution statement for the future authorship assessment. The fair allocation of authorship, proper documentation of contribution percentage and clear process of byline position are appropriate strategies for multi-disciplinary research collaboration.

There is a lack of clear policies among the publishers and institutions on describing the authorship underwritten within an article; the situation becomes murky when researchers apply for distribution of credits or career promotion. This paper suggested a simple method to determine the author's byline position that allows the institution to evaluate the author's accomplishment by not only the author position but also their contributing activities and percentage. The designed rubric and its proposed strategies for a fair allocation provide fair procedures to promote co-authorship, encourage more research collaboration, mitigate potential conflict among co-authors, encourage in-progress communication, and maintain the ethical standards of authorship. This would help the novice researchers understand the active components of entering the publishing arena, progressively build their success upon the allocated credits, and further assist institutions to set a standard for academic committee review criteria.

## 7. References

- Barker, K. (2002, November 8). *Accountability and Authorship*. Retrieved September 25, 2018, from American Association for the Advancement of Science: <http://www.sciencemag.org/careers/2002/11/accountability-and-authorship>
- Bates, T., Anić, A., Marušić, M., & Marušić, A. (2004). Authorship Criteria and Disclosure of Contributions: Comparison of 3 General Medical Journals with Different Author Contribution Forms. *Journal of American Medical Association*, 292(1), 86–88.
- Boyer, S., Ikeda, T., Lefort, M.-C., Malumbres-Olarte, J., & Schmidt, J. M. (2017). Percentage-based Author Contribution Index: A Universal Measure of Author Contribution to Scientific Articles. *Research Integrity and Peer Review*, 2(18), 1–8. doi:10.1186/s41073-017-0042-y
- Council, A. S. (2006). *A Graduate Student's Guide to Determining Authorship Credit and Authorship Order*. Retrieved September 25, 2018, from APA Science: <https://psychology.nd.edu/assets/47976/authorshippaperfinalclinical.pdf>
- Cutas, D., & Shaw, D. (2015). Writers Blocked: On the Wrongs of Research Co-authorship and Some Possible Strategies for Improvement. *Science Engineering Ethics*, 2015(21), 1315–1329. doi:10.1007/s11948-014-9606-0
- Eggert, L. D. (2011). Best Practices for Allocating Appropriate Credit and Responsibility to Authors of Multi-Authored Articles. *Frontier in Psychology*, 2(196), 1–6. doi:10.3389/fpsyg.2011.00196



- Hu, X. (2009). Loads of Special Authorship Functions: Linear Growth in the Percentage of “Equal First Authors” and Corresponding Authors. *Journal of the American Society for Information Science*, 60(11), 2378–2381.
- ICMJE. (2019). *Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals*. Retrieved February 12, 2019, from International Committee of Medical Journal Editors: <http://www.icmje.org/icmje-recommendations.pdf>
- Iglič, H., Doreian, P., Kronegger, L., & Ferligoj, A. (2017). With Whom Do Researchers Collaborate and Why? *Scientometrics*, 112(1), 153–174.
- Kaushik, R. (2013). The “Authorship Index” - A Simple Way to Measure an Author’s Contribution to Literature. *International Journal of Research in Medical Sciences*, 1(1), 1–3.
- McDonald, R. J., Neff, K. L., Rethlefsen, M. L., & Kallmes, D. F. (2010). Effects of Author Contribution Disclosures and Numeric Limitations on Authorship Trends. *Mayo Clinic Proceeding*, 85(10), 920–927.  
doi:10.4065/mcp.2010.0291
- Nair, P. K., & Nair, V. D. (2014). Chapter 2 Organization of a Research Paper: The IMRAD Format. In P. K. Nair, & V. D. Nair, *Scientific Writing and Communication in Agriculture and Natural Resources* (pp. 13-25). Cham, Switzerland: Springer International Publishing. doi:10.1007/978-3-319-03101-9\_2
- Resnik, D. B., Tyler, A. M., Black, J. R., & Kissling, G. (2016). Authorship Policies of Scientific Journals. *Journal of Medical Ethics*, 2015(42), 199–202. doi:10.1136/medethics-2015-103171
- Sauermann, H., & Haeussler, C. (2017). Authorship and Contribution Disclosures. *Science Advances*, 3(11), e1700404. doi:10.1126/sciadv.1700404
- Strahan, R. F. (1982). More on JCP Publication: Single Versus Multiple Authorship. *Journal of Counseling Psychology*, 29(4), 430–431.
- Tscharntke, T., Hochberg, M. E., Rand, T. A., Resh, V. H., & Krauss, J. (2007). Author Sequence and Credit for Contributions in Multi-authored Publications. *PLoS Biology*, 5(1), e18.
- Winston, R. B. (1985). A Suggested Procedure for Determining Order of Authorship in Research Publications. *Journal of Counseling and Development*, 63(8), 515–518.
- WSU. (2018). *Guidelines for Authorship Determination for Manuscripts*. Retrieved August 26, 2018, from Authorship Determination: <https://research.wsu.edu/office-research/policies/authorship/>
- Youtie, J., & Bozeman, B. (2014). Social Dynamics of Research Collaboration: Norms, Practices, and Ethical Issues in Determining Co-authorship Rights. *Scientometrics*, 101(2), 953–962 . doi:10.1007/s11192-014-1391-7



## The Factors in Stimulating Grit: Implication for Education Service Sector

Srimonbhorn Thipsingh<sup>1</sup>, Chutima Virochsaengaroon<sup>2</sup>, Benoit Nadeau<sup>3</sup>  
and Thammasak Senamitr<sup>4</sup>

Khonkaen University International College

Khon Kaen 40002, Thailand

Email: Sirithi@kku.ac.th<sup>1</sup>

Email: Chutvi@kku.ac.th<sup>2</sup>

Email: Benoit@kku.ac.th<sup>3</sup>

Email: Thamse@kku.ac.th<sup>4</sup>

### Abstract

This research investigated the factors that stimulate grit among education personnel to understand how their work effectiveness can be improved. The researcher used the survey method to collect information from five universities in Thailand. The sample size was 500 educational staff. Questionnaire was used as the data collection tool. Data analysis was performed using SPSS program. The results showed that marital status, work experience, ambition, passion and self-regulation positively influence grit; with the effect of .000 correlated at a statistical significance of 0.05. The researcher also used the theory of motivation to derive results from data.

**Keywords:** Passion, Grit, Education Service Sector, Ambition, Self-regulation

### 1. Introduction

Grit refers to passion and perseverance for very long-term goals. This research delved further into grit by investigating how many instructors in KhonKaen University consistently have grit in developing their teaching methods and their demographic backgrounds compared to instructors who have no grit. From that knowledge, the research hope to explain the accurate factors of stimulating grit within the education service sector. The findings will help develop educational personnel in terms of self-regulation, passion, ambition, and perseverance as aspects that are thought to influence grit. The research focused on 5 Northeastern Thailand Universities. Data was collected using the questionnaire method.

The current survey research is helpful for those who are interested in delving more deeply into the concept of grit, as well as ideas about gratification and the growth of mindset, and their potential links to long-term goals and long-term success. The findings stimulate debate and analysis of the possibility and opportunities of increasing the quality of educational personnel and services. This research will also help understand whether or not the respondents' demographic factors - ambition, passion, perseverance and self-regulation - affect grit in any manner. This knowledge is vital in developing factors for stimulating grit among personnel in the education sector.

### 2. Objective

The aim of this study is to provide information that can assist educational personnel, persons providing professional development, and policymakers in the educational sector to develop educational staff and services.

### 3. Literature review

Over the past, scholars have discussed the factors in stimulating grit and the implication of doing so for the education Service Sector. The primary themes in this discussion include self-regulation, passion, grit, ambition and perseverance.

Ambition is a construct referring to the ability to create a personality that is important to one's academic and professional success. Ambition is a personality trait closely linked to career success (Hogan & Holland, 2003). Ambitious people seem to have the ability to compete tasks diligently, strive to achieve goals, and portray greater confidence and mobility (Hansson, Hogan, Johnson, & Schroeder, 1983). People who have aspirations to succeed in life, in terms of higher education, career and net income tend to be ambitious (Van der Heijde & Van der Heijden, 2006). According to the best-known factor models of personality, ambition is a personality construct with important implications for individual differences in education. In Jones et al, the researchers sent questionnaire by e-mail and collected data from more than 1100 participants. Of these, 170 participants were assessed for ambitions based on Hogan and Hogan's (1995) Inventory Personality Hogan (HPI). The aspiration level predicts the degree to which people seem to be capable of leading with higher confidence. The best aspect of ambition predicts that ambitious people seem to be more successful, mobile, and more disciplined (low impulsivity).

Hypothesis 1: Ambition has a positive relationship to the factors of stimulating Grit: Implication for Education Service Sector.

The education competency, general knowledge and teaching knowledge of the instructor are very important in the achievement of educational objectives. Ülger, Yiğittir and Ercan (2014) study used a survey model to identify teachers' ability. The results showed that instructor confidence in individualized instructional abilities is critical to "accepting" the CEC (Character Education Competency) and General Education Competency (GEC). Variables such as gender, type of the instructor who graduated from the type of debauchery they worked on, their students and income levels did not make a significant difference about their abilities. However, the subjects they taught, their attendance to seminars on educational services and readings about the study of teaching characteristics were found to be significant. The recommendations include increasing the number of training opportunities and readings. The study illustrates the importance of high school character beliefs. Educational Capacity Teachers are centered on the "agree" option in the CEC and GEC dimensions. The CEC is higher than the GEC.

Hypothesis 2: Characteristic has a positive relationship to the factors of stimulating Grit: Implication for Education Service Sector

Passion is a promising approach for a better future education. Passion makes individuals to devote themselves fully to activities. It helps them to remain persistent despite obstacles. Ruiz-Alfonso and León (2016, 2017) evaluate their hypothesis using research questions such as; "What variables ignite passion? What do researchers mean by the term "passion"? and "What are the outcomes of passion?" The researchers identified 590 articles in ERIC, 434 in WOS and 238 in PsycINFO. Their search resulted in a total of 1262 articles and then imported all search results to the Mendeley reference manager to begin the screening process. There are three types of goal achievement. First, learning goals, which lead people to focus on personal development. Second, a goal in performance, which leads people to focus on being better than others. Thirds, a goal for avoiding performance, which makes people to avoid feeling worse or incompetent compared to others.

Hypothesis 3: Passion has a positive relationship to the factors of stimulating Grit: Implication for Education Service Sector.

This article explores the impact of perseverance and passion on long-term goals (GRIT) in academic success. Perseverance is a particularly salient factor in explaining educational personnel success. This study helps to clarify the nuanced relationship between passion and grit (via self-regulatory mode) and also reveals a significant positive relationship between grit and educational personnel performance. Specifically, the results indicate that the most relevant psychological explanatory variable is perseverance and long-term passion, often referred to as GRIT ([Duckworth, Peterson, Matthews, & Kelly, 2007](#)). GRIT is used as a predictor.

Hypothesis 4: Perseverance has a positive relationship to the factors of stimulating Grit: Implication for Education Service Sector.

Self-control instruction is a self-created feeling or an idea, the implementation of which is the regulatory system to achieve their goals. The pattern of self-control is found in social cognitive theories based on the work of Bandura (1991). A look at self-control reveal an interaction of individual personalities. The self-control process is divided into three stages according to the cycle: prudence, performance, or volitional control and reflection. There are three phases, with the first phase being where the instructor analyze their teaching tasks. The key role in the process is expressed by belief in the instructor motivation, perceived self-efficacy, goals and interests. The second phase is the actual activities where students control and manage their learning processes i.e. control and observe yourself in the activity. The third phase of self-control occurs after the learning activity is complete and relates to the yield response. The instructor look at teaching experiences, compares results with initial objectives and, for example, to explain success or failure. The authors believe that self-control exists in all human activities, although not yet developed. A successful instructor is different from the less successful ones in terms of the ability to initiate processes without external controls to improve their teaching.

Hypothesis 5: Self-regulation has a positive relationship to the factors of stimulating Grit: Implication for Education Service Sector.

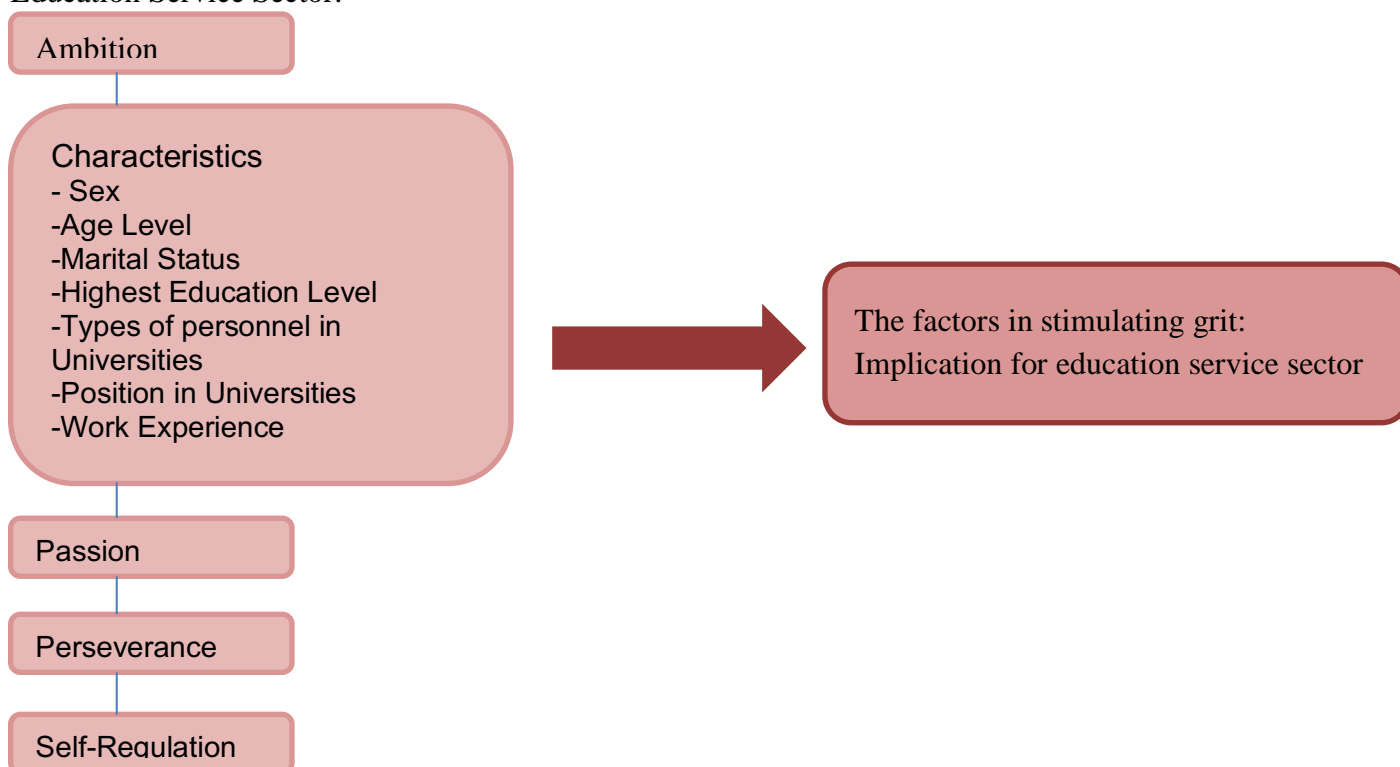


Figure 1: conceptual framework.

## 4. Methodology

In 2017, the number of people working in Government Universities in Thailand was 18,519 people. However, the focus of the current study was on the Universities in the northeastern part of Thailand. A total of 5,527 people participated in this research; 42.39% of the population were from Khonkaen University, 25.35% from Mahasarakham University (including Mahasarakham University Demonstration School), 12.65% from Ubon Ratchathani University, 7.85% from Suranaree University of Technology and 11.76% were from Udonthani Rajabhat University (including Udon Thani Rajabhat University Demonstration School). The research population was around 18,519 people. Thus, the appropriate research sample for this study was at least 377 people. For the purpose of this research, 500 people or rather 10% of 5527 people were involved.

As mentioned earlier, questionnaire method was used as the data collection tools. The researcher administered questionnaire among people working in education service sector online. The researcher obtained questionnaire and opinion from education service personnel. Data collected from the questionnaire was analyzed statistically using SPSS program. The researcher used linear in simple regression of SPSS.

### Reliability Analysis of Questionnaires

Table 1: Cronbach's Alpha of Grit Questionnaires

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.907	10

Table 2: Cronbach's Alpha of Ambition Questionnaires

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.898	10

Table 3: Cronbach's Alpha of Passion Questionnaires

<b>Reliability Statistics</b>	
Cronbach's Alpha <sup>a</sup>	N of Items
.875	7

Table 4: Cronbach's Alpha of Perseverance Questionnaires

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.895	10

## 5. Results

The tables that follows show the distribution of respondents in terms of sex, age, marital status, education level, personnel type, position and work experience. Males comprised 49.6% of the respondents compared to 50.4% for the females.

Table 5: the distribution of respondents

**Sex**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	248	49.6	49.6	49.6
Female	252	50.4	50.4	100.0
Total	500	100.0	100.0	

Table 6: the distribution of respondents: Age

**Age Level**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less than 31 years	127	25.4	25.4	25.4
31-40 years	131	26.2	26.2	51.6
41-50 years	137	27.4	27.4	79.0
More than 50 years	105	21.0	21.0	100.0
Total	500	100.0	100.0	

25.4 percent of the respondents were below 31 years, 26.2% were 31- 40 years old, 27.4% were 41-50 years old and 21% were above 50 years old.

Table 7: the distribution of respondents: Marital status

**Marital status**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single	147	29.4	29.4	29.4
Get married	183	36.6	36.6	66.0
Separated	85	17.0	17.0	83.0
Divorce	49	9.8	9.8	92.8
The spouse died	36	7.2	7.2	100.0
Total	500	100.0	100.0	

In terms in marital status, 29.4% of the respondents were single, 36.6% were married, 17% separated, 9.8% divorce, and for 7.2%, the spouse had died.

Table 9: the distribution of respondents: Education level

**Highest education level**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Bachelor degree	142	28.4	28.4	28.4
Master degree	279	55.8	55.8	84.2
Doctoral degree	79	15.8	15.8	100.0
Total	500	100.0	100.0	

For the highest education level, 28.4% of the respondents had Bachelor degree, 55.8% had Master degree and 15.8% had Doctoral degree.

Table 10: the distribution of respondents: Personnel in universitis

**Types of personnel in universities**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Teacher	345	69.0	69.0	69.0
Not a teacher	155	31.0	31.0	100.0
Total	500	100.0	100.0	

As for the types of personnel in universities, 69% of the respondents were teachers and 31% were non-teachers.

Table 11: the distribution of respondents: Position

		Position			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Teacher	145	29.0	29.0	29.0
	Assistant Professor	102	20.4	20.4	49.4
	Associate Professor	35	7.0	7.0	56.4
	Professor	89	12.6	12.6	69.0
	Other employees	155	31.0	31.0	100.0
	Total	500	100.0	100.0	

While considering respondent position, 29% of the respondents were teachers, 20.4% were assistant professors, 7% were associate professor, 12.6% were professor and 31% were other employees

Table 12: the distribution of respondents: Work experience

		Work experience			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 11 years	243	48.6	48.6	48.6
	11-20 years	176	35.2	35.2	83.8
	21-30 years	35	7.0	7.0	90.8
	More than 30 years	46	9.2	9.2	100.0
	Total	500	100.0	100.0	

For the respondents' work experience, 48.6% of the respondents had worked for less than 11 years. 35.2 percent had worked for 11-20 years, 7% had worked for 21-30 years, and around 9.2% of the respondents had worked for over 30 years

Table 13: Mean of factors



**Statistics**

		Ambition Summary	Passion Summary	Perseverance Summary	Self Regulation Summary	Grt Summary
N	Valid	500	500	500	500	500
	Missing	0	0	0	0	0
Mean		3.12	3.07	3.06	3.08	3.01
Std. Deviation		.579	.404	.584	.471	.476

Table 14: Ambition summary

**Ambition Summary**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not much like me	57	11.4	11.4	11.4
	Somewhat like me	325	65.0	65.0	76.4
	Mostly like me	118	23.6	23.6	100.0
Total		500	100.0	100.0	

In the Ambition summary, 65% of the respondents selected ‘somewhat like me’ (Mean = 3.12). 11.4 percent selected ‘Not much like me’ while 23.6% selected ‘Mostly like me’.

Table 15: Passion summary

**Passion Summary**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not much like me	24	4.8	4.8	4.8
	Somewhat like me	416	83.2	83.2	88.0
	Mostly like me	60	12.0	12.0	100.0
Total		500	100.0	100.0	

For the passion summary, most respondent (83.2%) chose ‘somewhat like me’ (Mean = 3.07). 4.8 percent chose ‘Not much like me’ while 12% chose ‘mostly like me’.

Table 16: Perseverance summary

**Perseverance Summary**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not much like me	72	14.4	14.4	14.4
	Somewhat like me	328	65.6	65.6	80.0
	Mostly like me	100	20.0	20.0	100.0
Total		500	100.0	100.0	

Focusing on perseverance, most respondents (65.6%) selected ‘somewhat like me’ (Mean = 3.06). 14.4 percent of the respondents selected ‘Not much like me’ while 20% selected ‘Mostly like’.

Table 17: Self Regulation summary

**Self Regulation Summary**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Not much like me	36	7.2	7.2	7.2
Somewhat like me	386	77.2	77.2	84.4
Mostly like me	78	15.6	15.6	100.0
Total	500	100.0	100.0	

In self regulation summary, 77.2% of the respondents chose ‘somewhat like me’ (Mean = 3.08). 7.2 percent chose ‘Not much like me’ while 15.6% chose ‘Mostly like me’.

Table 18: Grit summary

**Grit Summary**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Not much like me	54	10.8	10.8	10.8
Somewhat like me	387	77.4	77.4	88.2
Mostly like me	59	11.8	11.8	100.0
Total	500	100.0	100.0	

For the Grit, most respondents (77.4%) chose ‘somewhat like me’ (Mean = 3.01). Those who chose ‘Not much like me’ comprised 10.8% while those who chose ‘Mostly like me’ comprised 11.8% of the respondents.

Table 19 : Table of variables that related to the factors in stimulating grit

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624 <sup>a</sup>	.389	.376	.376

a. Predictors: (Constant), Self Regulation Summary, Work experience, Sex, Perseverance Summary, Ambition Summary, Passion Summary, Age Level, Types of personnel in universities, Marital status, Highest education level, Position

Table 20 : ANOVA results

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.991	11	3.999	28.301	.000 <sup>a</sup>
	Residual	88.959	488	.141		
	Total	112.950	499			

a. Predictors: (Constant), Self Regulation Summary, Work experience, Sex, Perseverance Summary, Ambition Summary, Passion Summary, Age Level, Types of personnel in universities, Marital status, Highest education level, Position  
b. Dependent Variable: Grit Summary

Table 21 : Coefficients results

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.184	.240		4.936	.000
	Sex	.012	.035	.012	.334	.739
	Age Level	.026	.019	.050	1.350	.175
	Marital status	.175	.018	.440	9.800	.000
	Highest education level	-.054	.042	-.075	-1.295	.196
	Types of personnel in universities	-.048	.106	-.046	-.452	.651
	Position	-.059	.032	-.206	-1.679	.061
	Work experience	-.212	.026	-.417	-8.209	.000
	Ambition Summary	.185	.031	.227	6.016	.000
	Passion Summary	.199	.046	.189	4.301	.000
	Perseverance Summary	-.014	.034	-.017	-.411	.681
	Self Regulation Summary	.295	.042	.292	7.085	.000

a. Dependent Variable: Grit Summary

From model summary table, R square = 0.389. The possibility of forecasting grit variable when the independent variables are sex, age level, marital status, highest education level, types of personnel in universities, position, work experience, ambition summary, passion summary, perseverance summary and self-regulation summary is 39%.

From ANOVA table 21, Sig. = 0.000. Some independent variables can be used to forecast grit at a statistically significance level of 0.05. From Coefficients table, Sig = 0.000, only independent variables such as marital status, work experience, ambition summary, passion summary and self-regulation can be used to forecast grit at statistically significance level of 0.05.

From table 19, the regression analysis of characteristic and grit reveals the following;

1. Sex influences grit with an effect of 0.739 hence cannot be used in forecasting grit. The statistical significance is at the level 0.05.
2. Age level influences grit with an effect of 0.175 hence cannot be used in forecasting grit. The statistical significance is at the level 0.05.
3. Marital status positively influence grit with an effect of .000. It correlate with grit significantly at the level 0.05
4. Highest education level influences grit with an effect of 0.196 hence cannot be used in forecasting grit. The statistical significance is at the level 0.05.
5. Types of personnel in universities influences grit with an effect of 0.651 hence cannot be used in forecasting grit. The statistical significance is at the level 0.05.
6. Position in universities influences grit with an effect of 0.061 hence cannot be used in forecasting grit. The statistical significance is at the level 0.05.
7. Work experience positively influence grit with an effect of .000. It correlates with grit significantly at the level 0.05.
8. Ambition positively influences grit with an effect of .000. It correlates with grit significantly at the level 0.05.
9. Passion positively influence grit with an effect of .000. It correlate with grit significantly at the level 0.05.

10. Perseverance influences grit with an effect of 0.681 hence cannot be used in forecasting grit. The statistical significance is at the level 0.05.
11. Self-regulation positively influence grit with an effect of .000. It correlates with grit significantly at the level 0.05.

The following findings can be deduced from Table 22 below:

1. Ambition positively influence grit with an effect of .000. It correlate with grit significantly at the level 0.05.
2. Passion positively influence grit with an effect of .000. It correlate with grit significantly at the level 0.05.
3. Perseverance influences grit with an effect of 0.431 hence cannot be used in forecasting grit. The statistical significance is 0.05.
4. Self-regulation positively influence grit with an effect of .017. It correlate with grit significantly at the level 0.05.

Table22 : Table of variables that related to the factors in stimulating grit

**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	Self Regulation Summary, Perseverance Summaey, Ambition Summary, Passion Summary		Enter

a. All requested variables entered.  
b. Dependent Variable: Grit Summary

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.379 <sup>a</sup>	.144	.137	.442

a. Predictors: (Constant), Self Regulation Summary, Perseverance Summaey, Ambition Summary, Passion Summary

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.239	4	4.060	20.779	.000 <sup>a</sup>
	Residual	96.711	495	.195		
	Total	112.950	499			

a. Predictors: (Constant), Self Regulation Summary, Perseverance Summaey, Ambition Summary, Passion Summary  
b. Dependent Variable: Grit Summary

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.375	.216		6.356	.000
	Ambition Summary	.207	.035	.252	5.926	.000
	Passion Summary	.245	.051	.208	4.796	.000
	Perseverance Summaey	-.028	.035	-.034	-.789	.431
	Self Regulation Summary	.104	.043	.103	2.389	.017

a. Dependent Variable: Grit Summary

## 6. Discussion and Conclusion

**Hypothesis 1:** Ambition has a positive relationship with the factors of stimulating Grit: Implication for Education Service Sector.

From the findings of this research, ambition has a positive relationship with the factors of stimulating Grit: Implication for Education Service Sector. The respondents concurred that ambition is related to the factors of stimulating grit: Implication for education service sector. Ambition was thought of as having a positive influence on the factors of stimulating Grit: Implication for Education Service Sector. Ambition relates with the ‘motive goal orientation’ under ‘relevance’ in the Arcs theory of motivation by Keller (1987,

2009). It was mentioned that goal orientation often involves ambition. When people have ambition, they will be more motivated to learn to be successful. They aim for the goal orientation to help them achieve their work quickly.

Hypothesis 2: Characteristic has a positive relationship with the factors of stimulating Grit: Implication for Education Service Sector.

Our research has shown that characteristic has a positive relationship with the factors of stimulating Grit: Implication for Education Service Sector. Respondents agreed that characteristic information relate to the factors of stimulating grit: Implication for education service sector. Further, the research has shown that characteristic has a positive and negative influence on the factors in stimulating Grit: Implication for Education Service Sector. Characteristic, as a variable, relate with ‘inquiry arousal’ under ‘attention’ in the Arcs theory of motivation by Keller (1987, 2009). It was mentioned that inquiry arousal often involves characteristic because when the people know about the characteristic of themselves well, they have a curiosity. Consequently, they will create problematic situations that can be solved through knowledge seeking and behavior change. In their research, they found that the characteristic of the instructor is important in teaching students. Therefore, marital status and work experience has a positive relationship with the factors of stimulating grit: Implication education service sector.

Hypothesis 3: Passion has a positive relationship with the factors of stimulating Grit: Implication for Education Service Sector.

The current research revealed that passion has a positive relationship with the factors of stimulating Grit: Implication for Education Service Sector. Respondents concur that passion relate to the factors of stimulating grit: Implication for education service sector. Passion has a positive influence on the factors of stimulating Grit: Implication for Education Service Sector. Passion relates with ‘motive matching’ under ‘relevance’ in the Arcs theory of motivation by Keller (1987, 2009). According to the theory, motivation often involves passion for success at a work. Motive matching relates with passion because when we love to do something, we will have the motive to do it well and perfectly. Ruiz-Alfonso and León (2016) found that passion is important for the education personnel because it fosters the development of the education personnel.

Hypothesis 4: Perseverance has a positive relationship with the factors of stimulating Grit: Implication for Education Service Sector.

From our research, it is clear that perseverance has a negative relationship with the factors of stimulating Grit: Implication for Education Service Sector. The respondents agree that perseverance is not related to the factors of stimulating grit: Implication for education service sector. Perseverance has a negative influence on the factors in stimulating Grit: Implication for Education Service Sector. Perseverance relate to the ‘positive consequences’ under ‘satisfaction’ in the Arcs theory of motivation by Keller (1987, 2009). It was mentioned that positive consequences often involve perseverance because when people have the motivation to get reward, bonuses, prizes or any profit, they will have more attendance and patience to work through obstacles to succeed. However, our research found a negative relation where the influence of perseverance on grit with the effect of 0.681 cannot be used to forecast grit. Given the statistical significance at the level 0.05, the researcher will not use perseverance on grit.

Hypothesis5: Self-regulation has a positive relationship with the factors in stimulating Grit: Implication for Education Service Sector.

The current research has revealed that self-regulation has a positive relationship with the factors of stimulating Grit: Implication for Education Service Sector. Again, data analysis show that self-regulation related to the factors of stimulating grit: Implication for education service sector. Self-regulation has a positive influence on the factors of stimulating Grit: Implication for Education Service Sector. Self-regulation, as a variable, relates with ‘personal control’ under ‘confidence’ in the Arcs theory of motivation by Keller (1987, 2009) Self-control can lead to motivation for doing a job. This is in line with the study of Jakešová and Kalenda

(2015). [The results of that research found that motivation is important in the teaching factors. It found that](#) instructors invest time and effort in teaching because achieving good results is important for them.

In this study, the factors of stimulating Grit: implication for Education Service Sector was investigated. The researcher collected information from 5 universities within northeastern Thailand. The sample in this study had to comprise of at least 377 people. Questionnaire method was used to collect opinions from selected personnel in the education service sector. The 54 questions questionnaire probed into 5 factors including ambition, grit, passion, perseverance and self-regulation using positive and negative approaches. The data from the questionnaire was analyzed using SPSS regression process. As for the factors influencing the of stimulating Grit: Implication for Education Service Sector, 5 factors were investigated. Ambition had a mean of 3.12 and a standard deviation of 0.579. Grit had a mean of 3.01 and a standard deviation of 0.476. Passion had a mean of 3.07 and a standard deviation of 0.404. Perseverance had a mean of 3.06 and a standard deviation of 0.584. Finally, self-regulation had a mean of 3.08 and a standard deviation of 0.471.

From the findings of this study, the feedback levels for marital status, work experience, ambition, passion and self-regulation can forecast the level of grit. This information can be used to develop educational personnel. The findings are crucial guideline for setting policies to create grit, hence raise the level of teaching and the knowledge of students. The research findings are relevant for the Ministry of education, as the major players in the development of education in Thailand. Aspects such as ambition, passion and self-regulation influence the level of grit among personnel in the education sector. On the another hand, aspects such as sex, age level, highest education, types of personnel, position in universities and perseverance have less effect on grit for personnel in the education sector. Stakeholders in the education sector should focus more on developing personnel's ambition, passion and self-regulation.

## 7. References

- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational behavior and human decision processes*, 50(2), 248-287.
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. *Journal of personality and social psychology*, 92(6), 1087.
- Hansson, R. O., Hogan, R., Johnson, J. A., & Schroeder, D. (1983). Disentangling Type A behavior: The roles of ambition, insensitivity, and anxiety. *Journal of Research in Personality*, 17(2), 186-197.
- Hogan, R., & Hogan, J. (1995). *Hogan Personality Inventory manual* (2nd ed.). Tulsa, OK: Hogan Assessment Systems.
- Hogan, J., & Holland, B. (2003). Using theory to evaluate personality and job-performance relations: A socioanalytic perspective. *Journal of applied psychology*, 88(1), 100.
- Jakešová, J., & Kalenda, J. (2015). Self-regulated learning: Critical-realistic conceptualization. *Procedia-Social and Behavioral Sciences*, 171, 178-189.
- Keller, J. M. (1987). Development and use of the ARCS model of instructional design. *Journal of instructional development*, 10(3), 2.
- Keller, J. M. (2009). *Motivational design for learning and performance: The ARCS model approach*. Springer Science & Business Media.
- Ruiz-Alfonso, Z., & León, J. (2016). The role of passion in education: A systematic review. *Educational Research Review*, 19, 173-188.
- Ruiz-Alfonso, Z., & León, J. (2017). Passion for math: Relationships between teachers' emphasis on class contents usefulness, motivation and grades. *Contemporary Educational Psychology*, 51, 284-292.

- Ülger, M., Yiğittir, S., & Ercan, O. (2014). Secondary school teachers' beliefs on character education competency. *Procedia-Social and Behavioral Sciences*, 131, 442-449.
- Van der Heijde, C. M., & Van Der Heijden, B. I. (2006). A competence-based and multidimensional operationalization and measurement of employability. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 45(3), 449-476.



**Creating the Identity of being "Nang Show" in Entertainment Business for Tourism : Case Studies of Transgender Women at Cabaret Venue in Mueang Phuket District**

**Pim de Jong<sup>1</sup>, Nicha Tovankasame<sup>2</sup>, Jakraphan Chaopreecha<sup>3</sup>, Teerathorn Lamnaokrut<sup>4</sup>, Nuannuch Khieowan<sup>5</sup>**

Faculty of International Studies<sup>1</sup>  
Prince of Songkla University, Phuket Campus  
80 Moo1, Vitchit Songkram Rd., Kathu, Phuet 83120  
Email: [pim.dj@phuket.psu.ac.th](mailto:pim.dj@phuket.psu.ac.th)

Faculty of International Studies<sup>2</sup>  
Prince of Songkla University, Phuket Campus  
80 Moo1, Vitchit Songkram Rd., Kathu, Phuet 83120  
Email: [Niche.t@phuket.psu.ac.th](mailto:Niche.t@phuket.psu.ac.th)

College of Computing<sup>3</sup>  
Prince of Songkla University, Phuket Campus  
80 Moo1, Vitchit Songkram Rd., Kathu, Phuet 83120  
Email: [jakraphan.c@phuket.psu.ac.th](mailto:jakraphan.c@phuket.psu.ac.th)

Faculty of International Studies<sup>4</sup>  
Prince of Songkla University, Phuket Campus  
80 Moo1, Vitchit Songkram Rd., Kathu, Phuet 83120  
Email: [teerathorn.l@phuket.psu.ac.th](mailto:teerathorn.l@phuket.psu.ac.th)

Faculty of International Studies<sup>5</sup>  
Prince of Songkla University, Phuket Campus  
80 Moo1, Vitchit Songkram Rd., Kathu, Phuet 83120  
Email: [nuannut.k@phuket.psu.ac.th](mailto:nuannut.k@phuket.psu.ac.th)

**Abstract**

This research topic “Creating an identity of being Nang Show in the tourism entertainment business: a case study of a cabaret venue in Mueang Phuket district” is a qualitative research that aims to study the process of becoming Nang Show. The turning point of transgender women entering the career “Nang Show”, including learning how to create their own identity as “Nang Show”, as well as the change in their life after entering the profession “Nang Show”.

For my research, 5 cases of in-depth study are selected by purposive sampling, which is the forefront of the cabaret venue. In-depth Interview and observation were instruments for data collection. The study found that the turning point of being a Nang Show was persuasion from friends. After that, the process of socialization by the trainers and other Nang Show, the senior Nang Show, are considered as significant influences to form the identity of being Nang Show. In addition, learning the value and norm of being Nang Show, as well as becoming Nang Show has been a life changing experience, has earned income for

themselves and family and also helped to create self-esteem of transgender woman that they can express the identity of transgender woman and has created acceptance by society through being Nang Show.

**Keywords:** Transgender Woman; Cabaret Show; Entertainment Tourism

## **Introduction**

If refers to tourist attractions, Phuket is a famous tourist destination in Thailand, for both Thai and foreign tourists. Therefore, there is a variety of different tourism types as an alternative for tourists. The most important types of tourism are natural environmental tourism, such as diving activities and recreational tourism which means tourist attraction that can enjoy the beach, sunbathing, enjoying delicious food and visiting entertainment venues such as pubs, bars and shows. The show of performers who are the lady boys or transgender women, called Nang Show at Cabaret venues, is interesting for foreign tourists, based on the survey results of the Tourism Authority of Thailand in 2011, which collects data from 69 foreign tourists. It was found that the cabaret entertainment venue was one of the top 10 tourist destinations that foreigners were traveling for. (National Statistical Office, 2011) and is also considered a highlight to attract tourists who prefer recreational tourism and has become a source of income and economic development for Phuket as well. In Phuket cabaret venues are the places that attract tourists, there are 3 famous cabaret shows; the Phuket Simon Cabaret Show, the Phuket Simon Star Show and the Aphrodite Cabaret Show. Each Cabaret show presents Thai cultural identity and supports tourists to learn more about Thai culture.

The cabaret shows in Phuket involve performers who are transgender women. From the survey results we learn that at present Thai society has begun to accept more gender diversity and this gender type of Nang Show, although it is well known that sexual deviant behavior or being a lady boy is not a new issue in Thai society. But it was not disclosed and accepted until entering the 21st century, resulting in gender equal rights, freedom and humanity. Therefore, many people now accept transgender women, by the ability of learning, individuals having higher potentials that are acceptable, especially various entertainment venues in Phuket where tourists can see transgender women such as Nang Show perform in cabaret show venues. These places attract the attention of tourists who came to see their performances (Kosom, 2008). After that the researcher became interested in studying the process of becoming Nang show.

## **Research Objectives (Times New Roman 12 point, bold)**

To study and analyze the process of becoming Nang Show there are 3 objectives

1. To study the turning point of decision making to be Nang Show
2. To study the forming of Nang Show identity
3. To study the life changing experience of becoming Nang Show

## **Theoretical Framework**

Related theories about Self and Symbolic Social Interaction was used to analyzing social phenomena. To support research to understand the social behavior of individuals, including interpretation and explanation behavior under the special social context of each situation. Self is the feeling that an individual has about himself and attempts to understand himself by reflection from the reaction of others like Looking Glass Self, the individual return to look at themselves during their interaction with other people according to symbolic interactionism “Self” is as a social object, formed by interaction with others people called Significant Other. Through the definition and attitude of Significant Other the form of “Self” will occur, which is unstable however Self is dynamic and can be changed according to the meaning given by the situation. Self can be changed by mechanisms to make individuals perceive their own Self and taking role. The process of perceiving the view or attitude of Significant Other is influenced to individual, such as Self-Esteem. Role taking is strongly associated by communication through Significant Symbols that give meaning or definition together. At the same time Self is a result of social rebellion, it can cause patterns and controls social interaction with other people in society. The researcher is interested in the consideration of the Self- formation of Nang Show,

to explain changing of self-definition, giving meaning or self-definition of the individual caused by rebellion against others and individual ideas of themselves as Nang Show and understanding the behavior of the person who will continue to react to others.

While the concept Socialization is used to describe the learning process of becoming Nang Show by Social Agent to assist in socialization. Moreover, Goffman's Dramaturgical Perspective will be used to assist explanation about the social processes involved in communication during social interaction. Recognition and interpretation of others to the individual who has managed his/her own impression to others for acceptance, in this situation the individual is like an actor/actress who is wearing a mask that needs to be presented and accepted by others. Performance is an activity it occurs during the interaction between the individual and others. It is like an actor who is acting according to the role on the Front Region to present to audiences. For the phenomena about Nang Show, they attempt to control and manipulate their image on the fundamental of "Dramaturgical Perspective" to convince others to accept their identity as quality Nang Show.

### **Research Methodology**

Qualitative research is used for this study. Collecting data by participant observation in the cabaret venue and in-depth Interview to collect data from Nang Show. The samples were selected by purposive sampling and so by the criteria of Front Line Nang Show 5 cases were selected. The data was collected at the Phuket the Simon Star Show. The Phuket Simon Star Show is one of the most popular entertainment venues in Phuket and in Southeast Asia. There are various show sets, modern sound- and light systems, beauty costumes, the grandeur of the stage and amazing performances by transgender women performers called Nang Show. Therefore, Phuket Simon Star Show can attract many tourists especially foreigners.

### **Results (Times New Roman 12 point, bold)**

Nang Show are transgender women who perform in cabaret venues, they show many kinds of performances such as comedy, singing, dance and drama. The research project "Social context of lady boy in Soi Bangla, Patong beach, Phuket" Somphet Mu Sophon (2003) found that there are various types of entertainment created to attract tourists. However, entertainment shows, performed by transgender women could attract more tourists than entertainment shows performed by women.

#### **Process of Creating Nang Show 's Identity**

The process of becoming Nang Show consists of 3 Stages

##### **The first Stage: The turning point of decision making: becoming Nang Show**

At this stage, an individually encountered situation that changed his life, thus it is a turning point of the individual to decide to enter a new way of life and being called Nang Show. Most case studies show that they start being Nang Show between 20-24 years old, four persons and one person 28 years old. About Educational level 4 person graduated from high school and 1 person had a Bachelor's degree. Moreover, researchers found that their Home towns are Chiang Mai, Phayao, Chiang Rai, Sakon Nakhon and Phuket. The occupation before being Nang Show listed were two students, one designer, one office staff, and one makeup artist. Conditions which influence the individual to make decision to enter Nang Show occupation were a good income, love to be on stage and wanting to dress beautifully. In addition, at the beginning the interest is sparked by persuasion from friends or a close friend who was senior Nang Show, thus a senior Nang Show was the Significant Other who influenced individuals to made the decision to became Nang Show.

##### **The Second Stage: Socialization to form Nang Show identity**

The socialization mechanism to create identity as Nang Show was related to norms that were guidelines of practice which related to define himself as Nang Show, the trainer and co-workers were Social Agents who played an important role of socialization to support the individual to be Nang Show and a member in the organization to behave according to the rule. From those interviewed the trainer gave some information; Nang

Show should be a person who has good personality, a physique similar to woman. In this matter they would be selected by audition to judge/consider their performance ability. The first feature of selection is dancing, if they pass the next thing they will have to change is the image of their body by refining it to look like a real woman, to be a Nang Show.

The trainer and colleagues are Socialization Agents have the following roles:

1. The trainer will teach acting and gives advice about the rules which are in agreement of being Nang Show

2. Colleagues play a role in socialization, such as giving advice, exchanging experiences, because being a co-worker in the same organization has the same attitude and norm of practice that lead to having similar experience or encountering similar situation. Thus giving advice to colleagues is considered as support to develop the identity of being Nang Show.

In summary, significant others of socialization, trainer and colleagues influence the learning process of being Nang Show both direct and indirect.

Learning issues of being Nang Show

1. Rules

When an individual enters the world of being Nang show he has to learn about the rules and guideline related to norms for their new status which is recognition of organization and of behavior as below;

2. About Hair dyeing, Nang Show should not make hair color different from colleagues

3. Giving respect to seniors

4. High responsibility

Learning these rules of organization are important part to develop the individual to be Nang show which affects the individual's behavior in everyday life, then the individual can identify himself being different from others by having special behavior in Nang Show group. However, each person takes time to adjust himself in new ways in a different life, depending on his personal condition.

### **The Third Stage: Maintaining Nang Show Identity**

Since the first stage, friends have influenced to push the individual to enter Nang Show career, trainers and senior Nang Show, who are co-workers, have significant influences on changing the meaning of the individual's self-definition and identity. In the third stage, this is the period when Nang Show starts performing on stage. For the first show, it must be corrected and criticized by the trainer. Thus in this period, the criticism was important and would influence to self-definition of Nang Show. Nang Show performed the show to the audience therefore reaction of audiences to Nang Show affected the definition of self and developed the identity of Nang Show as well. New Nang Show who could impress audiences would gain more self-confidence because the individual believes that he could create entertainment to entertain and satisfy audiences. Then by observation and evaluation of reactions manner of audiences influenced to create self-esteem and the feeling he was success to be gained from the attention of audiences thus creating positive reinforcement and positive self-view in adherence to being Nang show.

From conversations with Nang Show, Pakky said,

"I am proud to have a good chance to become Nang Show and to work here because it is difficult for transgender woman to get an opportunity like this. "

Role Taking continues according to the audience's expectation and reaction.

Ruangfah Burakorn (2007) Socializing in society involves us and others related to the identity that we and others experience and how to continue working regarding expectations and sensibilities of others with different identities, there are norm, attitude and culture in each society as a guideline. In addition, identities that are similar and different are also criteria of division, which include gender identity that is related to social gender roles such as male, female, gay and lesbian, etc. Gender Identity is also a matter of inequality, lack of power and being exploited for Gender Identity which is viewed upon as inferior beyond criteria of division between man and woman. The existence of gender identities which are different from social expectations result in LGBT is evaluated as negative behavior in society. For Thai society, in the concept of Buddhism, this term is used to call people who have different sexual behaviors from heterosexual. Moreover, homosexual

who are Male Transvestite have sexual pleasure when they dress as a woman and many of them like performances such as dancing.

On the issue of identity presentation, Nang Show phenomena could be analyzed by the Dramaturgical Perspective of Erving Goffman. Goffman said the style that a person attempts to present to convince others for attention, the way they present themselves to others is a social process relating to communication, perception and interpretation. Goffman compares the world as a large theater, in everyday life each person in the society is like an actor and has many roles or masks to wear in each different situation and is appropriate in social interaction. Therefore, when transgender women take role of Nang Show, by the status of Nang Show who have to create impression, attention and influence over audiences, while Nang Show performs show to entertain audiences on the stage, Nang Show must create self-confidence. In this matter Nang Show have to perform according to assignment and imagination created, in other words, during Nang Show's performance there is a social interaction, which will affect those who participate at that time. From the view of audiences and others, Nang Show if they are able to perform to be realistic as women, it will gain impression. Therefore, Nang Show attempts to manage his own impression to others, Nang Show's performance on stage requires three important elements to support the show, by Goffman's Dramaturgical Perspective, appearance, manner, and setting. In the part of appearance, it is emphasizing the grandeur of the costumes, accessories, make-up and hair style including supplements for the body with many methods such as transsexual surgery, breast and face surgery, using breast augmentation sponge, hip augmentation sponge pants, etc. In Nang Show, each person has a different costume style according to the theme of each show. Most of the show sets are created and designed in relation to the unique identity of each country to present, such as India, Korea, China, Egypt, Thailand, etc., for manner or gesture of performance, dancing, music lip synch and singing which have to be a feminine style. Setting, the stage is decorated with spectacular colors, music, performance, emphasizing singing, dancing, creating fun for the audience. The Cabaret show is a large stage and there are more than a hundred performers. The target audience is mostly international tourists.

At this period, opinion and attitude of audiences affects Nang Show's self-confidence in being a person who is more special than others, leading to the reinforcement that will maintain to be Nang Show. Therefore, the reaction of audiences to Nang Show can be observed from singing along, moving the body along with the music rhythm, clapping after each show set ending, laughing and talking between comedian Nang Show and the audiences below the stage. The significance in collective feelings and experiences of a group of Nang Show who share the same gender identity that is different from the dominant gender identity, thus it can be said that the Cabaret venue is a communication place for a subculture group of transgender women represent negotiation for accepting transgender women as they have a different identity from others. Moreover, Cabaret venue is a social space that allows groups of transgender women to fully present their gender identity.

### **Change of life**

When persons step into the world of Nang Show, new condition, status are being accepted by others, they have more self-esteem and better economic status. A part of their income will be sent to the family for taking care of parents or the family business. However, most of the income will be spent on care for their own beauty to maintain or increase their own beauty. Their income spent to buy make-up equipment, cosmetics, silicone breast augmentation, high heels, etc., including salon and spa visits for shaving or getting rid of beard grow, scrubbing skin, hair removal, nail decoration to imitate authentic feminine beauty. While many of them need to have additional surgery and take contraceptives to increase female hormones. All these are necessary for them to have beautiful appearances and self-confidence which are very important because they have to wear dresses that reveal every shape.

Nang Show gains income by 2 ways;

1. Monthly income, in Nang show each person has a different income which depends on each position, function and importance

2. The income from photography, Nang Show will gain money from audiences, who impress and satisfy Nang Show, then they want to take photos with Nang Show and give some money as reward. Audience satisfaction can be measured from the amount of money that Audiences give for Nang Show photography.

### **Discussion and Conclusion**

Overall, from this research, the finding presents the model of process of becoming or developing Nang Show Identity, starting from persuasion by friends who are also transgender women as individual. When the individual decides to enter to be Nang Show, socialization as a part of developing Nang Show Identity will begin. Finally, the individual will adhere to be Nang Show, who has transgender woman identity, by the audience's reaction that support Nang Show's pride and self-esteem. Kaweewong (2012) found factors which are an influence to self-acceptance in transgender women, both non-transsexual and transsexual, such as age, occupation, income and family relationship. The researcher also found that some money that Nang Show sent to family assists to maintain a good relationship and acceptance with the family.

Being Nang Show, is like responding to the need to come accord Gender identity borderline from gender role as man to play gender role as woman, thus being the Nang Show response to these needs and expectation of acceptance from others. In addition, it can be said that cabaret venue is an organization for a group of transgender women that makes them fully express their desire to be women, belonging to people with the same needs, having the same experience then they understand each other. This sub-social group has its own unique social organization.

### **Suggestion**

From the collection of field data, Almost of Nang Show they have surgery to create female physical appearance more complete. Therefore, the research project in the future should include issues related to the surgery of transgender women. In addition, research issues regarding foreign tourists' attitude towards Nang Show can be supported to explain Nang Show phenomenon more completely.

### **References**

- Kaweewong Leraanant. (2012). A Comparison of Self - Acceptance of Male to Female Transgender Reasons as Classified By Demographical Factors (Thesis of Master Degree). Ramkhamhaeng University.
- Ruangfah Burakorn (2007). Communication and The Construction of Kathoei Identity in The Space of Cabaret show (Thesis of Master Degree). The Faculty of Journalism and mass communication, Thammasat University.
- Sompech Moo-Sopon (2003). Social context of ladyman in Soi Bangla, Patong beach, Phuket (Independence Studies). The Faculty of Humanities and Social Sciences, Prince of Songkla University.
- Sam Winter. (2008). Thai Transgenders in Focus: Demographics, Transitions and Identities, Retrieved June 5, 2019, from [http://www.transgenderasia.org/paper\\_transpeople\\_in\\_thailand\\_thai.htm](http://www.transgenderasia.org/paper_transpeople_in_thailand_thai.htm)  
Translate by Kosum Omphornuwat

## Case Study: Creation of Arts Performance for Tourism in Lon Island Community located in Phuket

Teerathorn Lamnaokrut<sup>1</sup> and Wathanan Srinin<sup>2</sup>

Thai and Asian Studies program<sup>1</sup>  
Prince of Songkla University  
Phuket 83120, Thailand  
Email: [teerathorn.l@phuket.psu.ac.th](mailto:teerathorn.l@phuket.psu.ac.th)

Thai and Asian Studies program<sup>2</sup>  
Prince of Songkla University  
Phuket 83120, Thailand  
Email: [wathanan.s@phuket.psu.ac.th](mailto:wathanan.s@phuket.psu.ac.th)

### Abstract

The purpose of this research is to study the history and local traditions of Lon-Island in order to create artistic scenes that can stimulate tourism. Lon-Island is located in Phuket province in Thailand with a natural landscape and a complete ecosystem. The survey covered local communities, entrepreneurs, tourists, community leaders, artists, and heirs of shows in the community. This study is a qualitative analysis of documents such as books, articles, etc. as well as data collected from local populations obtained from interviews. The results showed that there have been considerable social, cultural and environmental changes due to several factors, including historical factors such as the immigration of Muslims, about a hundred years ago, among others. These changes have had impacts on the community, including traditions, rituals, and so on.

**Keywords:** culture, local traditions, performing arts, tourism

### 1. Introduction

Nowadays, tourist attractions in Thailand have many diverse forms. The most popular tourist attraction is often a natural attraction and cultural attraction. Thailand is a country that has the advantage of natural resources that remain abundant throughout all regions of the country. Making Thailand a popular tourist destination in the world (Ministry of Tourism and Sports, 2011) and also the potential tourist attractions ready to be developed into many natural and cultural attractions areas of the country in order to support the expansion of tourism and the demand of tourists traveling to Thailand is increasing each year.

Phuket is one of the provinces that still has a complete natural resource and is classified as a world-famous tourist attraction due to the beauty of the sea scenery of Phuket Island and various facilities for tourists. The area of Phuket is considered to be the largest island in Thailand. It is located on the west coast of Thailand in the Andaman Sea water. The Indian Ocean with an area of 543 square kilometers. The length of Phuket Island measures about 48.7 from the north to the south and the width part measures about 21.3 kilometers

from the east to the west. Phuket is divided into 3 districts, namely Mueang District, Thalang District and Kathu District.

Lon Island is one of Phuket's tourist attractions that is beautiful and quiet, suitable for vacationers who want to relax. This island has a natural scenery and a complete ecosystem which is close to the main attractions of Phuket city. In addition, the way of life of the people on the island has not much changed. Causing the island to begin for receiving the attention of foreign tourists who want to find peace without finding anywhere on the big island like Phuket. It enables both Thai and foreign tourists to travel in a natural way in the island. Therefore, it makes villagers to become more engaged in the tourism. In addition, there are many investors coming to build hotels, homes and restaurants along the seashore. There is no attraction to the art of culture in terms of performances. If the villagers on the island have initiated activities or performances to create a point of interest, it can attract more tourists to travel on the island and generate income activities for people in the community.

Arts performance is a form of cultural performances. That will help to reflect the history of the lives of the communities. The people in the community should bring the cultural capital of the existing community. Creating economic value, career opportunities and income activities for the community is another system that can be used for developing the communities in the local and the national level. Though, it is a national identity that tourists are interested in as well as in various localities. There is also a movement in the case of using music together with various traditions which is commonly observed in each locality of the country. Also, it is the most necessary thing to convey in the cultural identity of Thai music towards international tourists.

## **2. Research Objectives**

1. To study the history of Lon Island, Phuket province
2. To study the local traditions and culture of Lon Island, Phuket province
3. To study the ways of creating Lon Island performing arts in Phuket

## **3. Literature Review**

The research group has collected literature and navigations related to the creation of performing arts as follows: Folk performing arts are art that is born from the creativity of local people that each locality is transmitted from generation to generation and used together. This will eventually develop a national art, conservation and development of folk performing arts is very also important. In addition, preserving the local identity allows the artists to apply and develop the art performance in order to be suitable and consistent with the conditions of the current global society.

Viwatchai Boonyapak (1988, p.32-37) gave a view on the conservation and development of folk performing arts by emphasizing its relationship with tourism. It developed the format and content to stimulate interest and realize more importance which requires a careful plan and a coordination.

Prachak Saisang (1988, p. 73-75) concluded that to know the guidelines for promoting and disseminating folk culture clearly, we need to know about the nature and factors contributing to folk culture before seeking ways to promote and disseminate. By adhering to the principles that will promote, disseminate for whom, and



how to be respected by individuals, individuals, as well as government and private agencies that support local culture. The dissemination will be made for academic, economic, social and national security. Therefore, publishing can be done both in the system and outside of the system.

Pattaya Sai Hu (1988, p. 70-72) argued that folk arts and culture that promote and disseminate folk art and culture is not only for looking at the properties as objects. But it should consider the internal person who owns that property and third parties interested in and claiming that property. If the interests of all parties, which are different can coordinate with each other conflicts in thought and implementation measures can be achieved due to the different interests and interests expected. But what should not be forgotten is that the final benefit should be given to the person who owns that local culture.

Suttiwong Phongphaibun (1988, p. 63) concluded that the promotion of folk art and culture is perfect. It should be a means for bringing cultural resources to that particular group to use for development in the management of health education and make life balanced with the economic conditions and technologies that are changing in the society of that group. The promotion process should be done systematically and continuously resulting in a deep penetration into the common habits of people. By allowing the ethnic group to have the power and duty to promote that activity as much as possible.

Srisak Wanlipodom (1991, p. 6) claimed about the the conservation and development of indigenous cultural heritage. They know what should be conserved and developed. For this reason, time is developed and conserved from the central government agencies. People in the local society who are the owners do not understand. Therefore, they thought that it was the royal way and the government of the country.

Conservation and development of cultural heritage amidst the severe economic changes that have caused the balance of social and cultural life of people. Nowadays, the society wants to make consciousness about locality with the condition that they must manage each locality to realize the cultural significance of each locality in an equal manner. There is no better culture from the local area. Because the good culture depends on how the local society has a sense of ownership.

Cultural integration (Acculturation). This is used when interacting with social cultures between two groups of people with different cultural societies. It received each other's culture but in the case of a cultural society with unequal interaction. One group will tend to accept the culture of another group. We find that the group with less powerful culture will be blended into a part of a group with a more powerful culture at the same time, there may be exchanges. Finally, if two sets of cultures are mixed together into one set, no matter which part of the set, more than that, it will be a cultural blend. (Assimilation) that accepts each other in the present state most of the time it is found that the culture of Indians and Western cultures in the United States has been almost blended together. From the white people receiving corns from the Indians and the Indians receiving many cultures from the white people.

Lowie (Amara Phongsapich. 2006: 18-19); Reference from Lowie (1954: 219) the concept of cultural integration and Boonyong Kethet (2536: 49) gives the views on the concept of cultural integration. In conclusion, the nature of culture is inherited. Always especially in a society with widespread communication exchange or cultural integration is not limited to local or domestic only if still expanding the scope abroad.

A cultural diversity is the interaction of people with different cultures having received each other's culture until accepting each other's culture. A cultural diversity is the result of the culture of people born from different parts of other cultures into the same culture. This concept is therefore useful to apply. in Thai art in the establishment of Phuket Province because it is culturally a diverse province where people from many regions live together. There are many forms of mixed cultures. The art of Thai music is considered as culture that has been used until the integration of music culture from local people to live together.

In addition, the research group collected ideas about the creation of performing arts as follows: Creation of performances is the application or development of the show to be diverse and adapt to the changing society. Therefore, people who are creative will need to have enough background in acting to understand the essence of this art. It, will create a valuable work reflecting the identity of the national culture in which Surapon Wirunrak (2000, p. 211-238) gave the views on the creation of performing arts Summarized as follows:

1. The concept of the role of acting which is a contributing factor to the society because human society needs to express.
2. Determination of the main ideas are essential for the creation of works so that the work will be in accordance with the intent of the creator. By defining the idea at the target level, it means clearly determining what the performance is meant for. For whom and the purpose of setting the goal is to be defined as something that is intended to occur in the form of clear activities to be implemented in accordance with the objectives.
3. Data processing the creation of the performances. When the objectives are determined, the creators must collect the information. There are two types of information, facts and information that are inspiring.
4. Determination of boundaries means determining what the show covers. And how setting boundaries helps the creators not to think beyond what you can do actually. Therefore, determining the scope of creative performances should take into account the form of display, the number of actors, the time spent in the show. The work will be successful as desired.
5. Formulation: The creator may be the author or co-author or only the recipient of the order. Usually, the creators are especially skilled in one form. And they are often assigned to create a model that has been done before determining the new show style.
6. Determining common elements: The creator must define the concept or form of the common elements that will be used in the performance. Determining common elements is necessary because they need to work with others. The creator must understand the concepts and patterns. They must listen to many ideas and proposals to make the work unified because it is a collaborative work of many parties

The creation of performances: Whether it is raw materials or ideas, which studies and learns from the past and how many examples are still there. It would make the creator to have the opportunity to create a wide range of performances. The application of Thai music is another art that shows what the creators can bring about. That has seen the tradition and beauty from the past as a base to design their work and can also be designed to be unique to existing works. It makes the work that has been created a unique and has a distinctive style and can be applied to the current society without losing its identity.

#### **4. Research Methodology**

The study of Lon Island community is to create an art performing for tourism in the Phuket province. It is a qualitative research with the following steps: 1) study and collect data from books, textbooks, documents and research related to community context, including community history, community traditions and culture. The guidelines for creating a form of performing art 2). A basic Survey (Basic Survey) is a non-participant observation (Non-participant Observation) and Participant Observation to collect basic information of the communities such as the population, residence, occupation, physical characteristics, economic conditions, culture and local traditions, community which is consistent with the context of the research 3) data collection by interviewing the sample population and group discussion (Focused Group Guideline) in total of 58 people, classified by a sample group of 3 groups: Group 1: Knowledge groups consisting of Community leader 2, Group 2: Performer consisting of villagers living in the community 46 and Group 3: Related groups comprising of 10 tourists. 4) Information, and examination by the organizing small group meetings. In order to verify the accuracy and confirm the information obtained from the collection in various ways initially. 5) Data analysis used by a descriptive analysis method.

#### **5. Discussion and Conclusion**

The study of Lon Island community is to create performing arts for tourism in Phuket province. The researcher has found the issues that can be discussed in accordance with the objectives of the research as follows;

1. Exploring the area by asking people in the Lon Island community about the history of Lon Island Area 3, Rawai Subdistrict in the study of Lon Island community to create performing arts for tourism Phuket province.

1.1 Results from the research found that Lon Island Community, Moo 3, Rawai Sub-district, Phuket Province the area on the island is characterized by the area of the village as an island. There is a sea surrounded settlements on Lon Island began from the past 100 years ago. There were Muslim immigrants from Satun Province. Traveling to live on the island later. There were people outside who saw that there were many people who had migrated together. But because of living on the island, there are many generations of residents. Causing social, cultural and environmental changes, for example, before the villagers engage in coastal fisheries mainly gardening. But nowadays, there are more occupations that have contacts with Phuket Island in tourism. Villagers in the community turned to the main occupation in tourism, including homestay, driving boats to tourists in various Lon Island community tour and employed by restaurants that opened on the seaside. Collins, (1992) gives the concept of functional structure theory humans have basic needs which needs to be involved in struggling to live, such as food, housing, clothing and relaxation etc. Human being knows how to bring resources around them to make the most benefits and when there are other sources of that provide better results.

In addition, the research on the social and cultural changes of the Thai Yai people Tham Lod Village Pang Mapha District Mae Hong Son province of Pimukchan Thanawat (2003, p. 23-24) found that social and cultural conditions have changed forever. Changes are caused by internal and external factors. The impact on the community is both positive and negative. Traditions, practices, rituals, beliefs change according to

current conditions. By adjusting the waiver according to the popular trend and modern values that have played a role.

This is because the environment in the island has a beautiful nature and rich in various forest species including some wild animals that are difficult to find, such as hornbills, octopus, etc. It can be said that Lon Island can be a natural tourist attraction which corresponds to the Aesthetics Theory or Theory of Beauty. That can be said Aesthetics refers to subjects that focus on the theory on the value of beauty of all things that are around human being, which affects feelings, thoughts or minds. The definition of the word aesthetics does not have fixed boundaries or answers, as well as defining various "art" words, both aesthetic and therefore have various definitions according to the opinions of those who define it. In the study of cultural ergonomics, it is a study of beauty, whether it is a mental state or an object, it is also a matter that gives a different view of many theories of beauty.

## 2. Local traditions and culture of Lon Island

2.1 Local traditions and culture in Lon Island community: From the survey, inquiring and interviewing from villagers who are sample groups in Lon Island community, it was concluded that all people in the Lon Island community are Muslims. In the past, villagers in Ban Lon Island community had a tradition that is almost entirely related to Islam, including fasting traditions. Or known as Hari Raya, like any other general to have Islam if the village has a wedding or the new house work will be performed, such as the throne of the Shadow Plays and the Manohra. Most of these performances are performed by young people from other communities on the Phuket Island. As for the performances of the community, there is only a show that is used to show in the past, but at the present, there is no successor to such performances. So that people in the community can attend the event at present, the traditions and cultures that remain in the community will only have a fasting tradition. But if there is a marriage or a new home, there will be a meeting but there will be no play, as in the past, which will be played from other communities.

The loss of local cultural traditions in Lon Island community due to the social and cultural changes of the community including occupational changes, educational needs and the emergence of new technologies and infrastructure, such as electricity on Lon Island is still not enough to meet the needs of people in the community. Causing the villagers to migrate to the island mostly and the values of the young generation who have ideas about occupation if graduating at a high level causing the youth on the island to continue studying at the provincial school.

At present, Lon Island School has 3 students who live and work on the island. There are about 15 households that have traditionally been swallowed up by social change and the coming of modern technology which corresponds to the theory of cultural neurology (Cultural Ecology) that says the environment determines the process of social and cultural evolution. Julian Steward, an American anthropologist explained the concept of cultural ecology that is a study of the social adaptation process under the influence of the environment by focusing on the study of evolution or changes caused by the adaptation of society.

This concept looks at the society as a dynamic way at all times. The change is the result of adaptation to the environment with an important basis production of technology and social structure and the nature of the natural environment. Considering the cultural ecology is different from social ecology. The cultural ecological

concepts may be concluded that people with natural, good ideas (Meaning nature in the body) will be able to adjust the environment to be a good culture. At the same time, a good natural environment will encourage people ideas to be better and can create a better culture as well.

The theory of cultural ecology is therefore created. "Two-way relationship and gardening" between people and nature and nature and culture. Ecological concepts contribute to cultural development or the development of human culture in the society directly.

Therefore, it can be said that the main cultural tourism is that the community places the cultural characteristics that are more prominent than other places. By maintaining a good culture that has existed from the past to the present, it is necessary to cooperate with many parties, both those who know villagers in the area forwarding of the culture that passed through the ancestors passed on to generations cultivating consciousness with children who are the core of forwarding culture.

### 3. Guidelines for creating Lon Island art forms

From the survey, inquiring and interviewing people in Lon Island community if creating a show on the island for most of the villagers on the island will choose to perform acting. Because the island has a secondary performance, but over time, the changes that have caused the show to disappear from the island. It is due to the social and environmental changes that lack succession forward to generation.

Cultivating consciousness for children and young people as the concept of conservation and development of folk performances that said Folk art is an art that is born from the creativity of local people. Each locality is transmitted from generation to generation and used in practice. It has inherited each other until being accepted by people in society. If the society has accepted many arts, this will eventually develop into a national art. For this reason, conservation and development of folk performing arts is very important. In addition to preserving the local identity, it also allows the artists to apply and develop the performing arts in order to be suitable and consistent with the conditions of the current global society and has changed in a more appropriate way and does not lose self-many scholars who have given their views on conservation, development and promotion.

According to Viwatchai Boonyapak (1988: 32-37), it can be concluded that folk performing arts should focus on promoting both the culture and the creators of skilled culture or those with special skills The promotion and dissemination of folk performing arts in order to support tourism should be developed in the appropriate form and therefore need to be applied. It has developed the format and content to stimulate interest and realize more importance which requires a careful planning and coordination.

## 6. Research suggestions

1. Improve the well-being of the people on the island, for example: promoting careers in order to earn more income and developing utilities to be more ready.
2. Raise the awareness of the importance of art and performance in Lon Island to children and the youth; otherwise, they will be lost.

3. Conduct more research about tourism in Lon Island focusing on various natural attractions, including attractive tourist scenery: waterfalls, beautiful seas, and natural resources: octopus, hornbills (Bucerotidae) and prawns. Lon Island is located among various tourist attractions such as Bon Island, Hae Island, and Koh Tanong, but it has not been known by tourists a lot. In fact, it can be one of the tourist spots for having lunch or relax during their ways to other islands.

### Reference documents

- Amara Phongsapich. (2006). Cultural diversity (Paradigms and roles in civil society). 5th edition, Bangkok: Chulalongkorn University Press.
- Amazing Bangkok. (2007). Bangkok, Tourism Authority of Thailand.
- Arturo, Excobar. (2005). Whose Knowledge? Whose Nature? Biodiversity Conservation and Burnell, Borderland Development. Doctor's Thesis The Chinese Hong Kong: University of Hong Kong.
- Boonyong Keset. (1993). Culture of the human race. Ubon Ratchathani, Yong Sawat Printing.
- Collins, Cobuild. (1992). Aesthetic Means Relating to Appreciation of Beauty or Art. England: Language Dictionary.
- Collier, Alan and Sue Harraway. (1997). The New Zealand Tourism Industry. Auckland: Longman.
- Pattaya Sai Hu. (1993). "The birth and persistence of folk culture," in the documentary of the Seminar in Folk Art (Mor Lam), Northeast. Page 14. Khon Kaen, Khon Kaen Cultural Center.
- Prachak Saisang. (1988). Guidelines for promoting and disseminating Thai folk culture. Bangkok, Teachers Council of Thailand, Lat Phrao.
- Srisak Wanlipodom. (1991). Conservation of cultural heritage and modernization amidst the tide of change. Cultural Seminar Report: Thaksin Case. Bangkok: Teachers Council of Thailand, Lat Phrao.
- Suttiwong Phongphaibun. (1988). Guidelines for promoting and disseminating folk culture. Bangkok: Teachers Council of Thailand, Lat Phrao.
- Surapon Virulrak.(1985). "Dance Research," Arts and Culture. Thailand, Chulalongkarn University.
- Tourism Authority of Thailand. Phuket tourism. M.P. <http://www.phuketcity.org> (October, 7, 2010).
- Viroj Sararatana. (2003). Educational administration: principles, theories, functions, issues and analysis. Bangkok, Thippawisut,
- Viwatchai Boonyasak. Ecology of the way to conservation. Bangkok, Odean Store, 1988.
- Winai Chai Thong. (2004). Tourism industry. Bangkok, Bunnakit.
- Wirun Tangcharoen. (2003). Aesthetics for life. Bangkok, Santisiri Printing.

## **Poster Presentation**

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INTERNATIONAL COLLEGE  
 BANGKOK UNIVERSITY

## 4<sup>th</sup> TICC INTERNATIONAL CONFERENCE

July 11-13, 2019, At The Amari Pattaya Hotel, Pattaya, Thailand

### THE INFLUENCE OF INDONESIAN CONSUMER BEHAVIOR TOWARDS BUYING DECISION PROCESS FOR ACCOMMODATION IN CENTRAL BANGKOK AREA, THAILAND

Agus Riyadi & Uli Amelia Septriani  
 Trisekti School of Tourism - Indonesia  
[agus.riyadi@stptriasekti.ac.id](mailto:agus.riyadi@stptriasekti.ac.id)

#### Introduction

In Asian countries, Indonesia is number two as the highest contributors of tourists to Thailand during 2016 - 2019. Indonesian traveler arrivals had reached 1.6% to Thailand after Vietnam with 3.16%. Nowadays, Indonesia would prefer to visit Thailand instead of Singapore as their holiday destination. It is shown as the year to year statistic which is mostly increasing from January 2016 until June 2019. From 2016 to March 2017 itself, there was 24.21% increase in the number of Indonesian tourists in Thailand. As reported by Indonesian Times (<http://travel.idtimes.com/>), Bangkok & Phuket are listed as rank 3<sup>rd</sup> and 6<sup>th</sup> in Top 10 Favorite Asia Pacific Destinations for Indonesian Tourist. Based on this situation, supported by the theories and previous findings, researcher would like to study about how Indonesian consumer behavior directly linked with buying decision process through its influencing factors, specifically in choosing accommodations in Central Bangkok area, Thailand.

Source: Google, Retrieved <http://www.aria.ac.id/> 2019

Source: Statistics of Thailand, Retrieved <http://www.dta.go.th/> 2019

#### Result

##### RESULT OF CONSUMER BEHAVIOR GOOD (2.51-3.25)

Item	1	2	3	4	5	Mean	Stand. Dev.
Individual Factor	1.80	1.80	1.80	1.80	1.80	1.80	0.00
Societal Factor	2.51	2.51	2.51	2.51	2.51	2.51	0.00
Personal Factor	3.25	3.25	3.25	3.25	3.25	3.25	0.00

##### RESULT OF BUYING DECISION PROCESS GOOD (2.51-3.25)

Item	1	2	3	4	5	Mean	Stand. Dev.
Travel Experience & Travel Outcome	2.51	2.51	2.51	2.51	2.51	2.51	0.00
Decision process is more considerate	3.25	3.25	3.25	3.25	3.25	3.25	0.00
Organized traveler	2.51	2.51	2.51	2.51	2.51	2.51	0.00
Depends more on gut feelings	2.51	2.51	2.51	2.51	2.51	2.51	0.00
Like to try different brand & type	2.51	2.51	2.51	2.51	2.51	2.51	0.00

#### Hypothesis

ANOVA					
Factor	Sum of Squares	Df	Mean Square	F	Sig.
Regression	0.938	1	0.938	102.617	.000 <sup>a</sup>
Residual	0.046	99	.000		
Total	1.084	100			

<sup>a</sup> Dependent Variable: Buying Decision Process  
& Predictors: Constant, Consumer Behavior

F-Statistic > F-Table  
 (2) 837 > 3.9381  
 Ho Rejected & H1 Accepted

There is a significant influence between Indonesian Consumer Behavior Towards Buying Decision Process for Accommodation in Central Bangkok Area

#### Conclusion

##### Consumer Behavior

- Individual factor is most dominant
- Bangkok is a relatively affordable holiday destination
- Young adults, women & traveling with friends
- Overall individual & interpersonal is balance
- Entertainment needed
- 1-3 Star Hotel | Ratchathewi area

##### Buying Decision Process

- Focus more on Travel Experience & Travel Outcome
- Decision process is more considerate
- Organized traveler
- Depends more on gut feelings
- Like to try different brand & type

##### Relationship of Consumer Behavior on Buying Decision Process

- Positive relationship
- Strong level of correlation (0.733)
- Consumer Behavior = Buying Decision Process

##### Influence of Consumer Behavior on Buying Decision Process

- Positive influence
- 57% influence on BDP
- 43% influence by others

**CONCLUSION**

1. Room bundling with specialized tour package especially for woman traveler and group of young adults, since the behavior is Indonesian would prefer to travel in a group, especially in Central Bangkok area
2. Indonesians like to experience staying in different type of accommodations. Social media as promotion platform. New target for local brands accommodations.

Future research focus on Service Marketing Mix TP's influence on BDP.

#### References

Association of Thai Travel Agents. Statistics International Tourists Arriving in Thailand as of 30 June 2019. <http://www.atta.ac.th/?p=4018>. Retrieved 29 June 2019.

Moveya, S. (2016). 10 Destinasi Asia Pasifik Terfavorit Wisatawan Indonesia 2016. <http://travel.idtimes.com/destination/10-10-destinasi-asia-pasifik-terfavorit-wisatawan-indonesia-2016-1>. Retrieved 28 July 2017.

Thaaronn (2016). Thailand: Hotel Survey 2016, from check in to log in. [www.grantthornton.co.th](http://www.grantthornton.co.th). Retrieved 25 July 2017.



# Art in Globalizing Society for Tourism :

## Art Emulates People, Place, Culture, and Tradition

Rungnapha Khamung, Suthasinee Jayankura na Ayudhya, Po Siu Hsu

### Abstract

Artworks have contributed in the globalizing society with consequences in aesthetic innovation, societal shift, societal design, creative revolution, and cultural transformation. An art object communicates with its viewers, which provokes the reactions from the viewers. A meaningful communication occurs if there is a successful dialogue between the artwork and the viewers. This paper used a series of paintings from a tourist's viewpoint—Portraits of Thailand and a series of contrasting photographs and paintings side by side with those portraits as the competing perspectives to discuss the notions that art may emulate people, place, culture, and tradition in globalizing society for tourism. This study confirmed that art emulates society, communicates with viewers, and establishes pertinent thoughts for tourism development.

### Objectives

By way of introducing paintings containing coded messages within a specific cultural context, the visual essay attempted to open up dialogues of analysis to obtain valuable lessons and thoughts.

### Participants

The authors selected three universities located in USA, Thailand and China, where the authors chose students from Art and Design Program (Thailand and China), Tourism Program (Thailand), and Landscape Architecture Program (USA), and scholars from the International Office (USA) as the sample population.

Survey	Sample	Gender		Age				Field of Art		
		Male	Female	15-20	21-24	25-30	>30	Yes	No	Maybe
Int. Scholars	19	42%	58%	0%	36%	32%	32%	79%	5%	16%
Tourism	23	17%	83%	48%	52%	0%	0%	74%	9%	17%
Land Arch	19	53%	47%	68%	32%	0%	0%	68%	11%	21%
Art & Design	31	29%	71%	55%	45%	0%	0%	97%	0%	3%

### Virtual Exhibition Framework

There were 10 topics of dialogues within this exhibition survey; each artwork was followed by a set of keywords for participants to match their thoughts regarding the messages or voices delivered by that specific artwork viewed.

### Results and Discussion

We compared the overall reaction intensities to all paintings and artworks among four groups of sampled population students from Art and Design Program, Tourism Program, Landscape Architecture Program and scholars from the International Office. International scholars and Art and Design students have stronger reactions than the rest of two other groups. This may attribute to the fundamental knowledge in globalizing society and familiarity to the subject of arts and design.

### Overall Reaction Intensities for All Participants (Survey n=92)



### The Participants' Response Distribution

We plotted the overall reaction intensities of the participants from the survey into four distribution curves. The majority of participants' responses was on the strong reaction side while a few participants with extreme disagreement preferences dragged on the right tail of the curve. Based on this result, it is fair to say that art positively affects participants' visual outcomes.

<sup>1</sup> Int. Hospitality and Tourism Management, Burapha University International College

<sup>2</sup> Fine and Applied Arts, Burapha University International College

<sup>3</sup> Landscape Architecture, Oklahoma State University T4074, USA

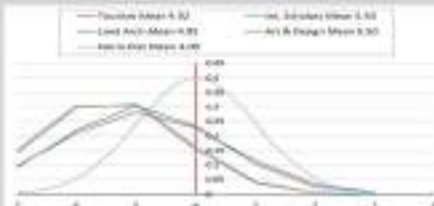
### SURVEY-Portrait Thailand with Key Words



### Conclusion

Artworks portray people, place, culture, and tradition of a globalizing society with influences of aesthetic innovation, societal shift, societal design, creative revolution, and cultural transformation. When arts join with tourism, visitors appreciate cultural authenticity and destination enhancement with genuine experiences. Paintings, posters, and artworks can serve as the media to represent.

The Participants' Response Distribution (3= Very Strong, 2= Very Weak, 4= Moderate survey n = 92)



zva specific cultural context and function as key elements for the promotion of tourism destination. This study confirmed that art emulates society, communicates with viewers, and act as a catalyst for tourism development.