THE 11th ASEAN+9 INTERNATIONAL CONFERENCE
ON BUSINESS, ECONOMIC, FINANCE AND INNOVATION

The Online and Real-Time International Conference, July 9th, 2020
“Opportunities and Challenges for Global Business in
Real-Time Economy”
Graduate School of Commerce Burapha University, Thailand
Speech for Vice Chancellor of Burapha University
Associate Professor Dr. Somtawin Jaritkhua

Good Morning,

Keynotes Speakers (Associate Professor Dr. Shankar Chelliah, School of Management, University Sains Malaysia), Associate Professor Dr. Roger Levermore, Dean of School of Management Asian Institute of Technology, Thailand, Representatives from College of Graduate Study in Management, Khon Kaen University, International College of Naresuan University; Faculty of Economics and Business Administration, Thaksin University, Faculty of Liberal Arts and Science, Kasetsart University, Kamphaeng Saen Campus, College of Management of Mahidol University and Faculty of Management Science, Rajabhat Maha Sarakham University, Assistant Prof Dr. Rapeeporn Srijumpa, Dean of Graduate School of Commerce, Faculties and Staffs of Graduate School of Commerce, and all distinguish participants.

I am pleased to welcome you to the 11th ASEAN+9 International Conference on Business, Economics, Finance, and Innovation under the theme of “Opportunities and Challenges for Global Business in Real-Time Economy”. This conference is the first online conference to show that no matter what happens in the world, we are connecting and willing to share and exchange our knowledge and experience regarding the Opportunities and Challenges for Global Business in Real-Time Economy.

I believe that the pandemic happens, Covid-19 is one of the challenges for many global businesses, yet it is also creating a great opportunity for many things or led us to adopt many digital products. Lessons we have learnt from the pandemic may be seen as a big challenge at first, yet with a great innovation and creativity, which change the threats into opportunities for businesses to survive and growth in the future.

Schools and Universities must conduct online lectures via Zoom, Google Hangout Meets and/or Microsoft Team. Lecturers have to adapt their pedagogy to suit the online lectures. Delivery businesses have been robust within a few weeks of lockdown, especially food delivery and parcel delivery. Restaurant, food stalls have to adapt themselves by adopting delivery services. This is to show that the world business landscape is radically changes and when the consumer behaviors change, they will not come backward. Customer expectation is always increase by experience.

I believe that everyone here will gain more knowledge from our keynote speakers as well as the research knowledge sharing from participants during the afternoon sessions. It will be fruitful and shaping our world business landscapes toward creating innovation.

Finally, I wish you every success with this important conference and I look forward to learning about the outcomes and also please stay safe.

Thank you very much.
Speech for Dean of Graduate School of Commerce  
(Adjunct Professor Rapeeporn Srijumpa, Ph.D.)

Good Morning, Associate Professor Dr. Somtawin Jaritkhua, 
Vice Chancellor of Burapha University; Keynotes Speakers  
(Associate Professor Dr. Shankar Chelliah, School of Management,  
University Sains Malaysia), Associate Professor Dr. Roger Levermore,  
Dean of School of Management Asian Institute of Technology, Thailand,  
and honorary participants who come to join the 11th ASEAN+9 International Conference on Business, 
Economics, Finance, and Innovation under the theme of “Opportunities and Challenges for Global Business in Real-Time Economy” Hosted by Graduate School of Commerce, Burapha University and the other 6 universities. Our co-hosts are College of Graduate Study in Management,  
Khon Kaen University; International College of Naresuan University; Faculty of Economics and Business Administration, Thaksin University; Faculty of Liberal Arts and Science, Kasetsart University, Kamphaeng Saen Campus; College of Management of Mahidol University; and Faculty of Management Science, Rajabhat Maha Sarakham University.

My name is Assistant Prof Dr. Rapeeporn Srijumpa, Dean of Graduate School of Commerce, Burapha University as a chair of this event would like to welcome all of the participants to the 11th ASEAN+9 International Conference on Business, Economics, Finance, and Innovation.

Since Covid-19 emerged late last year, the world has been disrupted in many aspects, the business landscape of the world is radically changed since the pandemic happened. One of the significant results we faced is moving from offline to online channels, i.e. instead of having this conference at our premises, and everyone can enjoy the sea, sand, and sun. We have to move to online channel so we can keep the social distances yet still be able to exchange and share our knowledge and meet the purpose of this conference. The purpose of this conference is to publish research results of faculties, students, researchers, staffs from both government and business sectors across ASEAN and International countries. Moreover, this conference also aims to bring both academics and practitioners together to exchange and share attitudes, points of views, thoughts, knowledge, and experiences regarding regional and international business management especially opportunities and challenges they have faced in the current world economy.

I would like to thank faculties and staffs of Graduate School of Commerce, who help preparing and hosting this conference, even though it is the 11th international conference we have hosted, yet it is the very first online international conference we have hosted. I wish you all safety, success, and prosperity in your career either as academics or practitioners. Last but not least, I wish everyone will enjoy and learn from our keynote speakers who come and share their expertise with us. Thank you once again for co-hosting and participating in this online conference without our co-hosts, this conference may not be success.
(ส่วนบ) รา

คำสั่งวิทยาลัยพาณิชยศาสตร์ มหาวิทยาลัยบูรพา

ที่ ๓๕/๒๕๖๓

เรื่อง แต่งตั้งคณะกรรมการอำนวย และวิทยาลัยพาณิชยศาสตร์ มหาวิทยาลัยบูรพา ครั้งที่ ๑๙

The 11th ASEAN+ 9 International Conference on Business, Economics, Finance and Innovation

Graduate School of Commerce (GSC), Burapha University

(ส่วนบ)
16. ผู้ช่วยศาสตราจารย์ ดร.ยอดชัย รบฟัก
17. ผู้ช่วยศาสตราจารย์ ดร.สวัสดิภูมิ เลิศพุทธวัตร
18. ดร.กฤษณ์ เลิศบัณฑิต
19. ดร.สุชาดี สุชิระ
20. ดร.วิชิต ชังทรัษฎ์

คณะกรรมการจัดงานวิจัย
1. ดร.สุทัศ แสงบด
2. ดร.ชัยนฤกุล ติณงค์บุรุษ
3. ดร.วัฒนกิจชัย ภูชุตน

ให้คณะกรรมการตรวจสอบความถูกต้องและเนื้อหาทางวิชาการ ทักษิณแก่ให้แจ้งผู้จัดงาน เพื่อปรับปรุงก่อน
นัดสอบความวิชาการในงานดังกล่าว

ทั้งนี้ ถิ่นตั้งนี้เป็นต้นไป โดยให้ฝ่ายการปฏิบัติงานที่จัดการจัดงานประชุมวิชาการ
ระดับนานาชาติ ครั้งที่ ๑๐ ประจำปีการศึกษา ๒๕๖๒ จะดำเนินการแล้วเสร็จ

ส่ง ณ วันที่ ๑๐ เดือนมีนาคม พ.ศ. ๒๕๖๒

(ลงชื่อ) ระพีพร ศรีจำปา
(ผู้ช่วยศาสตราจารย์ ดร.ระพีพร ศรีจำปา)
คณะศิลปศาสตร์ มหาวิทยาลัยขอนแก่น
Itinerary

The 11th ASEAN+9 International Conference on Business, Economics, Finance and Innovation

"Opportunities and Challenges for Global Business in Real-Time Economy"

July 9th, 2020

Graduate School of Commerce, Burapha University

(Online conference by Zoom Meeting)

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08.30-09.00 a.m. Registration

09.00-09.10 a.m. The conference reporting by Assistant Professor Dr. Rapeeporn Srirumpa, Dean of Graduate School of Commerce

09.10-09.20 a.m. The welcome speech by Associate Professor Dr. Watcharin Gasaluck, The President of Burapha University. (Waiting for confirmation)

09.30-10.00 a.m. The official opening ceremony and remarkable speech and 1st keynote speaker by Associate Professor Somnit Siltarn, Permanent Secretary for Ministry of Higher Education, Science, Research and Innovation

Topic: "The Impact of the Real-Time Economy on Business Innovation and Sustainability"

10.00-10.30 a.m. The 2nd keynote speaker in topic:

"The Impact of the Real-Time Economy on Business Innovation and Sustainability"

by Dr. Mike Pfarrer, Department of Management and Associate Dean for Research and Graduate Programs, Terry College of Business, University of Georgia

10.30-11.00 a.m. The 3rd keynote speaker in topic:

"The Frontier and Challenges of Real-Time Business in ASEAN+9"

by Dr. Mark Huber, Senior Lecturer in the Department of Management Information Systems, Terry College of Business, University of Georgia

11.00-12.00 a.m. Academic articles presentation in three rooms.

12.00-01.00 p.m. Lunch time

01.00-04.00 p.m. Academic articles presentation in three rooms and closing ceremony

Remark: The above schedule time might be changed in unanticipated situation
Oral Presentation Schedule, Room 1

The 11th ASEAN+9 International Conference on Business, Economics, Finance and Innovation
“Opportunities and Challenges for Global Business in Real-Time Economy”
July 9th, 2020  Graduate School of Commerce, Burapha University, Online conference by Zoom Meeting

Committee: Associate Professor Dr. Khanyapuss Punjaistsri, Dr. Danupon Sangnak, Dr. Chin Hon Choong and Dr. Supasit Lertbuaspin  Moderator: Dr. Rachata Channoi

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<td>1</td>
<td>1.00 – 1.30 p.m.</td>
<td>Sonam Choden, Anna Stepanova</td>
<td>BHUTANESE TOURISTS’ MOTIVATION AND SATISFACTION IN THAILAND AS A TOURIST DESTINATION</td>
</tr>
<tr>
<td>2</td>
<td>1.30 – 2.00 p.m.</td>
<td>Chhat Bunsreyleng</td>
<td>FACTORS INFLUENCING ONLINE PURCHASE INTENTION AMONG CONSUMERS IN PHNOM PENH, CAMBODIA</td>
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<td>3</td>
<td>2.00 – 2.30 p.m.</td>
<td>Suthasinee Susiva, Juthamas Vadhanapanich</td>
<td>WHAT ARE THE DIFFERENCES BETWEEN CUSTOMER EXPERIENCE AND USER EXPERIENCE BASED ON PRACTICAL AND ACADEMIC PERSPECTIVES</td>
</tr>
<tr>
<td>4</td>
<td>2.30 – 3.00 p.m.</td>
<td>Ms. Jutamas Namwongsri, Mr. Panya Maneesai, Dr. Supichaya Meesad</td>
<td>A STUDY ON IMPACTS OF PACKAGING ON OTOP PRODUCTS AMONG TOURISTS IN PHITSANULOK</td>
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<tr>
<td>5</td>
<td>3.00 – 3.30 p.m.</td>
<td>Chanthawat Siribonwontak</td>
<td>CREATIVE TOURISM PROMOTION AND MANAGEMENT BASED ON LOCAL TEXTILE PRODUCING COMMUNITIES</td>
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<td>6</td>
<td>3.30 – 4.00 p.m.</td>
<td>Zhao Ti</td>
<td>DEVELOPMENT CHARACTERISTICS AND RESTRICTION FACTORS OF CROSS-BORDER E-COMMERCE OF AGRICULTURAL PRODUCTS TRADE IN CHINA-</td>
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<td>1</td>
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<td>Zhou Shuangyan</td>
<td>RESEARCH INTO THRESHOLD EFFECT OF TECHNOLOGICAL INNOVATION CONCERNING IMPACT OF URBANIZATION ON THE DEVELOPMENT OF COMMERCIAL CIRCULATION INDUSTRY</td>
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<td>2</td>
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<td>Hong Kimhour</td>
<td>FACTORS INFLUENCING ENTREPRENEURIAL INTENTION OF PHNOM PENH CITIZEN, CAMBODIA</td>
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<td>3</td>
<td>2.00 - 2.30 pm</td>
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<td>A PRELIMINARY STUDY ON THE ACCEPTANCE LEVEL OF PEER-TO-PEER (P2P) LENDING AMONG THE FINANCIAL INVESTORS IN MALAYSIA</td>
</tr>
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<td>4</td>
<td>2.30 - 3.00 pm</td>
<td>Suthawan Marayath, Eugenia Arazo Boa</td>
<td>FACTORS AFFECTING THE SELECTION OF HIGHER EDUCATION INSTITUTIONS OF STUDENTS IN THE LOWER NORTH OF THAILAND</td>
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<td>5</td>
<td>3.00 - 3.30 pm</td>
<td>Inez Khoo, Sze-Yumm, Ng, Kar-Yee, Lee, Zhi-Cheng, Seah, Chiu-Jie</td>
<td>IMPACT OF GOVERNANCE INDICATORS ON FOREIGN DIRECT INVESTMENT INFLOWS</td>
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<td>6</td>
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<td>Peng Cong</td>
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**The 11th ASEAN+9 International Conference on Business, Economics, Finance and Innovation**  
*Opportunities and Challenges for Global Business in Real-Time Economy*  
July 9th, 2020  
Graduate School of Commerce, Burapha University, Online conference by Zoom Meeting

**Committee:** Dr. Eugenia A. Boa, Dr. Chananyoo Tintabura, Mr. Hridaysh Desipanda  
and Assistant Professor Dr. Sarunya Lertputtarak

**Moderator:** Ms. Wilailuk Khamloy

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<td>1</td>
<td>1.00 – 1.30 pm</td>
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<td>2</td>
<td>1.30 – 2.00 pm</td>
<td>Chinnakrit Hongamurak, Dr. Eugenia Arazo Boa</td>
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<td>3</td>
<td>2.00 – 2.30 pm</td>
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<td>THE VIABILITY OF WASTE PICKING AS A COPING MECHANISM FOR THAI PEOPLE DURING THE COVID-19 CRISIS</td>
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<td>4</td>
<td>2.30 – 3.00 pm</td>
<td>Wei Ji Yun, Leong, Kai Wah, Hen</td>
<td>EMPLOYEES' PERCEPTION ON DETERMINANTS THAT AFFECTING ORGANISATIONAL PERFORMANCE AMONG MANUFACTURING FIRMS IN MALAYSIA</td>
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<tr>
<td>5</td>
<td>3.00 – 3.30 pm</td>
<td>Leci Qinying</td>
<td>STUDY ON GLOBALIZATION PROCESS, PROBLEMS AND COUNTERMEASURES OF CHINA MOBILE</td>
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<td>6</td>
<td>3.30 – 4.00 pm</td>
<td>LI Yan</td>
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SATISFACTION ON THE WELFARE BENEFITS OF OLDER PEOPLE IN PHITSANULOK CITY, THAILAND

Chinnakrit Honganurak¹, Eugenia Arazo Boa²

¹ Naresuan University International College, Naresuan University, Phitsanulok, 65000, Thailand
² Naresuan University International College, Naresuan University, Phitsanulok, 65000, Thailand

ABSTRACT

The purposes of the study were to explore the satisfaction on welfare benefits of older people and the benefits that should be provided to them in Phitsanulok City, Thailand. The researchers conducted a quantitative research by using questionnaire as a tool to collect data from 395 participants who are the older people in the city of Phitsanulok. The statistics used for data analyzing was descriptive statistics including percentages, frequency, mean (µ) and standard deviation (S.D.). The results show that most of the older people were female. The researchers found that the older people rated the highest, receiving information before receiving premiums every time (µ = 4.13); the lowest mean (µ) is the government agencies helped improved the well-being of the elderly (µ = 2.52) and the amount of living allowance is appropriate. Furthermore, the older people expressed welfare benefits that must be added such as medical allowance (68.1%) and caregiver allowance (47.1%).

Keywords: satisfaction, older people, welfare benefit, aging population, Thailand

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Chinnakrit Honganurak:
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Introduction

This research is to study on the "Satisfaction on the Welfare Benefits of Older People in Phitsanulok City, Thailand." Nowadays, Thailand has an increasing elderly people (Department of Older Person Thailand, 2018) which will have an impact on the current Thai society structure. Thailand is one of the countries in the Southeast Asia with high number of elderly or older people. As a result, it is expected that it will pose challenges and opportunities in the country.

Welfare benefits refer to the financial assistance (Collins Dictionary, 2020) or government support to the society. Welfare attempts to provide a minimal level of well-being to citizens of a certain country to alleviate the life of its citizens (The New Fontana Dictionary of Modern Thought, 1999). In Thailand, there are several types of welfare insurance which can be found in the Labor Protection Act (1998) and the Social Security Law (1990). In particular, the employee welfare fund in the Department of Labor Protection and Welfare aims to be a supporting fund for employees in case of termination of employment or death, or in any other case as prescribed by the Employee Welfare Fund Committee (Sec. 126, Labor Protection Act, 1998). For the elderly in Thailand, welfare benefits can be found in The Act on Older Persons. This law, and is likewise enshrined in Section 54 of the Constitution of the Kingdom of Thailand which provides that the elderly have the right to receive aids from the State.

The family in Thailand is more of a nuclear family. Families tend to take care of their elderly and not bringing them to the home care or nursing homes unlike the western countries. However, some poor families sometimes neglect and abandon their elderly parents/aunts/uncles/siblings because they do not have the financial means to support them. Abandoned without care is a social problem that the state has not been able to resolve for those seniors thoroughly. Day by day, the number of seniors has increased every year, even though the state currently has agencies that provide care in welfare for those elderly people but still not thoroughly and fairly to the elderly. The main issue in Thailand is that, there is no support for the older people medical needs, and no legislation protecting the older people. The government's policy on payment of allowance to elderly is an interesting issue in the country for the elderly to receive care and help to alleviate suffering and have access to appropriate benefits. By investigating the satisfaction level of older people on the welfare benefits that they receive from the government, this study will provide significant information on how to improve the support to the needs of older people. Also, the participants were asked the benefits that should be provided for them. Similarly, this study will contribute to the background knowledge about older people in Thailand.

The elderly population in Thailand is increasing faster in terms of number and ratio per population the country that is caused by two main factors namely, medical development and health policy and family planning that caused a significant reduction of the population. Family planning policy to reduce birth was a success but with a tremendous contribution on the number of aging population. The quality of public health services results in the Thai population's longevity at a rapid rate. Such impacts make the Thai population structure very difficult in the future.
Senior individuals in Thailand are called “older people” who have attained the age above complete sixty years and are of Thai nationality (Sec. 3, The Act on Older Persons, 2003). The law is very specific on the age of older people. Despite the increasing number of older people in Thailand, it can be noticed that the country is not ready yet to provide welfare for the elderly. There is no medical care for the older people when they get sick. There is an allowance of 600 Baht per month provided for the older people. It is a meager amount, which is not enough to cover a meal per day for one month. An older person has less capacity to do things and support themselves. As such, the family will be responsible for medical, housing, food and other basic necessities.

There are several studies about older people in Thailand, however, there are few on the satisfaction on welfare benefits of older people in Thailand. As such, in order to fill the gap, the researchers decided to conduct this study.

Objectives of the study
The objectives of this study are as follows:
1. To explore the satisfaction level on welfare benefits of older people in Thailand.
2. To know what are the benefits that older people in Thailand should have.

Conceptual framework

There are four (4) aspects of the research which were covered in this and can be used to define the conceptual framework as follows:

Independent variable

<table>
<thead>
<tr>
<th>General information of elderly who receive Allowance Gender Age Education level Income Status Career</th>
</tr>
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</table>

Dependent variables towards paying premiums 4 aspects of survival
1. Equal services
2. On-time services
3. Providing adequate services
4. Ongoing services

Satisfaction Level of Older People

Figure 1 Conceptual framework
Literature review

*Concepts and Theories about Satisfaction*

Maslow's hierarchy of needs (Phanmanee, 2001: 188) has arranged the sequence of human needs into five (5) sequences as follows:

1. **Physical needs (Physiological Needs)**
   - The body side is the initial requirements for survival, such as the need for food and water. It also includes housing, clothing, medicine, leisure needs and sexual desire.
   - It is further explained that the physical needs will greatly influence the behavior of people only when the body has not yet responded and in this area, every organization usually responds; and the needs of each person indirectly are to pay wages.

2. **Security or safety requirements (Security or Safety Needs)**
   - If the physical needs have been met, humans will seek the next level, the need for safety or stability. Security requirements will be about protection. To ensure safety from various dangers that occurs to the body. As for it is still refers to the need for stability in life, such as stability in the job.

3. **Social needs (Social or Belongingness Needs)**
   - A higher need will arise after satisfying the safety need. It will start as an incentive for the behavior of people. It is about living together and being accepted by other people and having the feeling of being a part of a social group.

4. **The need to have a social status (Esteem or Status Needs)**
   - The next level will be the desire that consists of the following things: self-determination in in terms of ability, knowledge and importance in them, including the need to have a dominant position. It also means being accepted by another person or wanting to give other people praise for responsibility in job duties, or important positions in the organization.

5. **The need to be successful in life (Self-actualization or Self-Realization)**
   - The highest level of human needs is the desire to experience. This refers to success in life according to thoughts or expectations, ambition, dream of wanting to receive the result of the exaltation. It can be said that Maslow's theory suggests that human needs arise after the lower level of needs have been satisfied. Welfare benefits provided for the elderly can be classified as the security requirements.

*Welfare Laws for the Elderly*

The Constitution of the Kingdom of Thailand (2007, page 25 referred to in Kittipop Phan-am, 2008) provides protection for promotion and support towards benefits of the elderly which states that, Section 17 of the 2017 Constitution of the Kingdom of Thailand states that the State shall provide assistance to the elderly and allocate funds for them.

Section 27 states that the State in order to eliminate an obstacle to or to promote persons' ability to exercise their rights or liberties on the same basis as other person or to protect or facilitate children, women, the elderly, persons with disabilities or underprivileged persons shall not be deemed as unjust discrimination under paragraph three.

Furthermore, the Act on Older Person (2003, by the origin of Article 53 of the Constitution of the Kingdom of Thailand stipulates the rights of the elderly to be entitled to receive State aid in order to comply with the law and to obtain comprehensive laws Section 11 the elderly has the right to be protected. Promotion and support in the following aspects:

1. Medical services and public health
provided by convenience and fast to the elderly as a special case
2. Education, religion and information that are useful for living
3. Occupation or professional training that is appropriate
4. Self-development and participation in social activities.
5. Facilitation and safety directly to the elderly in the building vehicles or other public services
6. Assistance in vehicle fares as appropriate
7. Exemption of admission fees for state locations
8. Helping the elderly who are harmed by abuse or being sought Illegitimate or neglected benefits
9. Providing advice, advising on other actions related to the case or in the corrections family issues
10. Housing arrangements Food and clothing as needed thoroughly
11. Provision of living allowance according to the necessity and must be thoroughly and fairly
12. Relief for traditional funeral arrangements
13. Other activities as specified by the Board of Directors (Social Welfare Promotion Act, 2003).

Older People in Thailand
The elderly age is the age that is in the last phase of life. Characteristics and development at this age are opposite to childhood, i.e. only the decay and wear this change will continue gradually. Therefore, it is difficult to determine whether any person is the elderly under the social criteria determines that any person is an elderly person will vary according to social conditions in which people have the definition of the elderly. (Hall, 1976, referred to in Monrudee Srisuk, 2002, page 12), divided the elderly into four (4) categories:
1. Aging according to age (Chronological Aging) means aging according to the calendar year by counting from the year of birth onwards and immediately are considered older people.
2. Biological Aging is considered the aging of the physical and physiological condition of the person who changed when age increases due to work efficiency of the organs in the body is reduced as a result of degradation according to the aging process to the individual's life expectancy.
3. Psychological Aging is a change in duty perceived concepts, learning needs, intelligence and personality traits appearing at different stages of each person's life
4. Sociological Aging is a change in roles, duties, status of people in the social system including the expectations of the society to that person which is related to the age, expression of value and needs of society. In determining how old the elderly is depending on the differences in each society. For Thai society, it is determined that the elderly means people who are Thai nationals and have age 60 years or more (The Elderly Act, 2003). However, the elderly is not all the same, but will vary according to age. With the following age brackets:
1. Elderly, aged between 60-74 years
2. Old people (Old) aged between 75-90 years
3. Very Old people aged 90 years and over.

According to the Ministry of Social Development and Human Remedies by the Office of Welfare and Promotion elderly subsistence allowance is classified according to four age groups as follows
and will receive the monthly allowance as follows:

1) The elderly aged 60-69 years will receive a living allowance of 600 baht.
2) The elderly aged 70-79 years will receive a living allowance of 700 baht.
3) Elderly aged 80-89 years will receive a living allowance of 800 baht.
4) Seniors aged 90 years and over will receive a living allowance of 1,000 baht.

In this study, elderly aged 60-69 years old were the focused of the study as they comprise the highest number of older people in Phitsanulok City. Therefore, the age group surveyed in this study is currently receiving welfare benefits amounting to 600 Baht per month.

Related Research
According to Knodel, Teerawichitchainan, Prachuabmoh & Potthisiri (2015), the aging of the population has not escaped the attention of the Thai government. As a matter of fact the previous (1997-2001) and current (2002-2021) National Economic and Social Development Plans explicitly mentioned older persons. The Act on Older Persons was promulgated in 2003 and according to the above mentioned authors the law provides “convenience and expedient medical and health services, employment and vocational training, discounted transportation fares, exemption from entrance fees at government parks and facilities, assistance for those abused, illegally exploited, or abandoned, assistance with funeral expenses, and privileges accorded to their children who look after them.”

Research methodology
Quantitative study
This is a pure quantitative study focusing on the satisfaction level of older people in Thailand toward the welfare benefits they are receiving.

Research Instrument
Study theories, concepts and related research from various documents in order to develop the questionnaire. The satisfaction levels of the older people were surveyed toward the welfare benefits they are receiving from the government. A questionnaire was used in gathering data.

Population and Sample
The population used in this research was the elderly who received a living allowance in the community area of Phitsanulok Municipality, which is 60-69 years old. There is a total of 23,892 older people in the city of Phitsanulok. Taro Yamane formula was used in determining the sample of the study. 393 older people in the city of Phitsanulok were chosen to answer the questionnaire. Purposive sampling was used in determining the sample group.

Formula

\[ n = \frac{N}{1 + Ne^2} \]

n= Sample size
N= Total of population
e = the acceptable sampling error
n = 23,892/(1+(23,892*0.05/2))
= 23,892/(1+59.73)
= 23,892/60.73
n= 393.41
The researcher used 393 people of sample

Data Analysis
After the researchers collect the data from the questionnaires which were distributed to the older people in Phitsanulok City, Thailand. The researchers used SPSS program to measure. This study was
A descriptive study that analyzed the collecting data and the results that show by SPSS program are mean (\(\bar{x}\)), Standard Division (S.D.), frequency, and percentage.

**Results**

Table 1 Gender of respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>147</td>
<td>37.22%</td>
</tr>
<tr>
<td>Female</td>
<td>248</td>
<td>62.78%</td>
</tr>
<tr>
<td>Total</td>
<td>395</td>
<td>100%</td>
</tr>
</tbody>
</table>

The above table shows the gender of respondents who participated in the survey. The frequency of male respondents is 147 respondents (37.22%) and female respondents are 248 respondents (62.78%). There are older person who are female than male.

Table 2 Age of respondents

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 60-64 years old</td>
<td>109</td>
<td>27.6%</td>
</tr>
<tr>
<td>2. 65-69 years old</td>
<td>136</td>
<td>34.4%</td>
</tr>
<tr>
<td>3. 70-74 years old</td>
<td>112</td>
<td>28.4%</td>
</tr>
<tr>
<td>4. 75-79 years old</td>
<td>33</td>
<td>8.4%</td>
</tr>
<tr>
<td>5. More than 80 years old</td>
<td>5</td>
<td>1.3%</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

The above table shows the age of respondents. Most of the respondents' lies in the age range of 65-69 year which is equivalent to 136 respondents 34.4%, the second were 112 respondents were age from 70-74 year (28.4%), and the third were 109 respondents were age from 60-64 years (27.6%).

Table 3 Satisfaction Level on Welfare Benefits of Older People

<table>
<thead>
<tr>
<th>Question</th>
<th>N</th>
<th>Mean ((\bar{x}))</th>
<th>Std. Deviation</th>
<th>Meaning</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. On the service side</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 There are various service channels in providing the allowance to the older people.</td>
<td>395</td>
<td>4.06</td>
<td>1.18</td>
<td>Agree</td>
<td>2</td>
</tr>
<tr>
<td>1.2 The schedule of distribution of premiums is appropriate.</td>
<td>395</td>
<td>3.83</td>
<td>0.91</td>
<td>Agree</td>
<td>3</td>
</tr>
<tr>
<td>1.3 Can facilitate the service.</td>
<td>395</td>
<td>3.67</td>
<td>1.01</td>
<td>Agree</td>
<td>7</td>
</tr>
</tbody>
</table>
2. In terms of providing timely service per time

<table>
<thead>
<tr>
<th>2.1 Receive information before receiving premiums every time.</th>
<th>395</th>
<th>4.13</th>
<th>1.01</th>
<th>Agree</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2 The service is convenient.</td>
<td>395</td>
<td>3.73</td>
<td>0.96</td>
<td>Agree</td>
<td>5</td>
</tr>
<tr>
<td>2.3 Receiving direct allowance according to the schedule.</td>
<td>395</td>
<td>3.71</td>
<td>1.10</td>
<td>Agree</td>
<td>6</td>
</tr>
</tbody>
</table>

3. Policy on administration of elderly allowance

| 3.1 The purpose of providing the elderly allowance is to allow the elderly to live as they should. | 395 | 4.01 | 1.00 | Agree | 3 |
| 3.2 Agencies have procured budget to pay for the elderly's living allowance. | 395 | 3.71 | 0.91 | Agree | 6 |
| 3.3 The information for the elderly is always available. | 395 | 3.48 | 1.20 | Neutral | 9 |
| 4. The management of the elderly allowance is effective. | 395 | 3.48 | 0.87 | Neutral | 9 |

4. The effectiveness of the management of the elderly allowance

| 4.1 The policy has changed the working pattern to meet the needs of the elderly in the local area. | 395 | 3.77 | 1.12 | Agree | 4 |
| 4.2 Overall, the elderly is satisfied with the service provided by staff and agencies. | 395 | 3.34 | 1.08 | Neutral | 10 |
| 4.3 Receiving allowance for living allow the elderly to have a better quality of life. | 395 | 3.20 | 1.20 | Neutral | 12 |
| 4.4 Living allowance of 600 baht is appropriate. | 395 | 2.73 | 1.16 | Neutral | 13 |
| 4.5 Agencies helped improved the well-being of the elderly. | 395 | 2.52 | 1.23 | Disagree | 14 |

5. Medical drug and food support

| 5.1. The medicine support is sufficient. | 395 | 3.62 | 1.11 | Agree | 8 |
| 5.2. The food support is sufficient. | 395 | 3.48 | 1.04 | Neutral | 9 |
| 5.3 I need additional food and medicine support. | 395 | 3.24 | 1.14 | Neutral | 11 |

Total 395 | 3.54 | 1.08 | Agree |
The above table 5 shows that the mean (x̄) and Standard Deviation (S.D) of benefit of older people (Number of respondents = 395). The total average mean (x̄) and standard deviation (S.D) are x̄ 3.54 and SD 1.08. The highest mean (x̄) is receiving information before receiving premiums every time (x̄ 4.13) and the lowest mean (x̄) is agencies have explored the well-being of the elderly (x̄ 2.52). The highest Standard Deviation (S.D) is agencies have helped improve the well-being of the elderly (S.D: 1.23) and the lowest Standard Deviation (S.D) is the schedule of distribution of premiums is appropriate (SD: 0.91).

![Figure 4: Welfare Benefits that should be added](image)

Figure 4. Welfare Benefits that should be added  
The above figure shows the welfare benefits that should be added according to the respondents. Medical allowance (68.4%) is the number concern of respondents followed by caregiver allowance (47.1%), food allowance (19.7%), and lastly, housing allowance (6.1%).

**Discussion**  
According to the study, the researchers found that the satisfaction level of older people varies from 359 respondents. This is explained by their varied age, gender, income and status. The gender of respondent had female more than male, 147 about 37.22% of respondent and female was 248 about 62.78% of respondent. For the age, researcher separated in to five age groups, 60-64-year-old was 109 around 27.6% of respondents and 65-69 was 136 around 34.4% and 70-74 was 112 around 28.4% and 75-79 was 33 around 8.4% and more than 80 was 5 around 1.3% of respondents. The part of income of respondent had five group first group was 10,000-15,000 Bath was 48 around 12.2% of respondents, second group 5,001-10,000 Bath was 60 around 15.2% of respondents, third group last than 5,000 was 161 around 40.8% of respondents, fourth group more than 15,000 Bath was 49 around 12.4% and the last group no income was 77 around 19.5% of respondents. For the status of respondent part researcher separated in to four group of status first single was 68 around 17.2% of respondents and married was 255 around 64.6% and divorce was 14 around 3.5% and the last separated was 58
around 14.7% It showed that Phitsanulok have older people different age, gender, status and income and it was the collected choice for doing the research.

According to Beach (1989) people’s satisfaction with the public service shows how to measure satisfaction assessment of performance provide services of local government unit services.

The study, as regard the service side, the older people in Phitsanulok agree with the research in terms of providing timely service. From 395 respondents, the highest mean (\bar{x}) is the older people receive information before receiving premiums every time because the staff of the service providers pay by customer service with a smile, friendly, courteous and non-discriminatory and there are notified news releases at all times (\bar{x} 4.40). The lowest mean (\bar{x}) is agencies have helped improved the well-being of the elderly (\bar{x} 1.23). The highest standard deviation (S.D) is there is a civil society to ask for information on the allowance for the elderly (S.D 1.21) and the lowest standard deviation (S.D) is schedule of distribution of premiums (S.D 0.91). The result clearly shows that the factors effecting the satisfaction of the older people.

It showed that all of employees thought that three questions that on the first rank were be benefit to their older people. Beside four questions in the first rank, other questions rate also high and the rate that be calculated were go to strongly agree. So researchers concluded that from the research the benefits of good service side were important and made a lot of benefit for the older people.

According Chankaew (1995) satisfaction of human beings has two sides; it could be positive feeling or negative feeling. Positive feelings are the feelings that have already happened and causing happiness. The feeling that is different from other positive feelings is the feeling that has a reverse system. And this happiness can be causing more positive happiness as can be seen that happiness is this complex feeling and feeling will affect more people than other positive feelings.

The second part of the survey is about the service side provided to the older people. The mean value (\bar{x}) and standard deviation (S.D) of the effectiveness of the management of the elderly allowance (number of respondents = 395). The respondents to statement in this questionnaire shows maximum tends to stay agree. The total average mean (\bar{x}) and standard deviation (S.D) are (\bar{x} 3.54 and SD 1.08. The management of the allowance of the older people is effective (\bar{x} 3.48) which means they agree. In spite of the low amount provided, it can be seen from the result that the older people either agree or are neutral. This could mean that they have prepared for their stage of older life or they do not have enough understanding or knowledge of the welfare benefits provided for the older people.

Regarding the effectiveness of the management of the elderly allowance, the lowest mean value (\bar{x}) is living allowance of 600 Bath is appropriate (\bar{x} 2.73). The highest standard deviation (S.D) is receiving allowance for living allowance for the elderly to have a better quality of life (S.D. = 1.20) and the lowest standard deviation (S.D) is the elderly is satisfied with the service provided by staff and agencies (S.D 1.24). The result clearly shows as well that they disagree that the government agencies helped improved the well-being of the elderly. It could be inferred that there is not enough existing support from the government regarding this.

Beach (1989 65) mentioned how to
measure people's satisfaction with the public service that how to measure satisfaction assessment of performance provide services of local government units this evaluation is divided into two aspects. Subjective measurement considering the response (Responsiveness) per requirement and public demands considering the equity in the distribution of services to the public.

The last part of the survey is about the welfare benefits on medicine and food support. The respondents expressed agreement on the first two points that the medicine support and food support provided to them are sufficient. This is supported by Maslow’s Hierarchy of Needs (1943) wherein after satisfying the basic need (food), individuals aspire to have the higher needs that might be the reason why respondents agree. However, the results showed contradiction on the second part of the survey. When they asked what welfare benefits that should be added, the highest answer is medical allowance (68.4%). It is supported by some of the studies, Boa (2017), in her study about the greying population with the human resource professionals revealed that they have a narrow view and understanding of the older people. She also stated that, after retirement, upon reaching the age of 60 years old, the older people are not expected to be a part of the workforce if they decided to.

**Conclusion**

This research focused on the satisfaction on the welfare benefits of older people in Phitsanulok with 395 respondents. They were from the different age, gender, income and status. The researcher provided the questionnaire as an instrument in collecting data and found out that they mostly agree in most aspects of welfare benefits of older people in Phitsanulok.

The main findings are as follows. 1) overall, the satisfaction level of the respondents toward the welfare benefits they are receiving is “agree” regarding services and its convenience, administration of allowance, effectiveness of the management of the older people, and medical drug and food support. The second main findings regarding the benefits that should be provided in order are medical allowance, caregiver allowance, food allowance, and housing allowance.

As Thailand is embarking the road to the phenomenon of aging society, the welfare benefits of the older people is an important aspect to look upon. The findings in this study showed contradiction on many points, e.g., the medical support for instance. It gives light to an interpretation that the older people are not conversant with the welfare benefits issues as well as the aging population.

**Recommendations**

The following are hereby recommended:

1. Education for the older people in Thailand regarding the aging society and welfare benefits must be provided. The older people should have an understanding of the mentioned phenomenon.

2. The living allowance provided for the elderly must be looked upon. The Thais are not very expressive as to what they need as they fear it might offend anyone.

**Limitations and recommendations for further study**

1. There was limited time in conducting the study. As such, only a survey was conducted. The answers gathered are limited in depth. It is suggested that a qualitative study should be conducted.
2. Some of the respondents are not willing to participate because they consider it as an intrusion to their privacy. As such, if they have an education of these topics they might become willing to share their ideas and opinions regarding the topic.

3. Additional factors affecting the provisions for services of the elderly must also be studied in order to improve the standard of living of the older people.

4. In providing timely services, more publicity is needed by focusing on matters that the public must be aware of. In doing so, technology must be

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THE VIABILITY OF WASTE PICKING AS A COPING MECHANISM FOR THAI PEOPLE DURING THE COVID-19 CRISIS

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ABSTRACT

Public and private institutions have started ‘zero waste’ campaigns and implemented sustainability policies with an aim to reduce the quantity of waste in the natural environment. Waste has been reclassified as a resource and innovative companies are creating eco-friendly products and data-based solutions through the concept of circularity. Despite these innovations, municipal waste collection services are challenged by the continuous flow of waste and how to dispose and segregate it. In Thailand, waste collection is both a municipal service and a source of income for informal workers. However, little is known about the ways waste picking activities contribute to the livelihoods of Thai people. This work shows the significance of waste picking as a coping strategy for Thai households in the midst of the Covid-19 crisis of 2020. By way of a cross-sectional analysis this research investigated the work of waste pickers at the peak of Covid-19 crisis. This study examines the livelihoods of waste pickers and sheds light on their relationship with commercial recycling centers on the resort island of Phuket. Waste pickers and recycling centers were forced to deal with a significant reduction in collection rates and income as result of the mass exodus of tourists. Notwithstanding, collecting recyclables served as an important source of income in households where family members lost jobs. At the same time, waste pickers put themselves at a great risk of disease and occupational health hazards. Future healthcare plans for Covid-19 should offer an easy to access system to register waste pickers and ensure their ongoing protection.

Keywords: circularity, informal workers, sustainability, livelihoods, recycling, waste pickers

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Introduction

As we near 2030, the United Nations Sustainable Development Goals (SDGs) are proving rather elusive and even possibly unattainable for most countries (Chan et al., 2018). Scholars, government officials and agents of corporate change are struggling to clearly define and measure progress on the SDGs. Private and public institutions have attempted to decrease their carbon footprints through the adoption of novel and disruptive innovations (Kumaraswamy, Garud, & Ansari, 2018). Notwithstanding, the carbon footprints of the largest global cities show that the excessive consumption of goods and services has hindered progress towards many of the SDG goals, particularly SDG12: Sustainable Consumption and Production (Moran, et al., 2018).

While the digital economy has reduced consumption through a decrease in retail spaces, paper usage, and developments in technological efficiency, it has enabled the rapid flow of goods through a new supply chain based around the Internet of Things (IoT). However, the delivery services associated with the IoT have greatly contributed to an increase in packaging waste (Gomez et al., 2019; Savita et al., 2018). This problem has been compounded further by the demand for delivery services by city dwellers quarantined under Covid-19 (Severe Acute Respiratory Syndrome Coronavirus 2) (Castagnoli, 2020; Reuters, 2020).

Notwithstanding, global and local civil society organizations have collaborated with government bodies and the private sector to reduce plastic waste and encourage recycling. Some companies have exploited this opportunity by participating in the creation of a ‘circular economy’ with products, ‘based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems’ (Ellen Macarthur Foundation, 2020). Critical to supporting this new system of production, is the redesign of packaging, containers and bottles for reuse. Leading companies have begun to develop products made from biodegradable materials. Interface, a carpet tiling company, has embarked on a mission to generate zero waste through its manufacturing and take back system (Luqmani, Leach, & Jessen, 2017). However, the learning curve has been slow for most corporate entities. And environmentalists have expressed outrage at the lack of action; and the rising levels of plastics trapped in the natural environment (Paterson, 2019).

While actions have been limited in scope, there has been a call for change in global waste management policies and practices (Singh et al., 2014). Civil society organizations have initiated campaigns that focus on improving the health of global ecosystems through a reduction in waste and environmental pollution. Scientists have documented the specific impacts of microplastics on bodies of water, sea life and human systems (Barboza et al., 2018). Increasingly, the onus has been put upon municipal waste authorities to develop recycling programs and encourage consumer to bring their recyclables to designated drop-off points.

While some countries segregate refuse at the source, little has been done in the less developed nations. Global studies show that Asian countries countries ranked the highest in terms of the mismanagement of plastic waste. Significantly, Thailand has ranked among the highest producers of plastic waste in Southeast Asia (Ritchie and Roser, 2018). While Thailand is an epicenter of industrial growth in the region, it also has a dual focus on eco-tourism. Along these lines, the Thai Prime
Minister, Prayuth Chan-ocha has called for greater protection of the natural environment and made waste management part of his 20-year national strategy (Styllis, 2018). In the government’s most recent initiative Thailand’s biggest retailers were successfully called upon to stop giving out single-use plastic bags at checkout counters (Macan-Markar, 2019). Civil society actors have worked closely with governmental bodies on environmental campaigns to encourage recycling and reduce the level of debris in Thai waterways and oceans. Thailand’s most well known educational institution, Chulalongkorn University has put forth a sustainability policy and initiated a ‘zero waste’ campaign among the faculty and student body. Local entrepreneurs have developed a wide range of eco-friendly products and services. A number of Thai companies have launched digital applications aimed at increasing recycling rates of single-use plastics.

Despite these efforts, Thai municipal waste collection services are challenged by the increase in waste flows; and how to dispose and segregate this refuse. In the developing economy of Thailand, waste collection is both a municipal service and a source of income for informal workers (Doze et al., n.d.). Unfortunately, less has been done to support the informal workers whose efforts reduce waste collection and raise recycling rates (Ferronato & Torretta, 2019). All too often, the informal work of waste pickers goes unrecognized. And as highlighted by Covid-19, how can greater protection be provided to informal workers? This paper explores these questions by examining the perspectives of waste pickers, traders and recycling center owners through semi-structured and structured interviews. Results show the ways diverse stakeholders worked together to support the recycling ecosystem and themselves during the Covid-19 crisis on the resort island of Phuket in Thailand.

**Objectives of the study**
1. To understand the role of waste pickers in the recycling ecosystem.
2. To investigate the ways that waste pickers earn a living and access social services.

**Conceptual framework**

![Conceptual framework diagram](image)

Figure 1. Waste Pickers as a Subset of the Recycling Ecosystem
Hypothesis
1. Waste picking serves as a critical coping mechanism in times of economic crisis and is an integral part of the recycling ecosystem.

Literature Review
Thailand’s Recycling Ecosystem

Thai corporates and multinationals in the region have initiated projects targeted at a market share in the recycling space with innovations based on the concept of ‘circularity’. Siam Cement Group (SCG) has experimented with using plastics and other materials to lower raw material inputs. Technical cooperation between Dow (Thailand) and SCG has yielded a product that incorporates plastic waste into asphalt for road surfaces (Siam Cement Group, 2020).

While the work of local and global companies have had a significant impact on the design and development of products made from recycled materials, other firms concentrate on replacing material inputs. Indorama Ventures (Thailand) has exploited the prevalence of plastic waste in Thailand by incorporating raw materials from polyethylene terephthalate (PET) bottles and other plastics into their manufactured pellets (Indorama Ventures, n.d.). In other words, large recycling manufacturers depend on the constant flow of low-priced plastic waste to sustain production levels. The next rung, is composed of recycling shops of various sizes that have the capacity to consolidate shipments of plastics. This value chain extends down to the entrepreneurs who have vehicles which can carry large amounts of recyclables (Wilson et al., 2006). The last rung is comprised of the waste pickers who make their rounds on the streets of the city and do not have sufficient quantities of recycled materials to sell to the larger recycling centers or manufacturers in Bangkok (Campbell, 2018; UN Escap 2019).

Notwithstanding, Thai government bodies have enacted various policies aimed at the upcycling of by-products to various industries. The Pollution Control Department (2019) has started to document waste flows and recycling rates on an annual basis. Despite positive steps taken by some government bodies, large amounts of plastic waste continue to flow into the major waterways and empty into the Gulf of Thailand (Marks et al., 2020).

A number of Thai and international non-governmental organizations (NGOs) are responding to the call for change. Terracycle (a US based recycling company) is working with local groups to install devices which capture plastic in the canals and tributaries around Bangkok (Terracycle, 2020). At the same time global civil society groups like Trash Heros are seeking to clean up the beaches of Phuket and other resort areas, by mobilizing residents to participate more directly in the removal of ocean debris.

Thai start-up ventures like Trash Lucky and GEPP are increasing the uptake of plastics via innovative digital platforms. These ‘recycling’ start-ups have incorporated informal workers into their efforts to collect recyclables from the streets of Bangkok. These so-called “scavengers” form a critical role in recycling waste that would potentially end up in municipal waste dumps.
Figure 2. Current Flow of Recycling in Thailand (N. Artichartkan, Trash Lucky personal communication, April 18, 2020).

While the work of scavengers enables the uptake of recyclables to the material recovery facility (MRF), the extent of their efforts and their working conditions is hidden from the public eye.

Waste Picking as a Source of Employment: Risks and Benefits

"The millions of people worldwide who make a living collecting, sorting, recycling, and selling materials that someone else has thrown away are referred to by many different terms in different regions. These include scavengers, recyclers, reclaimers, ragpickers, binners, and waste pickers." (WIEGO, 2020).

A number of scholars and supporting organizations have highlighted the work of waste pickers (Campbell, 2008; Dias, 2016; Etambakonga & Roloff, 2019). This body of research has examined many of the risks and benefits of waste picking in countries where relatively little waste is segregated by municipal authorities. And while the work of waste pickers improves management processes at a municipal level, it is considered, "backward, unhygienic and incompatible with modern waste management systems" (Wilson et al., 2006, p.178).

As such, protecting the health of waste pickers is challenging, as they are exposed to disease and occupational hazards on a daily basis. Moreover, waste pickers do not receive personal protective equipment or related training. And as their work is undocumented they are not governed by national laws. Eerd (1996) found that Indian waste pickers are more likely to contract respiratory diseases, diarrhea, viral hepatitis and ailments related to dog bites. Research conducted in the Gaza Strip, shows many of the occupational risks that waste pickers encounter in their work: contact with hazardous chemicals, heavy metals, and sharp objects (Al-Khatib, 2020). Until waste picking is recognized as a formal profession, health authorities and other groups will be unable to develop ways to protect them. Doze (et al., n.d.) point to the need for waste pickers to receive better health and safety protection. Of the many risks encountered by informal workers, recyclers are regularly in close contact with unhygienic conditions. And while all Thai citizens have the right to health coverage in exchange for a 30 Baht co-payment, many informal workers, do not take advantage of the program (Coronini-Cronberg, Laohasiriwong & Gericke, 2007). Significantly, the COVID-19 pandemic raises questions about the need to ensure that all levels of society have access to proper healthcare.

Fortunately, research on waste pickers has become global in scope and studies are communicating better ways to protect and serve this somewhat ‘invisible’ workforce. Although earning are critical, research suggests the need for support aimed at building associations, training
and giving greater legitimacy to waste pickers (Doze, et al., n.d.).

Furthermore, many undocumented workers benefit from the informal economy around waste (Campbell, 2008). Recycling provides a source of income that requires no formal training, identification cards or educational certificates. That is to say, it provides a ready income for those willing to engage in this work.

At the writing of this article, studies had yet to capture the extent of unemployment caused by Covid-19 in the resort areas of developing countries. Despite the absence of published data, key informants reported a dramatic drop in the tonnage per day of recyclables received. And as this research will show, waste picking served a role, not unlike the agricultural sector did in absorbing excess labor during the 1996-1997 Asian economic crisis (Lauridsen, 1998).

**Research methodology**

This paper draws upon mixed methods to examine the ways that recycling centers owners and waste pickers participate in the recycling ecosystem. By way of a cross-sectional analysis this research investigated the work of waste pickers at the peak of Covid-19 on Phuket Island. Initial research steps are best described as ‘qualitative’. That is to say, data was collected through face-to-face interviews using a set of semi-structured questions (Creswell 2003). “Grounded Theory” approaches were used to draw out areas of concern from key informants and to develop a focused set of interview questions for use with waste pickers (Glaser, 1978). The entire analysis was influenced by key informants, observations on-site and ongoing interviews with recycling center owners and waste pickers. Each phase of this research was “sequential” in that it was built upon the prior stage of study (Creswell, 2003).

**Scope and Sample Size**

To carry out the entire research, this study was comprised of interviews with 3 distinct groups of recyclers: 2 recycling center owner-managers, 3 traders and 20 waste pickers. While the size of sample population was small it was justified based on the scope of the study and objectives. Furthermore, it was the researcher’s intent to conduct a cross-sectional study during the Covid-19 crisis in Phuket.

While the manufacturers were not part of the scope of this study, a recycling center owner reported that many were not interested in being the subject of news stories or research. That is to say, many manufacturers would prefer not to raise the ire of environmental groups or the attention of government officials.

**Research Steps**

The initial research design was decided upon after conducting unstructured interviews with a broad range of recycling entrepreneurs at Plasticity: Sea of Solutions Conference, November 11-14, 2019 in Bangkok, Thailand. During this event, the researcher was able to interview social innovators and manufacturers about...
the challenges of raising recycling rates and reducing the incidence of plastics in the natural environment. While presenters spoke frequently about consumers, there was little mention of the work of the waste pickers that depended upon the existence of single-use plastics. To further explore this gap, it was decided to investigate the informal work processes that took place within the confines of the more structured ‘recycling ecosystem’.

Interviews with recycling center owner-managers were conducted in English. For the traders and waste pickers, interviews were conducted in Thai. It should be noted that one waste picker from Myanmar also participated in the study, but he was fluent in the Thai language.

As the researcher was confined to Phuket Island during the government lockdown in April through May 2020, it was decided to carry out this study at local recycling centers. A Google Maps search of Phuket for ‘recycling centers’ uncovered a number of locations. These locations were narrowed down to one smaller location in proximity to the researcher’s home and one of the larger centers on the island. A few other centers were approached, but the first two were selected as they showed an interest in participating in interviews. It was also agreed that information collected would be confidential. More importantly, they granted permission to approach their customers onsite. It was decided with recycling center managers to conduct interviews with participants near their ‘gates’. These recycling centers were located in Kathu and Chalong District, Phuket Province.

While the scope of this research is limited. The decision to select two centers was due to financial constraints, proximity and the desire to capture a snapshot of the economic pressures imposed on Phuket residents at the height of the Covid-19 crisis. As such, the study centered around the two pre-selected recycling centers and their customer base.

Prior to interviewing customers, the owners of the recycling center participated in in-depth interviews. This was an important step in this research as the recycling centers managers provided a detailed overview of the waste recycling ecosystem on Phuket, their supply chain, and commercial interactions with customers.

While there was a broad range of customers, observations showed that the predominant group of waste pickers were individual entrepreneurs driving 3-wheel vehicles (a motorbike with an iron side car) or salengs in the Thai language. Along these lines, purposive sampling was decided upon as the participants were all customers of the recycling centers. Research was conducted face-to-face interviews in the Thai language.

Development of Interview Protocol

As a first step in this research, interviews were conducted with recycling center using a semi-structured questionnaire as follows:

- How do you determine the pricing of recyclables?
- Where do you sell your recyclables?
- In the last 3 months (during Covid) have you experienced a decrease or increase in recyclable materials?
- What other impacts has Covid-19 had on your business operations?
- Do you keep data on the number of salengs that deliver to your center?

In-depth interviews with recycling center owners were a key source of data and helped the researcher to generate questions that were pertinent to the lives of participants. Moreover, business operators...
had been severely interrupted by Covid-19. That is to say, Covid-19 emerged as a central theme in this study.

Interviews with recycling center owner-managers help in developing the scope of the study. Their responses also confirmed the importance of saleng operators (referred to in this research as ‘waste pickers’) to maintaining waste flows. Notwithstanding, there was another class of entrepreneurs that owned pickup trucks and purchased goods from hotels, retail shops and households. It was decided to interview a smaller number of these entrepreneurs to further comprehend their role in the system.

Based on the aforementioned data and onsite observations, it was decided to focus subsequent interviews on the waste pickers driving a saleng. Only informants who were found on location with their salengs filled with recyclables were selected for interview. Participants were engaged in open and closed-ended interviews about the ways they collected recycled materials, their family support system, financial concerns (before and during COVID-19), earnings and ability to access health and social services:

1. Which province do you come from?
2. How old are you?
3. How long have you been collecting trash?
4. Do you do this full time?
5. Do you have other types of job(s)?
6. Do you collect trash everyday?
7. Can you estimate daily, weekly or monthly earnings?
8. Did the COVID crisis effect your earnings over the last 3 months?
9. Did your income go up or down in the last year (before COVID)?
10. Do you support others with your income?
11. Which recycled items do you collect?
12. Where do you sell your recyclables?
13. Do you collect social security, have access to healthcare or other benefits?
14. Why did you start collecting trash?

The majority of interviews took place as they queued to drop-off waste and as they awaited payment. Some participants shared the information on payment slips. As such, it was possible to validate responses related to participants’ pay on the day of the interview. Suffice to say, it was challenging for many participants to report on the amount of money they received per day or per week (they appeared more comfortable reporting their earnings by month). In addition, questions that requested participants to report on the specific details of the recyclable items they collected were challenging for them to answer. The most common response was ‘all things’ meaning metal scraps of different types, plastic (PET) bottles, beer bottles or anything else that they believed would fetch a decent price at the recycling center.

Data Analysis

In the first step, data from interviews with key informants (recycling center owners) was compared and analyzed along with secondary data from previous studies of waste pickers in Thailand (Chan, et al. 2018, Doze, et al., n.d.).

The next step entailed an analysis of the variables that affected waste pickers livelihoods (e.g. earning, other jobs, access to healthcare and other benefits). After 15 waste pickers were interviewed, it was found that the responses became repetitive. However, a subsequent round of 5 interviews was conducted which continued to yield no new information,
similar to what Glaser (1978) describes as “theoretical saturation.” After interview data was compared and contrasted with narrative data from recycle shop owners to check for sub-themes or emerging categories (Charmaz, 2006).

In the second stage of analysis, data from structured interview questions was used to show the differences between participants. Descriptive statistics were selected to better illustrate and examine these differences. Notwithstanding, narrative data from responses to open-ended questions was complemented by the use of descriptive statistics. The entire analysis of the data through a sequential exploratory design provided further validity to the research (Creswell, 2003).

Results

The participants in this study came from distinctive socio-economic backgrounds: recycling center owners, traders (with pickup trucks), and waste pickers (with salengs). Each type of supplier was integrally linked to the recycling ecosystem and dependent on the top tier manufacturers. Similarly, each group sought to maximize the quantity of waste collected and sought to sell it at the highest price. To unravel the differences among these groups, interviews were conducted with each level. Interviews with the owners of the recycling centers were critical to understanding the value chain. It was explained that there was a ‘hierarchy of suppliers’ that support the waste recycling ecosystem in most Thai provinces.

Table 1. Hierarchy of the Recycling Business

<table>
<thead>
<tr>
<th>Level</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owners</td>
<td>Steel (30%), Paper (50%), Plastics (50%), Copper/Aluminum (10%)</td>
</tr>
<tr>
<td>Traders</td>
<td>Copper/Aluminum (10%), Steel (10%), Paper (30%), Plastics (50%)</td>
</tr>
<tr>
<td>Pickers</td>
<td>Fishing Gear (1%), Steel (1%), Paper (30%), Plastics (50%)</td>
</tr>
</tbody>
</table>

At the top of the hierarchy were the manufacturers that purchased recycled materials as inputs to make ‘new’ products. Recycling centers purchased a wide range of recyclables from those at the bottom level. There were a number of traders who drove pick up trucks and had the financial resources to buy recyclables from hotels, shop owners and consumers. At the bottom rung, are the waste pickers who primarily carry products to the recycling centers on salengs, but some by motorcycle or on foot.

Covid-19 Impacts on Recycling Centers

At this phase of the study semi-structured questions were designed to uncover the impact of Covid-19 on the recycling industry. Key informants were asked to discuss the ways that Covid-19 affected their business; and how they interacted with their customers and the large suppliers who purchased their recyclables. Most of the recycling centers had been severely affected by the crisis reporting a decrease of nearly 50% in the quantity of materials being sold to their facility. Moreover, there was a drop in the price of some specific types of recyclables and the overall demand in the marketplace. It was explained that the prices of plastic also are linked to global petroleum, with metal prices functioning similarly. As such, the owners need to follow the pricing of metals and other commodities in the marketplace before setting prices for their customers.

In terms of overall collection, a rough estimate was given of the most popular recyclables: 1% or less fishing gear, 10% copper/aluminum, 10% steel, 30% paper, and 50% plastics. It was explained that these goods are compacted using various machinery, then once in an easily shippable ‘block’, they are sold to various agents and factories which arrange for pick up from their facility. The market includes construction materials (mainly from scrap metal) that are re-manufactured into ‘new’ goods.
While formal permission to discuss the relationship between the recyclers and municipal waste authority was not obtained, key informants and waste pickers did not report any tension between them. Some of the waste pickers interviewed stated that they worked for the municipality and collected waste in their spare time. In addition, on several occasions, municipal waste collectors were observed with a large bag positioned on the back end of their garbage truck, in order to gather recyclables on their rounds. It should be noted that in Thailand there is no official requirement to separate waste at private residences.

Significantly, recycling centers in Phuket were forced to close for several weeks during the initial quarantine and lockdown period in April 2020. One key informant spoke about the sudden decrease in volume. Sadly reporting that the queues of vehicles at the gates of his facility had disappeared. However, directly after reopening facilities in May, he reported an initial increase in collection rates (which was due to the period when waste pickers had no place to sell their goods). Then there was a subsequent drop of 50%, which he felt was due to the exodus of tourists from the island.

The Demographics and Livelihoods of Waste Pickers

The sections that follow exhibit the demographic variables, family and financial status of waste pickers through narrative data and descriptive statistics. Questions were designed to examine participants' ways of working and income levels before and during the onset of COVID-19. The demographic variables of the waste pickers were largely homogeneous and most shared a common socio-economic background. Most waste pickers presented themselves for interviews individually, but in some cases they worked with a friend, family member or spouse. Only waste pickers driving a saleng were selected to participate in interviews. However, there also were waste pickers that carried small quantities of recyclables, but traveled by motorcycle. Most of the participants lived in the district where the recycling center was located, anywhere from one to 3 kilometers. Based on waste pickers reported gas consumption expenditures, it was surmised that they made their collection rounds within a few kilometers of their homes and their selected recycling centers.

Table 2. Profile of Phuket Waste Pickers

As shown in Table 2, the waste pickers in this study were primarily male. In a few cases women were found working alongside their husbands. Based on observations and interview data, work was clearly differentiated with the men responsible for driving and the women doing most of the collection work. In terms of age, over half of the participants were older than fifty. Most of the older waste pickers had reported that they left jobs in the construction industry as the work became too arduous. In other cases, older workers helped to support their families through waste picking as few other jobs were available to them. In addition, several of the older workers stated that family members had lost their jobs and they were the sole wage earner since the Covid-19 Crisis hit Phuket.

From the start of interviews with waste pickers, Covid-19 was clearly a topic of interest, particularly when asked questions about the availability of different types of trash. Participants were very concerned about the impact of Covid-19 on their income for various reasons. The most prevalent was a loss of income as the number of tourists and the refuse they
produced had dropped to zero after the lockdown of Phuket in April 2020. Moreover, the recycling centers were forced to close for the month of April to prevent the spread of Covid-19. As such, waste pickers were forced to stockpile recyclables at home. When the recycling centers opened again, additional factors brought down the income of some waste pickers. One reason that was mentioned was an increase in unemployed Thai and migrant workers who shifted to collecting recyclables as a means of survival. In addition, the price of some recyclables dropped as manufacturers saw less demand for their products.

Table 3. Comparison of Income Levels Before and During Covid-19

Many waste pickers reported that they engaged in waste picking as it offered freedom of employment and they enjoyed being paid on a daily basis. Several participants reported that they took up waste picking after losing their jobs in the early part of 2020. However, not all of these participants reported working full-time as waste pickers. Some of the elderly waste pickers reported that they were the only wage earners as many of their family members had lost jobs. As nearly all the hotels in Phuket were required to shut down due to the government lockdown. At the time this research was conducted (May 2020), data was not yet available on the number of unemployed workers on Phuket. However, based on anecdotal evidence only hotel workers employed by the bigger chains continued to receive compensation and tour operators and staff were left with no source of income.

In terms of employment status, most of the participants reported that they worked exclusively as waste pickers. However, a few stated that as they had lost their jobs due to Covid-19, waste picking was a means of earning a living in the interim. Some waste pickers said they took the job to earn a decent wage and it allowed them the ‘freedom of not working for an employer’. Moreover, most of the participants stated they were employed for more than 10 years in this profession.

Table 4. Years Employed as a Waste Picker

Based on the long-length of employment, participants were either satisfied with this type of work or had few other options. It should be noted that two of the participants, an elderly disabled couple, had been engaged in this work for over 30 years.

Health and Social Protection

In open-ended queries, participants were asked to explain the ways they accessed healthcare or any other government social support systems. While all participants had access to healthcare (in Thailand treatment is virtually free provided a co-payment of 30 Baht is paid), many stated that they could only be treated in their home provinces. That is to say, they had yet to register themselves in Phuket (a process referred to as ‘house registration’ in Thailand). While they could still use these services in the towns where they were registered, a few participants reported that transportation home was too expensive. One waste picker explained that his finger became infected after being pierced with scrap metal (it was visibly swollen). But, as he had yet to renew his identification card, he could not visit the hospital. Notwithstanding, many waste pickers reported that they were fearful of visiting the hospital, due to the ‘current’ Covid-19 pandemic.

Although the recycling centers had closed because of the spike in Covid-19
cases on Phuket, one of the recycling center owners stated that he was not aware of any waste pickers having contracted Covid-19. Nonetheless, it was observed that all waste pickers wore a cloth mask to protect themselves at the recycling centers. Responses show that they were concerned about contracting Covid-19. However, it also should be noted that failure to wear a mask entailed a heavy fine (of up to 20,000 Baht). Based on observations, no one wore gloves or any other type of protective gear other than cloth masks at the drop-off points (in front of the recycling centers). As this study was conducted during the peak of Covid-19, it is not clear whether masks are worn as a regular precaution during work.

Additional queries aimed to show the ways participants accessed social services. The first query was related to the government stimulus of 5000 Baht per month for all Thai citizens during the Covid-19 crisis. While most had heard about the availability of this fund, only a few waste pickers had received this money. Many stated that they had not even applied, as they were unaware of how to do so.

In the case of the disabled participants they mentioned receiving a small stipend (300 Baht a month). In addition, few received social security as they were not registered in the formal system. As such, many waste pickers were not formally excluded from the system. However, documentation and a lack of information appeared to hinder their inclusion in the system.

Tables (for insert):

Table 1. Hierarchy of the Recycling Business

<table>
<thead>
<tr>
<th>Level</th>
<th>Organization</th>
<th>Type</th>
<th>Principal Activities</th>
</tr>
</thead>
</table>
| 1     | Pellet producers/Metal works  | Manufacturer  | □ Produce plastic pellets from used materials  
|       |                               |               | □ Produce ‘new’ metals from used metals                                               |
| 2     | Large recycling centers       | Large trader  | □ Purchases recyclable materials from junk shops and traders  
|       |                               |               | □ Mechanically compacts recyclable materials and sells them to factories (Thai and overseas) and agents |
| 3     | Small recycling center        | Trader        | □ Purchases marketable materials from entrepreneurs  
|       |                               |               | □ Sells recyclable materials to local factories and traders  
| 4     | Entrepreneurs (level 1)       | Middleman (1 to 3 persons) with pick-up truck | □ Purchases marketable materials from trash pickers, consumers, convenience stores and hotels  
|       |                               |               | □ Sells recyclable materials to junk shops  
| 5     | Entrepreneurs (level 2)       | Individuals (1 to 2 persons with saleng) | □ Collects waste from trash cans and other locations  
|       |                               |               | □ Sells recyclables on a daily basis to junk shops for cash  

Table 2. Profile of Phuket Waste Pickers

<table>
<thead>
<tr>
<th>Gender</th>
<th>(n)</th>
<th>%</th>
<th>Ages</th>
<th>(n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>3</td>
<td>15</td>
<td>Under 30</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Male</td>
<td>17</td>
<td>85</td>
<td>31-40</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>41-50</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>51-60</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>61 and up</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3. Comparison of Income Levels Before and During Covid-19

<table>
<thead>
<tr>
<th>Monthly Income(^1) (Baht(^2)) 2020</th>
<th>(n)</th>
<th>%</th>
<th>Monthly Income (Baht) 2019</th>
<th>(n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2999</td>
<td>1</td>
<td>5</td>
<td>Less than 2999</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>3000-3999</td>
<td>5</td>
<td>25</td>
<td>3000-3999</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>4000-4999</td>
<td>3</td>
<td>15</td>
<td>4000-4999</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5000-5999</td>
<td>1</td>
<td>5</td>
<td>5000-5999</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>6000 and up</td>
<td>10</td>
<td>50</td>
<td>6000 and up</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not WP(^3)</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

\(^1\) Based on income reported (March - May 2020)
\(^2\) 30 Baht = 1 USD in May 2020
\(^3\) Not employed as waste pickers before Covid-19

Table 4. Years Employed as a Waste Picker

<table>
<thead>
<tr>
<th>Years Waste Picking</th>
<th>(n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>2 - 5</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>6 - 9</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>10 and up</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Discussion

While the failure of structured municipal waste systems to implement waste segregation programs in Phuket has impeded progress towards SDG 12, this gap in the system provides an important source of income for local residents. Results show the work of waste pickers is critical to sustaining recycling centers, moreover their relationship with each other is mutually beneficial. That is to say, recycling centers were dependent upon
waste pickers to supply them with an adequate quantity of recyclables. While waste pickers appeared to be at the mercy of the recycling centers in terms of setting prices for materials. Findings also show that the price of recyclables was affected by the level of demand from manufacturers. As such, all stakeholders in the system rely on a constant flow of recyclables from the bottom up. Notwithstanding, waste picking is akin to the work in most supply chains in that they are the lowest wage earners.

Although there was a drop in the availability of waste as a result of Covid-19, waste pickers were still able to earn extra some income or support their families. However, many complained that money was short at home as they had additional family members to support whom had lost their jobs. As few understood the processes required to apply for a loan or the way to access special funds offered by the Thai government during Covid-19, recycling was their only option.

Despite the relative freedom of the waste picking profession, the risks are numerous. Similar to previous studies, it was found that waste picking poses numerous health hazards (Wilson et al., 2006). While few participants were found delivering hazardous chemical containers to recycling centers, they operated in neighborhoods where they could have contracted Covid-19.

**Conclusion**

In light of the structure of the recycling ecosystem, it is important that waste management policies in Thailand consider the contribution of waste pickers and the risks of their profession. It is suggested that government agencies examine how to extend benefits similar to those provided in the formal sector. Along these lines, the emergence of Covid-19 shows that the failure of informal workers to access the current health system, could be detrimental to the general public.

It also is imperative that waste pickers stay healthy, as they have no fallback system, if they are physically unable to work. As this study shows, waste pickers are challenged by the bureaucracy of accessing the healthcare system. Based on this notion, it is probable that if they experienced flu-like symptoms, they might decide not to seek formal medical care. As such, it is important to better document this important informal economic activity on Phuket. Future healthcare plans for Covid-19 and other communicable illnesses could benefit from an easy to access and non-threatening system to register waste pickers and ensure their ongoing protection. Furthermore, government agencies should provide training to waste pickers in occupational health and safety; and provide appropriate personal protective equipment.

In addition to health concerns, waste pickers require access to capital. Their sole asset being their saleng; and their primary expenditure being fuel. As such, the ways waste pickers operate and earn a living expenditure being fuel. As such, the ways waste pickers operate and earn a living expenditure being fuel. As such, the ways waste pickers operate and earn a living expenditure. As this study shows, waste pickers not only help to keep Phuket clean their efforts also contribute to SDG 12. As such, waste pickers require access to financial resources (e.g. loans) and social services, which will indirectly improve sanitation and stimulate the local economy from the bottom up. Despite the apparent ‘invisibility’ of waste pickers in the system, results show their work is the cornerstone of the recycling ecosystem on Phuket Island.
Limitations and Recommendations for Further Study
While this study was based on a small sample, time and funding for this research was in short supply. Nevertheless, the participants in this study offered valuable insight into the condition during the peak of the Covid-19 crisis in 2020. As there are no official registries or records of waste pickers in Phuket, it would be challenging to determine an adequate sample of the population. In place of a registry, it would be useful to run a comparative study throughout Thailand using a modified questionnaire. This study also revealed that a number of waste pickers were migrant workers from Myanmar. Along these lines, it would be useful to interview a representative sample of waste pickers (in the Burmese language) as they are the largest migrant population in Thailand.

Acknowledgements
I would like to express my sincere appreciation to the waste pickers on Phuket Island. Without their perspectives on recycling and their way of life this research would not have been possible. Furthermore, I want to thank the recycling business operators who tolerated my presence at their facilities and for their insight into the ways they operated during the Covid-19 crisis. I also am grateful to the ongoing support from the faculty and administrative staff at the College of Management, Mahidol University in Thailand.

References

waste-nnpickers-and-carbon-finance-issues-consider


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BHUTANESE TOURISTS’ MOTIVATION AND SATISFACTION IN THAILAND AS A TOURIST DESTINATION

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ABSTRACT

This research was aimed to examine motivation factors among Bhutanese tourists in visiting Thailand and to investigate their satisfaction in destination attributes. The instrument used in this survey research was the questionnaire. The two significant have been underlined: motivation (push and pull) and satisfaction based on destination and its attractions, local products as well as infrastructure, which influence on tourists. This research has demonstrated that Bhutanese female tourists mostly like to travel with friends rather than alone for shopping/activity and visited country more than two to three times. The study identified ‘getting new experience’ as the most important motive stimulating them to travel in Thailand. On the other hand, it seems that Bhutanese tourists were more likely to be satisfied with cultural aspects of travelling. The findings revealed that travelers were satisfied on 5 sides: attraction, local products, hospitality of local people, and infrastructure.

Keywords: Travel motivation, Push-pull factor, Tourist satisfaction, Bhutanese tourist, destination

*corresponding author
Introduction

Tourism has turned into a significant factor that influence on the growth of Thailand economy. It has been promoted in the country as a major generator of national income (Rattanasuwongchai, 1998). According to Bangkok Post (2020), international number of tourists has experienced a considerable 7% growth in one year from 38.2 million hitting 39.8 million in 2019 which represents more than 50% of Thai population.

In addition, according to the study of Tourism Council of Bhutan (2017), found that Bhutan is experiencing economic growth as the result of the generating revenue from the tourism sector, as well spreading the country's unique culture and traditions. Therefore, the demand the outbound travel is growing. According to the study of Bhutan Airline (2017), there is a daily flight between Bhutan and Thailand whereby more than 100 of Bhutanese tourists travel to Thailand every day. Based on the Trading Economics (2017), the number of Bhutanese tourists visiting Thailand has been increasing over 20 years, from 4159 in 1997 to 11277 in 2016. This clearly demonstrates that the amount of Bhutanese arrivals are still less compared to China. In other words, Thailand welcomes the Bhutanese tourists as a result of constant growing relationships among these two countries. Thailand and Bhutan's diplomatic relations have been continuing for 30 years, since November 14, 1989. According to official announcement of Ministry of Foreign Affairs, Minister for Foreign Affairs of Bhutan had a meeting with the Minister of Foreign Affairs Thailand in May 2019. H.E. Mr. Don Pramudwinai urged his counterpart to share information on investment to Thai companies, particularly those involved in infrastructure and tourism. Meanwhile, the Bhutanese prime minister expressed his wish to welcome more Thai tourists to his country, which now welcomes about 3,866 tourists a year against 22,000 Bhutanese visitors to Thailand according to Bhutan Tourism Monitor (2018).

Many researchers have examined travel motivation. According to Augustyn and Ho (1998), a better understanding of the needs and motives of tourists and service providers therefore destination marketing can be facilitated well. Maslow's theory is one of the most frequent used to explain the premise of motivation. Tourists may need to escape, relax, to gain relief of physical- and mental tension and for typical sun lust reasons Crompton (as cited by Saayman, 2006) identified seven socio-psychological factors which motivate a tourist to travel: escape from an everyday environment, discovery and evaluation of oneself, relaxing or participation in recreational activities, gaining a certain level of prestige, for the purpose of regression, strengthening family ties and facilitating their level of social interaction.

A review of the past literature on tourist motivation indicates that the analysis of motivations based on the two dimensions of push and pull factors have been generally accepted (Yuan & McDonald, 1990; Uysal & Hagan, 1993). The concept behind push and pull dimension is that people travel because they are pushed by their own internal forces and pulled by the external forces of destination attributes. Most of the push factors which are origin-related are intangible or intrinsic desires of the individual tourists. Pull factors, on the contrary, are those that emerge as a result of the attractiveness of a destination as it is perceived by the tourists. They include
tangible resources and tourists' perception and expectation such as novelty, benefit expectation and marketed image of the destination (Baloglu & Uysal, 1996).

Tourist Satisfaction is another important component for the destination growth. According to study of Masarrat (2012), satisfaction has been identified as an important concept in establishing the performance of different destinations. Given the increasing level of competitiveness, it is essential for tourism management authorities to understand the main factors causing satisfaction/dissatisfaction for the tourist. In addition, customer satisfaction is now contemplated as one of the most prominent feedback, taking into account that it provides in an effective, direct, and significant result of the customers' preferences and expectations (Siskos & Grigoroudis, 2010).

**Objectives of the study:**
1. To examine motivation factors among Bhutanese tourists in Thailand as a destination.
2. To investigate satisfaction of Bhutanese tourists on Thailand's destination attributes.
3. To examine Bhutanese tourists' behavior in Thailand.

**Conceptual framework**

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<tr>
<th>PUSH FACTORS</th>
<th>INTERNATIONAL TOURIST MOTIVATIONS TO TRAVEL</th>
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<td>Novelty seeking</td>
<td>Cultural experience</td>
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<td></td>
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<td>Social contract</td>
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<td>Relaxation</td>
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<th>PULL FACTOR</th>
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<td>Attractions</td>
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![Figure 1 Conceptual framework on tourists' motivations](source: Yoon and Uysal (2005))

**Hypotheses**
1. Tourists with different gender will have different push motivation.
2. Tourists with different age will have different push motivation.
3. Tourists with different education will have different push motivation.
4. Tourists with different career will have different push motivation.
5. Tourists with different income will have different push motivation.
6. Tourists with different gender will have different pull motivation.
7. Tourists with different age will have different pull motivation.
8. Tourists with different education will have different pull motivation.
9. Tourists with different career will have different pull motivation.
10. Tourists with different income will have different pull motivation.
11. Tourists with different gender will have different satisfaction on attraction.
12. Tourists with different age will have different satisfaction on attraction.
13. Tourists with different education will have different satisfaction on attraction.
14. Tourists with different career will have different satisfaction on attraction.
15. Tourists with different income will have different satisfaction on attraction.
16. Tourists with different gender will have different satisfaction on local products.
17. Tourists with different age will have different satisfaction on local products.
18. Tourists with different education will have different satisfaction on local products.
19. Tourists with different career will have different satisfaction on local products.
20. Tourists with different income will have different satisfaction on local products.
21. Tourists with different gender will have different satisfaction on hospitality of local people.
22. Tourists with different age will have different satisfaction on hospitality of local people.
23. Tourists with different education will have different satisfaction on hospitality of local people.
24. Tourists with different career will have different satisfaction on hospitality of local people.
25. Tourists with different income will have different satisfaction on hospitality of local people.
26. Tourists with different gender will have different satisfaction on infrastructure.
27. Tourists with different age will have different satisfaction on infrastructure.
28. Tourists with different education will have different satisfaction on infrastructure.
29. Tourists with different career will have different satisfaction on infrastructure.
30. Tourists with different income will have different satisfaction on infrastructure.

**Literature review Tourist Motivation**

Important aspect of tourists’ satisfaction is their motivation. Although, it is widely examined. Tourist motivation is the combination of needs and desires that affect the tendency to travel in a general sense (O’Leary & Deegan, 2005). Although, other factors obviously influence on tourist’s behavior, motivation is still considered to be an indicator to explain why tourists behave in a certain way.

According to Lee (2009), tourist motivation can be considered the primary driver while interpreting tourist’s behavior (Eagles, 1992; Fodness, 1994). The study recommends that visitor needs and inspirations are interrelated (Charters & Ali-Knight, 2002). Progression of necessities, a vacationer needs are regularly identified with a higher requirement for self-regard, self-actualization and social needs.

On the other hand, understanding tourist motivation is complex and multifaceted (Crompton, 1979; Uysal, Gahan, & Martin, 1993). Researchers examining tourist motivation have used various measurements based on some different approaches. Fodness (1994) stated that tourism motivation can be measured by five functional segments: sense of self-improvement, learning, discipline minimization, self-regard and compensate amplification. Moreover, numerous academics have referred to push and pull motivations to assess tourist motivation in a different tourism fields (Correia, Valle, &
Tourist motivation also has been categorized into attraction and social motivators (Eagles, 1992), while Kerstetter et al. (2004) has distinguished enterprise, training and a comprehensive way to deal with three components of eco tourist motivation in study of wetland tourism.

Tourist motivation is the combination of needs and desires that affect the propensity to travel in a general sense (O’Leary & Deegan, 2005). In addition, motivation influences on the effective component of the images, or the feelings aroused by a place or people, who may assess a tourist destination based on varying motives of travel (Baloglu, 1997).

Tourist motivation is a result of internal driving needs to get away from the ordinary environment (Iso-Ahola, 1982). Individuals escape routine environments and seek their choice of recreational opportunities such as meeting new people, visiting new places, and having new experiences (Mannell & Iso-Ahola, 1997). Thus, push-pull travel motivation theory has been developed as an important model for individuals to determine tourists’ motivation and how they influence on the choice of travel destination (Dann, 1997). Push factors are the internal drivers that motivate people to travel, while the pull factor is concerned about the external drives that determine where, when, and how they travel (Jang & Cai, 2002). Crompton and McKay (1997) have used a push and pull model to study travel motivations and developed six push and pull motivation factors: cultural exploration, novelty/regression, recover equilibrium, known group socialization, external socialization and interaction, and family togetherness. Likewise, Pearce, Philip and Lee (2005) have found that escape, relaxation, relation enhancement, and self-development are major push travel motivations. On the other hand, pull factors refer to the attractiveness of destination that attract people to travel. For example, specific attributes of a cultural destination such as a relaxed atmosphere, cultural events, and friendliness of the local people were important pull factors in attracting tourists. Based on the literature of push-pull motivation, the tourists’ motivation items have been created.

importance of tourist motivation

Previous studies have found a relevant relationship between tourists’ motivation and their satisfaction of destination. Ross and Iso-Ahola (1991) has found the correlation between motivation and satisfaction of sightseeing tourists. This correlation has indicated the similarity of motivation and satisfaction dimensions which brings tourist overall satisfaction. Yoon and Uysal (2005) has studied the relationship among the push and pull motivation, satisfaction, and destination. The results showed that tourists are more likely to choose destinations, which are believed to fulfill their internal needs or push factors. The model has also revealed structural relationship between motivation and satisfaction.

The model also demonstrated structural relationship between motivation and satisfaction. Uysal and Williams (2004) have tested a model looking at tourist satisfaction with destination attributes and tourist type based on travel motivation that moderates the relationship between satisfactions and attribute factors. It has been indicated that motivation in the model influences relative importance of the two kinds of attributes to tourist satisfaction. Although a number of studies have examined tourist motivation involved in travel, a limited number of tourism studies have addressed and examined the constructs of motivation and satisfaction in the same
context. Given literature on tourists’ motivation, it is predicted that tourists’ motivation will add significant variance of tourists’ satisfaction on destination.

**Motivation Theory**

Motivation is referred to as psychological/biological needs and wants, including integral forces that arouse, direct, and integrate a person’s behavior and activity (Dann, 1981; Pearce, 1982; Uysal & Hagan, 1993). Likewise, McIntosch and Gupta (1977) proposed four constructs of motivation: physical, cultural, interpersonal status and prestige. In addition, in psychology and sociology, the definition of motivation is directed towards emotional and cognitive motives (Ajzen & Fishbein, 1977) or internal and external motives (Gnoth, 1997). An internal motive is associated with drives, feelings, and instincts. An external motive involves mental representations such as knowledge or beliefs. From socio-psychological points of view, motivation are classified into seeking and avoidance dimensions (Iso-Ahola, 1982).

According to Weiner (1985), a theory of motivation and emotion proposed in which causal ascriptions play a key role. The perceived causes of success and failure share three common properties: locus, stability, and controllability, with intentionality and globalism as other possible causal structures. The perceived stability of causes influences changes in expectancy of success; all three dimensions of causality affect a variety of common emotional experiences, including anger, gratitude, guilt, hopelessness, pity, pride, and shame. Expectancy and affect, in turn, presume to guide motivated behavior. Therefore, the theory is related to the structure of thinking to the dynamics of feeling and action. Analysis of a created motivational episode involving achievement strivings is offered, and numerous empirical observations are examined from this theoretical position. The strength of the empirical evidence, the capability of this theory to address prevalent human emotions, and the potential generality of the conception are stressed. Moreover, tourism motivation is for the most part thought to incorporate development of social investigation, curiosity relapse, harmony recuperation, known gathering socialization, outside connection and gregarious at celebration occasions (Chang, 2006, Crompton & McKay, 1997, Lee, 2000). Furthermore, in researches of Cohen, Prayang and Moital (2014) motivation gets a lot of consideration, given its significance in showing choices, for example, division, item advancement, promoting and situating (Beiger & Laesser, 2002). Motivation might be better depicted as ‘mental /organic needs and needs including essential powers that stimulate, coordinate and incorporate conduct and movement (Yoon& Uysal, 2005).

**Tourist Satisfaction**

Tourist satisfaction is considered as an important element to maintain competitive business in the tourism industry as it affects the choice of destination, and the consumption of products and services (Kozak & Rimmington, 2000). Kozak and Rimmington (2000). Pizam, Neumann, and Reichel (1978) have stated that it is important to measure tourists’ satisfaction with each attribute of the destination because satisfaction or dissatisfaction of each attribute leads to satisfaction or dissatisfaction of the tourists’ travel experience. Since tourists may vary in motivation for visiting a destination and they may have different satisfaction levels, the evaluation of tourist satisfaction needs to be considered in multiple dimensions using
integrated approaches in order to involve the complex nature of satisfaction evaluation and the theories of measuring satisfaction (Yoon & Uysal, 2005).

Chon (1989) has found that tourist satisfaction is based on the goodness of fit between his/her expectation about the destination and the perceived evaluative outcome of the experience at the destination area, which is simply the result of a comparison between his/her previous images of the destination and what he/she actually sees, feels, and achieves at the destination. It is generally argued that different tourist groups based on gender, age, income and career may have different satisfaction levels with destination attributes (Huh & Uysal, 2003; Yoon & Uysal 2005; Hui et al, 2007).

**Satisfaction Theory**

Satisfaction is a general mental state that mirrors the assessment of a relationship between client and an organization. Fulfilment includes one of the accompanying three mental components such as psychological (considering/assessment), full of feeling (passionate/feeling), and behavioral. In addition, Mannell and Iso-Ahola (1987) have utilized the information on satisfaction of recreation encounters.

Given the increasing level of competitiveness, it is essential and beneficial for tourism management authorities to understand the main factors causing satisfaction/dissatisfaction for the tourists. In addition, satisfaction is a result of the evaluation and comparison the perceived performance with expectation of goods/service with expectation (Hill, 1986 cited in Heung & Cheng, 2000).

Regarding the study of Swan & Combs (1976) were among the first to argue that the satisfaction is associated with a performance that fulfills expectation occurs performance falls below expectation. In addition, Westbrook & Reily (1983) have developed in response to the problem that aspects for wish expectation could satisfy consumers never existed. Satisfaction is an experience -based assessment made by the customer of how far expectations about individual characteristics or overall functionality of the service have been met (Parker & Mathews, 2001).

The satisfaction is a function of relative levels of expectation and perceived performance. Expectations are formed by the past experiences with the same or similar situation, the statement made by friends and other colleague, and statements made by the supplying organization client satisfaction have been defined as the state of mind that clients with a company and its products or services when their expectations have been met or expected. If the performance matches the expectation, the customer is satisfied. If perceived exceeds the expectations, the client is highly satisfied or delighted (Patterson, 1993).

**Tourist Behavior in Thailand**

Several studies have been devoted to travel behavior of international tourists in Thailand. The study of Esichaikul (2012) is about the travel motivations and travel behavior of European senior tourists in Thailand and analysis of the importance and satisfaction of their travel requirements regarding accommodation, accessibility, attractions, amenities and public services. Research findings have showed that the principal travel motivations of sampled senior European tourists are rest and relaxation. The majority of respondents have traveled to Thailand for the first time and intended to stay in Thailand for 15 days or more for leisure and sightseeing activities. Three major requirements of European senior tourists are safety of the destination, location of accommodation, and presence of natural attractions. The result of this research suggests potential policies and
measures for public and private sector development. Laksanakan (2003) has investigated travel behaviors and trip characteristics of international visitors to Phuket and found that most respondents have been male tourists aged between 25-34 years old. Many of them are Asian tourists with college degree. Their average annual income is approximately US$ 5,000. Most of them have been first-time tourists and visited Phuket for relaxation. However, European tourists seem to stay longer than other groups. And the researcher has found that most of foreigners receive travel information about Chiang Mai from their friends and relatives. On the other hand, Taworn (2007) has found some differences of travel behaviors between Thai and international tourists when visiting Chiang Mai. The study has showed that most of them visit Chiang Mai because of attractions. Thai tourists have come with their friends and foreign tourist based on the information from the internet. In fact, the study has indicated that both groups have different perceptions in terms of prices, location and services.

Tourist Destination in Thailand

Tourist destination is an important component for knowing the tourists motivation to travel in particular destination. Regarding the study of Tapachai & Waryszak (2000), the use of the so-called beneficial image as a framework for the analysis of destination image for decision to visit a country for a vacation. The beneficial image conceptualized as the image characteristics of a destination that subsequently influence tourists’ decision to visit particular vacation destinations. On the contrary, the study of Lertputtarak (2011) has found that destination image and food image are the essences of tourists’ destination selections. The purposes of this research are to study tourists’ perception toward destination image and Thai food image as well as study the relationship between those two variables and the tourists’ intention to revisit. In addition, the results have indicated that destination image and image of Thai food has a positive relationship with tourists’ intention to revisit.

Regarding the study of Chetanot (2005), most of Chinese tourists have visited Bangkok for the first time with the objective of relaxation and traveling with friends and their travelling were prepared by searching information by themselves. Chinese tourists who traveled frequently between September and November have done shopping and visited popular attractions. On the other hand, Riri (2012) has revealed travel motivation of Indian tourists visiting Bangkok has been seeking of something exciting, having fun, seeing and experiencing new destination, reducing stress by escaping from routine of work as well as to learn new things. Taworn (2007) has found that international tourists visiting Chiang Mai are mostly willing to see local attractions. Mostly these tourists searched the information by surfing the net. In fact, the study indicates that they have different perceptions in terms of prices, location and services.

Push-Pull motivation Theory

The concept of push and pull motivations theory describes that people pushed by internal motives called push factors and are pulled by destination attributes called pull factors when making their travel decisions (Lam & Hsu, 2004). This concept classifies into two factors, which indicate that people travel because they are pushed and pulled to do so by some factors. Push factors are mainly considered as socio-psychological motives that predispose people to travel, while pull factors as destination attributes are those
that attract people to choose a particular destination (Lam & Hsu, 2004). In tourism research, this motivation concept can be classified into two forces, which indicate that people travel because they are pushed and pulled to do so by “some forces” or factors (Dann, 1977, 1981). In addition, Dann (1977) has made a significant contribution in suggesting two factors motivating people to travel and to go to a particular destination. These two factors are called push and pull motivational factors.

The push and pull approach remains the most broadly connected for clarifying motivations, given its straightforwardness and instinctive methodology (Klenosky, 2002). Visitors are pushed by their biogenic and enthusiastic needs to travel and pulled by destination properties (Yoon & Uysal, 2005). This procedure is directed by elements, for example, association, symbolism and feelings (Gossens, 2000; White & Thompson, 2009). The push-pull approach is frequently used for business sector to profile guests. Additionally, the impact of demographic and voyaging attributes on motivations is thoroughly investigated (Kim & Prideaux, 2005; Kozak, 2002; Lau & McKercher, 2004). Furthermore, Baloglu and Uysal (1996) contend that idea of item packages is utilized to allude to the apparent significance of collaboration amongst push and pull items of motivations. This infers certain explanations behind travel may relate to certain advantages that are esteemed and acquired at the destination site. Along these lines, advertisers and destination promoters in tourism ought remember that best items are those which react best to a heap of requirements inside a given business sector portion, and ought to give additionally showcasing endeavors to coordinating a destinations significant ascribes to the visitors assorted mental needs.

Based on the intrinsic and extrinsic motivations, as examined over, the individual tourist builds his or her perceptions, and the perceptions can be different from the attributes of the product depending on how the individual receives and processes information (Baloglu and Brinberg, 1997). A general conclusion can be drawn that individual thought processes (push intentions) decide discernments. These thought processes communicates in an element and developing connection (Correia, 2000), and the tourist inspiration is seen as multidimensional idea that clarifies visitor choice (McCabe, 2000).

As tourism worldwide is identified with individuals and human instinct, it is dependently an intricate recommendation to examine why individuals travel and what they need to appreciate (Yoon and Uysal, 2005). In real studies, it is acknowledged that push and pull motivations have been principally used in investigation of tourist behavior. The revelations and issues without a doubt assume a valuable part in endeavoring to comprehend a wide assortment of requirements and needs that can rouse and impact visitor conduct. Nevertheless, Yoon and Uysal (2005) contend that the outcomes and impacts of the motivation studies of tourist behavior conduct require more than a comprehension needs and wants.

In tourism destination administration, it is ordinarily concurred that expanding travel fulfillment is essential for a fruitful business. The assessment of the physical results of destination (instrument performance), and the mental understanding of a destination item (expressive attributes) are important for human activities (Swan and Combs, 1976; Uysal and Noe, 2003), which could be further spoken to as travel fulfillment and destination dependability. Both ideas can be analyzed inside the setting of tourism framework speaking to
two noteworthy parts of the commercial center, to be specific, demand (tourist) and supply (tourism attractions) (Jurowski et al., 1996). In travel motivation study, demand refers to push motive (push factors that sustain tourist desires while supply relates to destinations characteristics. In fact, most of the push factors are the internal forces that is related to the needs and wants of the tourists, for example; the desire for escape, rest and relaxation, adventure, excitement, health and fitness (Uysal & Jurowski, 1994; Klenosky, 2002). On the other hand, pull factors are related to external factors where a person travels to meet his or her needs or desires (You et al., 2000).

Cha, McCleary and Uysal (1995) have explored the travel motivation of Japanese overseas tourists by focusing on the push factor approach and segmented them into three distinct groups: sport seekers, novelty seekers, and family-relaxation seekers. The result of the study has disclosed that there are different motivation factors among Japanese overseas tourists, and it has been possible to cluster or segment Japanese overseas tourists based on their motivation. The author has suggested that, when marketing to Japanese overseas tourists, these three groups should be recognized, and different types of advertisement should be considered.

Finally, the push and pull motivations are mostly discussed by the researchers and also recognized by tourism researchers as helpful and appropriated to investigate tourist motivations (Klenosky, 2002; Lam & Hsu, 2004; Yoon & Uysal, 2005). Significantly, the push and pull factors are considered as a convenient framework for investigating the different forces that influence a person to consider taking a vacation and forces that attract person to choose a specific vacation destination (Klenosky, 2002). Therefore, by using the push and pull motivations theory to investigate travel motivation of Bhutanese tourists will be appropriate to use in this research.

Research methodology
Method of Research Used
The target subjects studied in this research are Bhutanese tourists’ motivation and their satisfaction in Thailand.

Respondent and Sampling Procedure
According to the record of trading economies, the number of Bhutanese tourists in each year is average 11,277.

Sampling Size Procedure
The sample is drawn from the Bhutanese tourists traveling in Thailand from January to December 2017. There are 400 respondents for this survey and random sampling was used for this survey. The criteria include Bhutanese tourists’ arrival in Paro (Bhutan) airport from Thailand. Those who did not possess the characteristics mentioned above were not considered.

The sample of this research is calculated by using Taro Yamane (Yamane, 1993) formula with 95% confidence level.

After calculated the sample size by substituting the numbers into the Yamane formula, the numbers of sample is 386.29 persons. In order to obtain reliable of data, researcher has increased sample size to 400 subjects.
Research Instruments - Questionnaire
The instrument used in this survey research was the questionnaire. The questionnaire developed on the major of the conceptual framework of this study. The questionnaire is based on motivation, satisfaction, and behavior of Bhutanese tourists in Thailand. Therefore, the questionnaires are distributed for 400 copies within 5% of merging error.
the respondents Satisfaction and Motivations of Bhutanese tourists in Thailand. All of the statement of five-point scale ranging from 5=strongly agree, 4=agree, 3=neutral, 2=disagree and 1=strongly disagree. The third part of the questionnaire is focused on Bhutanese tourists’ behaviors. The last part is devoted to suggestions how to motivate Bhutanese tourists to come to Thailand.

Component of Questionnaire
The questionnaire has four parts: 1) Demographics 2) Satisfaction and Motivation of Bhutanese tourists in Thailand 3) Tourist behavior 4) Suggestion about how to motivate Bhutanese tourists to come to Thailand.
The first part of the questionnaire is about Bhutanese tourists’ demographics. The second part of questionnaire is to evaluate

Secondary Data Collection
The secondary data refers to analysis of the information collected according to the purpose of the researcher. The collection has been made from various sources such as academic textbooks, journals, website, previous studies, and statistics from Trading economies. The collection of secondary data vital to this research effort, facilitated the research design, and helped to give the research a design as well as give a useful research direction.

Data Analysis Descriptive Statistics
The most basic analysis in quantitative research involves the recording of sample descriptive statistics. Descriptive statistics are useful to describe the population or sample as it provides summarized basic information. The calculation of averages, frequency distribution are the most common forms to summarize data. Consequently, by the calculation the respondents’ profile is summarized.

Independent -Sample T-test
An Independent -Sample T-Test is appropriate when different participants have performed in each of the different conditions. This tool is used to determine if there are any significant differences between the means of the two sets of scores. Therefore, the Independent -Sample T-Test will be applied to observe whether the difference between the means for the
two genders group of Bhutanese tourists is significant using their motivation or satisfaction on behavior.

Results

The satisfaction and motivation on push factor, overall at agree level with an average 3.47, when classified each item was found for getting new experience on agree level with an average of 4.12. Followed by relaxing on the agree level with an average of 3.76 and having enough money and time on neutral level with an average of 2.53. This paper examined travel motivation of Bhutanese tourists. The study identified ‘getting new experience’ as the most important motive stimulating them to travel in Thailand. Hanqin and Lam (1999) argued that knowing the importance of push and pull factors perceived by the travelers can help destination marketers develop the marketing programs to meet the desired needs of target market. Based on the results, tourism marketers should realize the importance of push factor ‘getting new experience’ with the motives incorporated in the factor (e.g. the need to see something new, exciting as well as chance to relax from stressful environment), which are perceived as driving forces for Bhutanese tourists to visit Thailand.

The satisfaction and motivation on pull factor, overall levels at agree when classified as each item was found for beautiful attraction in Thailand on agree level with an average of 3.69. Followed by trying different food on the agree level with an average of 3.64 and promotion of traveling on agree level with an average of 3.59. At the same time, ‘beautiful attraction’ was viewed as the major destination attributes drawing them to Thailand. Pull factors are those that emerge as a result of the ‘attractiveness’ of a destination and are thought to help identify actual destination choice (Bello & Etzel, 1985 cited in Hanqin & Lam, 1999).

The satisfaction and motivation on destination attraction overall at agree level with an average of 3.84, when classified as each item was found for the attractiveness of Thai culture on agree level with an average of 3.90. Followed by variety of tourist attractions and activities on agree level with an average of 3.87 and tourist safety and security on agree level with an average of 3.76. According to the results, it seems that Bhutanese tourists were more likely to be satisfied with Thai culture. In the formation of motivations, an individual’s values, which are defined as the strategies used to adapt a situation to one’s needs or oneself to a situation (Kahle, 1983 as cited in Li & Cai, 2012), assist in evaluating the potential for objects, situations, or events in the tourism context, destinations and/or other tourism facilities to satisfy these values. As the operationalization of social and cultural factors, values can be regarded as indicators of the external environment that influence the individual’s motivation from a sociological perspective.

The satisfaction and motivation on local products, overall, at agree level with an average of 3.81, when classified as each item was found for the quality and value of local products on agree level with an average of 3.86. Followed by variety shop of local products on agree level with an average of 3.79 and quality of packaging of local products on agree level with an average of 3.78. According to study of Yi-Hsin Lin (2011) found that satisfaction can be regarded as a personal assessment of overall experience in a place of emotional response and as a state of mind. It is a complex human process and involves cognitive and affective processes, as well
as other psychological and physiological factors.

The satisfaction and motivation on hospitality of local people, overall at agree level with an average of 3.73, when classified as each item was found for the behavior, manner and friendliness of local people on agree level with an average of 3.80. Followed by guidance and assistance given by local people on agree level with an average of 3.76 and services of local people on agree level with an average of 3.64. In addition to this, satisfaction is a general mental state that mirrors the assessment of a relationship between client and an organization domain item benefit. Fulfillment includes one of the accompanying three mental components: psychological (considering/assessment), full of feeling (passionate-feeling), and behavioral. In addition, Mannell and Iso-Ahola (1987) utilized the information on satisfaction of recreation encounters.

The satisfaction and motivation on infrastructure, overall at neutral level with an average of 3.46, when classified as each item was found for transportation and communication on agree level with an average of 3.55. Followed by safety of transport on neutral level with an average of 3.47 and cost of transport in Thailand on neutral level with an average of 3.38. Regarding the study of Swan & Combs (1976) were among the first to argue that the satisfaction is associated with a performance that fulfills expectation occurs performance falls below expectation. Also, Westbrook & Reily (1983) which was developed in response to the problem that consumers could be satisfied by aspects for wish expectation never existed. Satisfaction is an experience-based assessment made by the customer of how far his expectations about individual characteristics or overall functionality of the service obtained provider have been met (Parker & Mathews, 2001).

**Results of Hypothesis testing.**

H1. Tourists with different gender will not have different push motivation.
H 2. Tourists with different ages will not have different push motivation.
H 3. Tourists with different education will not have different push motivation.
H 4. Tourists with different career orientation will not have different push motivation.
H 5. Tourists with different income will not have different push motivation.
H 6. Tourists with different gender will not have different pull motivation.
H 7. Tourists with different ages will not have different pull motivation.
H 8. Tourists with different education will not have different pull motivation.
H 9. Tourists with different career orientation will not have different pull motivation.
H 10. Tourists with different income will not have different pull motivation.
H 11. Tourists with different gender will not have different satisfaction on attraction.
H 12. Tourists with different age will not have different satisfaction on attraction.
H 13. Tourists with different education will not have different satisfaction on attraction.
H 14. Tourists with different career orientation will not have different satisfaction on attraction.
H 15. Tourists with different income will not have different satisfaction on attraction.

H 16. Tourists with different gender will not have different satisfaction on local products.

H 17. Tourists with different age will not have different satisfaction on local products.

H 18. Tourists with different education will not have different satisfaction on local products.

H 19. Tourists with different education will not have different satisfaction on local products.

H 20. Tourists with different income will not have different satisfaction.

H 21. Tourists with different gender will not have different satisfaction on hospitality of local people.

H 22. Tourists with different ages will not have different satisfaction on hospitality of local people.

H 23. Tourists with different education will not have different satisfaction on hospitality of local people.

H 24. Tourists with different career will not have different satisfaction on hospitality of local people.

H 25. Tourists with different income will have different satisfaction on hospitality of local people.

H 26. Tourists with different gender will not have different satisfaction on infrastructure.

H 27. Tourists with different age will not have different satisfaction on infrastructure.

H 28. Tourists with different education will not have different satisfaction on infrastructure.

H 29. Tourists with different career orientation will not have different satisfaction on infrastructure.

H 30. Tourists with different income will not have different satisfaction on infrastructure.

Discussion and Conclusion

In this research, Thailand tourist attraction are natural attraction, historical attraction, cultural attraction/festival and shopping/activity.

This study found that the general information of respondents, most of Bhutanese tourists were female 223 subjects 55.8% and male 177 subjects 44.3%. Mostly Bhutanese tourists were in age 31 to 50 years old with 160 subjects at 40% and minority of respondents were in 18 to 20 years old with 41 subjects at 10.3%, following by between 21 to 30 years old with 157 subjects at 39.3% and over 51 years old with 42 subjects at 10.5%.

And Bhutanese tourists have education level in bachelor degree with 180 subjects at 45% and minority of respondents have master degree or higher with 44 subjects at 11%, following by high school with 91 subjects at 22.8% and diploma or college with 85 subjects at 21.3%. The career of Bhutanese tourists are unemployed with 134 subjects at 33.5% and minority of respondents were others with 10 subjects at 2.5%, following by business owner with 105 subjects at 26.3%, company employee with 89 subjects at 22.3% and government employee with 62 subjects at 15.5%. The majority of Bhutanese tourists have an income 10,000 to 20,000 baht with 147 subjects and minority of respondents have more than 30,000 baht with 51 subjects at 12.85%, following by less than 10,000 baht with 132 subjects at 33.5% and 20,001 to 30,000 baht with 70 subjects at 17.55%.
For behavioral information of respondents most of Bhutanese tourists like to go is shopping or activity 322 subjects 80.5%, the least are historical attraction 20 subjects 5.0% following by natural attraction 31 subjects 7.8%, cultural attraction/festival 27 subjects 6.8%, and historical attraction 46 subjects 11.5%. About the reason that Bhutanese tourists come to Thailand mostly is business or personal with 164 subjects at 41% and minority reason of respondents is for leisure with 62 subjects at 15.5%. Following by others (specific) with 110 subjects at 27.5% and visit friends or relative with 64 subjects at 16%.

The transportation that Bhutanese tourists mostly use is public transport with 304 subjects at 76% and minority group have respondents for others with 17 subjects at 4.3%. Following by rental transport with 49 subjects at 12.3% and private transport with 30 subjects at 7.5%. In addition to this, mostly Bhutanese travelers came to Thailand with friends for 183 subjects at 45.8% and minority with others for 59 subjects at 14.8%. Following by family or relative with 95 subjects at 23.8% and couple with 63 subjects at 15.8%. Next is the budget for traveling each time of the Bhutanese tourists is mostly more than 5,000 bath with 264 subjects at 66% and minority of respondents have less than 1,000 bath with 10 subjects at 2.5%. Following by 3,001 to 5,000 bath with 101 subjects at 25.3% and 1,000 to 3,000 bath with 25 subjects at 6.3%.

And the cash that Bhutanese tourists prepare mostly between 1,000-3,000 bath 160 subjects 40.0% and the least is others 4 subjects 1.0%. Following by 3,001-5,000 bath 93 subjects 23.3%, more than 5,000 bath 74 subjects 18.5%, and less than 1,000 bath 69 subjects 17.3%. And Bhutanese tourists mostly come to Thailand for more than 3 times with 132 subjects at 33% of majority whereas, the minority is 1 time with 82 subjects at 20.5%. Following by 2 to 3 times with 186 subjects at 46.5%.

The level of agreement on Thailand tourism attraction with six (6) sides were found.

Bhutanese tourists have satisfaction and motivation on push factor, overall at agree level with an average 3.47, when classified each item was found for getting new experience on agree level with an average of 4.12. Followed by relaxing on the agree level with an average of 3.76 and having enough money and time on neutral level with an average of 2.53.

The satisfaction and motivation on pull factor, over all at agree level with an average 3.64, when classified each item was found for beautiful attraction in Thailand on agree level with an average of 3.69. Followed by tasting different food on the agree level with an average of 3.64 and promotion of traveling on agree level with an average of 3.59.

The satisfaction and motivation on destination attraction, overall at agree level with an average of 3.84, when classified as each item was found for the attractiveness of Thai culture on agree level with an average of 3.90. Followed by variety of tourist attractions and activities on agree level with an average of 3.87 and tourist safety and security on agree level with an average of 3.76.

The satisfaction and motivation on local products, overall at agree level with an average of 3.81, when classified each item was found for the quality and value of local products on agree level with an average of 3.86. Followed by variety shop
of local products on agree level with an average of 3.79 and quality of packaging of local products on agree level with an average of 3.78.

The satisfaction and motivation on hospitality of local people, overall at agree level with an average of 3.73, when classified as each item was found for the behavior, manner and friendliness of local people on agree level with an average of 3.80. Followed by guidance and assistance given by local people on agree level with an average of 3.76 and services of local people on agree level with an average of 3.64.

The satisfaction and motivation on infrastructure, overall at neutral level with an average of 3.46, when classified as each item was found for transportation and communication on agree level with an average of 3.55. Followed by safety of transport on neutral level with an average of 3.47 and cost of transport in Thailand on neutral level with an average of 3.38.

**Recommendations**

This study collected data on site where the respondents have already been in Thailand. The results may not truly reflect their actual motivations to visit Thailand because some factors such as trip experience, perceptions, and attitudes may influence the assessments while they were on site locations. It would be more interesting for future research to assess tourist motivations prior to their actual journey.

Finally, since this research is quantitative study, the research that is based on qualitative methods examining international visitors in Thailand is still limited. Thus, qualitative research methods such as interviews, observations or focus group should be accompanied to get more refined and a better understanding of financial tourists' travel motivations and their travel-related behaviors.

**Acknowledgment**

We thank the anonymous respondents for their time and contribution to this research as well the colleagues for their advices and support.

We have tried our best to present this information, as clearly as possible using basic terms that we hope will be useful by the widest spectrum for further studies.

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AN INTERUNIVERSITY STUDY ON AWARENESS OF CHALLENGES TO LABOR MARKET

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ABSTRACT

For several years now, Thailand has been working towards a new economic model, Thailand 4.0, which implies the massive reformatting and disruptions to the workforce, threatening unskilled labor and new graduates to be left unemployed with unclaimed skills in the labor market of the future. Thus, the question of readiness of the labor market and educational institutions to those challenges is especially relevant. To find out how much students and educators know about the issue, quantitative exploratory research employs a survey questionnaire to collect data from 651 individuals representing 57 educational institutions in Thailand. It was found that the origins of knowledge on this topic do not come from education institutions; there are also questions to the quality of this knowledge and how it was acquired. All this allows the researcher to ascertain that universities are not working enough in this direction and, most likely, do not even set themselves such a task. In favor of this thought speaks at least the fact, that 226 (40.6%) students confident that they will not work in their specialty after graduation, whereas 403 (72.4%) believe, that the profession which they are studying today, will not meet the needs of the future either immediately or shortly after the graduation. The findings of study suggest, that, while many respondents know about the issue, not many aware of how to use this knowledge.

Keywords: Automation, Future of work, Labor market, Robotization, Thai universities, Unemployment

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Introduction
Since 2016 the country has started implementing the Thailand 4.0 policy to move towards digitization (Reporters, 2017). According to Frost and Sullivan (2018), this policy aims to turn Thailand from an adopter of AI at present to one of the largest manufacturers and exporter of robotics products soon. At the same time, the policy foresees increased use of automation and robotization in the country itself, which undoubtedly, will affect not only different aspects of life but also will bring massive disruption into the Thai labor market. In this regard, especially crucial would be a question of readiness of the community to the challenges mandated by approaching automation and robotization. Attention should be paid to the management of the labor force, an integral part of which is also an educational system. This is precisely what is trying to establish the current research – the level of awareness of students about the potential danger of losing jobs to automation and robotization soon. Since the level of awareness of students, a lot of what depends on the position of universities and teachers, the knowledge of teachers and relevance of university programs to the future challenges is also under the investigation. Thus, the research is guided by the following research questions.

Research questions
Current exploratory research conducted to have a better understanding of not a well-known phenomenon employs a grounded theory approach and is guided by the following research questions.

1. Do students and educators aware of the dangers of losing jobs to automation and robotization?
2. Do university programs address the needs of tomorrow's labor market?
3. Do authorities provide enough of educational support for the Thailand 4.0 policy?
4. What jobs are perceived by students and educators as being in danger of disappearance because of automation and robotization?

Conceptual framework
The Cambridge dictionary defines awareness as understanding of a situation, which results in a wide range of behavioral actions. One of such action according to Zolait et at. (2104) would be addressing the problem in order to reduce its consequences, means to use the knowledge. A similar idea is seen in the research by Jalil and Sharif (2018), who considered awareness as a function of few independent variables, one of which is a knowledge.

Building on it, the researcher assumes, that students and educators' awareness of the challenges of AI will be the function of an individual's knowledge about the problem as well as how this knowledge was acquired and used; as it shown in the Figure 1.

![Figure 1 Conceptual framework](image-url)
Literature review

While all previous, so-called industrial revolutions, undoubtedly led to the explosive growth of well-being and living conditions of people (Kagermann et al., 2013), there is a grounded idea that outcomes of the fourth, artificial revolution, what we are observing today, will be “really different” (Virgillito, 2017). The increased role of automation and machines on all aspects of human activities, will result in a situation when machines endowed with specific cognitive skills would fully “replace humans in jobs we thought could only be performed by humans” (Fuldauer, 2019). The lack of knowledge and inability to predict the self-learning potentials of artificial intelligence and how far it could go in its self-development leads to the emergence of different, often conflicting forecasts and theories on negative and positive developments as well as threats and opportunities for the humankind caused by further robotization of workplaces (Danaher, 2017; Sachs et al., 2015; Smids et al., 2019). The techno-pessimistic scenario suggests that further improvements and rise of AI and robotization will result in higher income inequality, unemployment, breakdowns in the social order, and even in getting it out of human control. And, to cope with these challenges, society needs to be prepared. There is a growing concern all around the world about the readiness of the labor markets and educational systems to meet the challenges of tomorrow. With regards to the latter, relevant is the question of whether they are delivering “skills that will be needed in the job market of the future” (Smith and Anderson, 2014). This question is grounded in the “widespread fear that robots and AI will take jobs and throw millions of people into poverty” (Darell, 2018). For example, based on a two-year study, McKinsey Global Institute report predicts that by 2030, as many as 800 million jobs could be lost worldwide to automation, whereas, intelligent agents and robots could replace as much as 30 percent of the world’s current human labor (Manyika et al., 2017). The study says that advances in automation and robotics will have a drastic effect on everyday working lives, whereas, up to 375 million workers may need to switch occupational categories and learn new skills. Similar estimates of 25 percent, this time for the U.S. job market, is given by Muro et al. (2019). The authors suggest that 70 plus percent of current job task content is at risk of substitution, and further automation and AI will affect virtually all occupational groups in the future. According to another estimate by Frey and Osborne (2017), about 47 percent of total US employment is at risk. Similar counts for Thailand were given by Pricewater House Coopers Consulting, who suggests that 45% of work activities will be automated soon (Reporters, 2017). All this indicates the need for urgent responses on the different levels, one of which would be restructuration of educational programs and curriculums to the desired level, and current data suggests precisely the opposite. For example, in 2018, a collaborative network of Thai universities established by the Center of Robotic Excellence (CoRE) and Thai Ministry of Industry, retrained only 500, instead of 5,000 planned, educators and professionals. To compare, under a similar roadmap of Japan, there were prepared 80 times more specialists in the same year. At the same time, CoRE works only with some 20+ out of 228 universities and 416 vocational institutions of higher learning in Thailand, which, even the organization itself deemed to be insufficient.

Definitions

The word an educator uses to identify the lecturers and teachers and the administrative staff of universities as well as
those whose job is directly related to the field of literacy, including the employees of numerous government organizations.

Words automation and robotization used interchangeably to indicate the process of replacing jobs previously done by people with machines.

**Method**

This is a quantitative exploratory research that employs inductive logic of reasoning grounded in the quantitative survey data that being statistically analyzed using descriptive and inferential techniques to generate information about unknown aspects of a phenomenon. An exploratory nature of the research aims to discover the real state of awareness of the issue amongst the academic community in a quick and relatively inexpensive way. The researcher uses a non-probability sampling technique, which, according to Baker et al. (2013) particularly useful for this type of research.

The survey questionnaire, as a form of data collection, was chosen because it is a “prevalent form of data collection, especially for gathering information from large groups, where standardization is important” (Westat, 2002).

**Respondents**

The respondents were the students, teachers, and administrative staff of Thai universities as well as employees of government bodies whose job is directly related to the field of education. Considering statistical data on students and educator by the National Statistical Office (2018) of Thailand, and applying Taro Yamane estimation method, was decided to collect data from the sample of 400 students and 100 educators. Wherein, the size of the first segment would provide the research with 95% of confidence level at 5% of margin error, and later will correspond with 90% of confidence. It was decided that neither gender nor age (except those below 20-year-old) should not impose any restrictions on participation in the study. The principle of non-representativeness was also applied to the distribution of jobs (for educators) and belongings to a university, faculty, or the major of study in the case of the students.

**Instruments and procedures**

The researcher used two different, although interwoven in their main parts questionnaires, aimed at different population segments of students and educators. Both surveys were built around the research questions and objectives and were written in the Thai language. Prior distribution, the questionnaires were validated for clarity and comprehensiveness (face and content validity) with the help of students and faculty members of the Naresuan University International College. Both questionnaires, made of 11 and 10 questions respectively, were distributed in offline (at a few physical locations) and online modes with the application of non-probability sampling techniques such as convenience, snowball, and self-selecting sampling. At the same time, the researcher used the paid advertising on social media to deliver surveys to the targeted population throughout Thailand.

To stimulate participation, the questionnaire did not ask for any personal or private data of participants except for the fields of study in case of students and places of work in case of educators whereas, the answer to last was not compulsory.

The entire process of collecting responses took approximately three months, starting from December 2019 until March 2020. Due to the significantly higher online activity of students, in comparison to educators, there were more than intended responses from this segment of the population sample. The further screening of the questionnaires for completeness,
accuracy, and meaningfulness left the researcher with 556 and 95 valid copies returned by students and educators, respectively.

Data analysis
Before reporting findings, it is necessary to recall an evident desire on the side of educators to reflect on the reality with exaggerated evaluation scores as well as students’ aspiration to answer positively to yes-no questions, especially to offline questionnaires. Such deviation is well aligned with the key face-saving and criticism-avoidance values of Thais who, as it was describes by Komin (1990), to maintain these values, try to avoid any form of direct criticism or negativity. Considering a small number of paper questionnaires (N = 50), there is every reason to believe that they did not affect the general pattern and tone of all answers.

Demographic of the respondent
Out of 651 respondents to the questionnaire, 556 (85.4%) were students of different years of study, 55 (8.4%) were teachers, 28 (4.3%) were administrative staff of the universities, and 12 (1.8%) were those, whose jobs directly related to the field of education. All respondents represent 57 educational institutions in Thailand, whereas the educators alone belong to 38; it makes this research an indeed an inter-university study. Since it was not arbitrary to disclose belongings to an educational institution, the total number of participated universities could be even higher. The top ten universities (ranked by the number of participants) were: KMITL, Kasetsart, Thammasat, Naresuan, Burapha, Bangkok, Mahidol, Thai Chamber of Commerce, Chulalongkorn, and National Institute of Development Administration. The answers suggest the association of respondents with 152 fields of study or faculties, with the top ten ranked by the number of mentions as follows: Business Administration, Business Management, Linguistics, Economics, Accounting, Engineering, Marketing, Architecture, Law, and Medicine.

Out of 556 students, 540 (97.1%) were those who studied at the bachelor level, whereas the rest, were students of the master level: 109 (20.2%), 294 (54.4%), 49 (9.1%), 83 (15.4%), and 5 (0.9%) of the bachelor level were students of the first to fifth years of study respectively.

Results
1. Do students and educators aware of the dangers of losing jobs to automation and robotization?
The frequency analysis suggests that almost all respondents (606 of 93.0%) were aware of the danger of losing jobs to robots and automation soon, as reported in Table 1.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Students</th>
<th>Teacher</th>
<th>Admin Staff</th>
<th>Related</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>523</td>
<td>47</td>
<td>28</td>
<td>8</td>
<td>606</td>
</tr>
<tr>
<td>No</td>
<td>33</td>
<td>8</td>
<td>0</td>
<td>4</td>
<td>45</td>
</tr>
<tr>
<td>Total</td>
<td>556</td>
<td>55</td>
<td>28</td>
<td>12</td>
<td>651</td>
</tr>
</tbody>
</table>
Chi-square goodness of fit test was calculated comparing the occurrence of yes/no in answers of different population segments of students and educators with the hypothesized occurrence that the level of awareness would be similar. A significant deviation from the hypothesized event was found confirming a considerable difference between how much different population segments know about the issue, $\chi^2(3, N = 651) = 20.90, p < .001$.

It was also interesting to know how the respondents learned about the possibility of losing jobs to automation and robotics in the future; the results presented in Table 2.

Table 2. The source of the information

<table>
<thead>
<tr>
<th>Learned From</th>
<th>Students</th>
<th>Teacher</th>
<th>Admin Staff</th>
<th>Related</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current survey</td>
<td>74</td>
<td>8</td>
<td>0</td>
<td>4</td>
<td>86</td>
</tr>
<tr>
<td>The news</td>
<td>308</td>
<td>37</td>
<td>17</td>
<td>8</td>
<td>370</td>
</tr>
<tr>
<td>Relatives</td>
<td>38</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>Educational institutions</td>
<td>92</td>
<td>10</td>
<td>6</td>
<td>0</td>
<td>108</td>
</tr>
<tr>
<td>Other sources</td>
<td>44</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>556</strong></td>
<td><strong>55</strong></td>
<td><strong>28</strong></td>
<td><strong>12</strong></td>
<td><strong>651</strong></td>
</tr>
</tbody>
</table>

While answers of educators were consistent with the previous question in the part that knowledge was gained before the survey, students' responses suggest that 74 of them learned about the problem right at the time of surveying, which means that some students exaggerated their answer to the previous question. Therefore, the researcher concluded that not 606 (93.9%), but only 565 (86.7%) respondents were aware of the issue before surveying.

The further analysis of comments to surveys showed that while for all the educators (16 respondents) such learning was a direct result from their professional activities, 50 (54.3%) students learned this information from the dedicated lectures, 14 (15.2%) students received it from the counselor during enrolment, and 28 (30.4%) students learned it accidentally. The same was confirmed by a chi-square test of independence which was performed to examine the relation between the source of information within an educational institution and the recipient of such information. The relation between these variables was significant only for students, $\chi^2(196, N = 556) = 247.85, p = .007$. Students were more likely than educators to learn about the problem from an educational institution.

Further crosstabulation analysis allowed to identify that these 64 students who learned information as the result of purposeful educational effort on the side of universities represent only 19 (33.3%) out total 57 universities; the top seven are Chiang Mai, Chulalongkorn, Kasetsart, Mahidol, Rangsit, Suranaree University of Technology, and Thammasat universities. The chi-square test of independence confirmed the presence of a significant difference in responses of students and educators $\chi^2(12, N = 651) = 175.28, p < .000$.

### 2. Do university programs address the needs of tomorrow's labor market?

Five-point Likert scale was used to determine how students and educators perceived relevance of university programs. Applying a harmonious interpretation of Likert-scale scores with an interval of 0.80 with a mean score of 2.72 (SD = 0.89) for this
variable, it is hard not to notice the difficulties experienced by respondents while answering this question. Descriptive statistics for central tendency and variation of distribution between answers of different population segments, presented in Table 3.

Table 3. Evaluation of universities programs

<table>
<thead>
<tr>
<th>Respondents</th>
<th>M</th>
<th>N</th>
<th>SD</th>
<th>Interpretation of Likert-scale Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>3.47</td>
<td>556</td>
<td>.972</td>
<td>Somehow Yes</td>
</tr>
<tr>
<td>Teachers (educators)</td>
<td>3.40</td>
<td>55</td>
<td>1.226</td>
<td>Neither Yes, nor No</td>
</tr>
<tr>
<td>Admin Staff (educators)</td>
<td>2.46</td>
<td>28</td>
<td>.881</td>
<td>Rather No</td>
</tr>
<tr>
<td>Related (educators)</td>
<td>1.58</td>
<td>12</td>
<td>.515</td>
<td>No, they are irrelevant</td>
</tr>
<tr>
<td>Total</td>
<td>2.72</td>
<td>651</td>
<td>0.898</td>
<td>Neither Yes, nor No</td>
</tr>
</tbody>
</table>

The chi-square test of independence confirmed the significant difference in responses of students and educators to this part of the questionnaire, χ² (12, N = 651) = 121.13, p < .001. The low and negative association between different segments of the population and how they were answering to the questionnaire was also confirmed by the results of the Spearman correlation test (r_s (12) = - .197, p < .001).

3. Do authorities provide enough of educational support for the Thailand 4.0 policy?

Applying a corresponding interpretation of Likert-scale scores with an interval of 0.80 with a mean score of 2.81 (SD = 0.90), it is easy to see that most of the respondents perceive the government’s informative effort neither satisfactory nor unsatisfactory, as shown in Table 4.

Table 4. Evaluation of the informative coverage of the problem

<table>
<thead>
<tr>
<th>Respondents</th>
<th>M</th>
<th>N</th>
<th>SD</th>
<th>Interpretation of Likert-scale Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>3.32</td>
<td>556</td>
<td>.787</td>
<td>Neither Yes, nor No</td>
</tr>
<tr>
<td>Teachers (educators)</td>
<td>3.07</td>
<td>55</td>
<td>.900</td>
<td>Neither Yes, nor No</td>
</tr>
<tr>
<td>Admin Staff (educators)</td>
<td>2.93</td>
<td>28</td>
<td>.858</td>
<td>Neither Yes, nor No</td>
</tr>
<tr>
<td>Related (educators)</td>
<td>1.92</td>
<td>12</td>
<td>1.084</td>
<td>Rather not enough</td>
</tr>
<tr>
<td>Total</td>
<td>2.81</td>
<td>651</td>
<td>0.909</td>
<td>Neither Yes, nor No</td>
</tr>
</tbody>
</table>

Chi-square test (χ² (12, N = 651) = 110.69, p < .001) and the Spearman correlation test (r_s (12) = -.170, p < .001) confirms presence of a significant difference as well as a low and negative association between responses of different population segments to this question of the survey.

4. What jobs are perceived by students and educators as being in danger of disappearance because of automation and robotization?

The frequency analysis allowed to select 93 different positions suggested by respondents, with 54 job titles repeated in more than one answer. Interesting is the fact that the list of the first eight, most frequently mentioned professions in
danger, was the same for both students and educators, as presented in Table 5.

Table 5. The top eight jobs perceived to be in danger by both categories of respondents

<table>
<thead>
<tr>
<th>No</th>
<th>The Job Though to be in Danger</th>
<th>No of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Accountant</td>
<td>147</td>
</tr>
<tr>
<td>2</td>
<td>Salesperson</td>
<td>134</td>
</tr>
<tr>
<td>3</td>
<td>Bank officer</td>
<td>85</td>
</tr>
<tr>
<td>4</td>
<td>Factory workers</td>
<td>74</td>
</tr>
<tr>
<td>5</td>
<td>Translator</td>
<td>67</td>
</tr>
<tr>
<td>6</td>
<td>Unskilled labor</td>
<td>39</td>
</tr>
<tr>
<td>7</td>
<td>Cashier</td>
<td>34</td>
</tr>
<tr>
<td>8</td>
<td>Teacher</td>
<td>24</td>
</tr>
</tbody>
</table>

The findings correlate with the forecast by PricewaterhouseCoopers Consulting Thailand, which predicts that accountants, bank officers, and factory workers will be “the first to be hit by digital disruption and the rise of automation technology and AI” (Reporters, 2017).

Discussion

The high number of respondents (N = 565, 86.7%) who claimed to know about the danger of losing jobs to automation and robotization in the future, must be treated with caution because of the traits of character of Thai people, who usually say yes and hardly say directly no when answering the question (Katz, 2011; Leelaharattanarak, 2015; Witkowski and Wolfinbarger, 2001). As such, the real number of those who were well acquainted with the topic before the survey will be smaller. In favor of this idea indicates at least the fact of distribution of answer to question whether the respondents would choose another major if they were familiar with the topic before joining the university. Only 49 (8.8%) respondents were confident in the correctness of their life choice. It can also mean that they were not well informed about the prospectives of the future job market right during the enrolment. This seems to be the case as 301 (54.1%) students believe that profession they study will be obsolete right after graduation. There are also many of those who think that they will need to change profession within the first five years after graduation.

Only 108 (19.1%) respondents learned about the danger to the labor market from education institutions, five of which are amongst the top Ten Thai Universities, as per 4ICU (2020) ranking, and three are members of the CoRE collaborative network (CoRE, 2018). This could explain why students and educators from these universities are better informed than their counterparts from other places. It also hints at the presence of some exclusivity and inequality, which may reign in the educational system.

It is necessary to say a few words about the educators, for 8 (14.5%) of them, the matter of study was utterly unknown before the survey whereas 37 (67.2%) of teachers learned about the problem from news and not from the educational institution or as the result of some purposeful educational effort by authorities or those who directly in charge of the educational field. In this regard, the question
of the relevance of university programs to tomorrow's challenges is questionable. This assumption is confirmed in answers of teachers, only 27 (49.0%) of whom believe that the university curriculums are meeting the requirements of tomorrow.

**Limitations and recommendations for further study**

The interuniversity study thought to collect data from students and educators of every single university in Thailand, which, with an eye on limited resources and time constrain, would not be possible; therefore, it was decided to be content with what was collected within the reasonable timeframe.

Considering difficulty that answerers had while responding to the close-ended items with clear yes/no options can be assumed that used in the research, close-ended questions may have reduced the precision of the instruments; thus, affected the research findings.

Delimitations and limitations of the current study suggest driving directions for future research. Amongst those could be the working with a much broader population sample of students and educators, with a focus on better representativeness of universities according to their size and specialization. Promising in this regard would be conducting the comparative, between-university studies, which could help to establish benchmarks and the best practices.

The research focus should shift into the qualitative, longitudinal, process, and quality-based evaluation realms.

It would be interesting to extend the scope of research to the high school, Matthyam level, where the exact division on academic and professional streams is happening.

**Conclusion**

The research found that the majority of surveyed 565 (86.7%) reportedly knew about the problem before the survey, which undoubtedly, can be considered an excellent result by itself. However, the close look at this findings, suggest, that only a small fraction of all students (64, 11.5%) learned this information as a result of a purposeful educational effort by institutions whereas the rest, learned it accidentally from friends, relatives, news, or from elsewhere. Taken, that these 64 students represent only 19 (33.3%) universities, it is easy to conclude that only 24.5% of all Thai universities somehow conveying the information to their students. Almost all respondents did not favor informational effort on the side of authorities, rating it as very superficial and one that does not allow to draw any connection between the problem and how to deal with it. All these enable concluding that an informative coverage of the issue in both media and universities is insufficient and ineffective.

Unsatisfactory is the fact that only 14 (2.5%) students were informed about challenges to the job market by the university counselor or recruiting specialist during the enrolment. Taken that these 14 students represent only 5 out of 57 universities, it is very likely that only 8.7% of all Thai universities have a well-tuned counseling system. Many universities do not provide such services to their students, leaving them unprepared to navigate the increasingly complex world of work (Escobarí et al., 2019). Maybe this could explain the disappointment and hopelessness of 226 (40.6%) of them, who already realized the improbability of working by profession after graduation and 301 (54.1%), who believe, that the profession they study would not be relevant right after graduation. The situation when many students could be unemployed right or
shortly after graduation can also be explained by the absence of the related university programs, the conclusion prompted by the respondents themselves.

With an eye to the conceptual framework employed by the research and to the findings, particularly the vast number of those who do not see future for professions they learning or involved in, with a great regret can be admitted that while many respondent know about the problem, not many aware of how to respond to it.

Due to the lack of alternatives for the further digitalization, automation, and robotization, the unique role assigned to educational institutions, which job is precisely to help the businesses and government in their transition to an innovation-led economy; they have a moral obligation to educate students better than they do it now. Universities need to transform themselves to serve a changing society and a profoundly changed world. The author suggests that universities should review and redo their curriculums to ensure that their programs are relevant to tomorrow’s labor market needs. In this regard, it may be advisable to transform faculty-based counseling services to student-centric; the recommendations quite like those stated in Agenda One of Thailand 4.0 model (CoRE, 2018). In turn, the authorities, especially those entrusted to support the transformation of society towards the digital-driven economy, should take care not only of the popularization of the topic but, start to offer some practical measures and tools, helping everyone to tailor their future.

Acknowledgment

I want to express my gratitude to Naresuan University International College for the research’s financial support, which became the basis for this paper, grant no. NUIC-R 01/2563. The study got the approval of NU-IRB (Naresuan University Institutional Review Board, approval letter No.0603.01.13(1)NU-IRB 3573, COA No 539/2019, IRB No.0602.62. Especial thanks to Director of Naresuan University International College, Dr. Supichaya Meesad, and NUIC Research and Academic Services staff members, particularly Ms. Suthawan Marayath and Ms. Jitlekha Meethong for their continuous support and without whom the study could not have been possible.

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Factors Affecting the Selection of Higher Education Institutions of Students in the Lower North of Thailand

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ABSTRACT

The purposes of this research were to study the factors affecting the decision of high school students in the lower northern region of Thailand to study in higher education institutions. The population were the high school students in nine (9) provinces in the lower northern region. The sample size was 2,368 students. The research tool used was a questionnaire. The researchers used the marketing mix factors to collect data, (7Ps) including Product, Price, Place, Promotion, People, Process and Physical evidence.

It was found that the all factors affecting the decision to study in higher education institutions in overall were at a high level (x̄ = 4.36). When considering each aspect in each factor, it was found that the highest-ranking factors were Place and People (x̄ = 4.45), followed by Physical evidence (x̄ = 4.40) and Product (x̄ = 4.37). The lowest ranking factors, but still at a high level were Promotion (x̄ = 4.24), followed by Process (x̄ = 4.31) and Price (x̄ = 4.34) respectively. The results of the comparative analysis of the factors affecting the decision to study in higher education institutions of the high school students which were classified by general conditions such as gender, study program, average grade, domicile, average gross monthly income of parents can be shown that 1) the comparative analysis by gender, GPA, and the average gross monthly income of the parents were not statistically significant, and 2) the comparative analysis by high school program curriculum and domicile province were statistically significant at the level of 0.05.

Keywords: marketing mix, higher education institutions, high school students, Lower North of Thailand

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Introduction

Educational management at the higher education level is very important to national development as it is a source of knowledge to develop human resources for the professional field, create research and innovation in response to the rapid change of the world. According to the policy and strategy of Thailand for higher education, science, research and innovation B.E. 2563-2570 (A.D. 2020-2027), The policy has set development goals in which 1 in 4 areas of the goals is the development of manpower and educational institutions (The Policy and Strategy of Thailand for Higher Education, Science, Research and Innovation B.E. 2563-2570, page 13, Office of the National Higher Education Policy, Science, Research and Innovation Policy Council (A.D. 2020-2027)). In this platform, the policy focuses on the production and development of high-quality manpower to support the Eastern Economic Corridor (EEC) and the country's economic and social systems, as well as promoting lifelong learning and developing skills for the future. Therefore, all higher education institutions are continuously attempting to develop themselves to have quality institution management.

Naresuan University is a higher institution, One of the goals is to serve the demands and create equality for people in the lower northern region by distributing educational opportunities, academic services, and continuous learning. From the mentioned goal, Naresuan University has created a 12th Education Development Plan, Naresuan University (A.D. 2020-2021) with strategy number one, is to produce graduates with quality and in line with the need of the country in order to increase competitiveness. Moreover, there is one strategy which is to increase the opportunity to access education for people of all ages (Educational Development Plan Naresuan University, 12th edition (2017-2021), revised edition 2020 - 2021, page 5) that focuses on providing services for the nine (9) lower northern provinces. The enrolment system of students requires studying using the admissions method provided by the Association of the President of Thailand known as the TCAS System (the Thai University Centre Admission System), a system to select people to study in the university. The university begins to use this system since the academic year B.E. 2561 (A.D. 2018). This system requires students to be able to apply for five (5) sessions. These include: 1. portfolio, 2. quota, 3. admission I, 4. admission II, and 5. direct admission. Such procedure gives students more opportunity to study at their preferred university.

Nonetheless, the students can waive the right to study if they have not accepted the offer yet. Thus, on the other hand, this is more challenging to university in order to encourage students to accept the offer to study at the university (Thai university Central Admission System B.E. 2562, page 6, Association of The Council of University Presidents of Thailand).

Under the changes in the social context and policy changes, all universities require to adapt, regarding admission of students to study in accordance with the desired goals and quality needed. At the same time, competition in the education business in the age of aging society is a challenge for every university. The statistical data of the commissioning from the academic year 2010 - 2017, found that the number of applicants is less than the number of admissions on a continuous basis. For instance, in 2017, 81,232 students were enrolled, while there were 136,030 available places (Admission.com, 2020) and from the academic year 2018 data, there was a total of 92 universities which
could have accepted a total of 390,120 students, but only 262,474 students had enrolled in the system, or only 67%, leaving more than 100,000 seats left in those universities. (https://www.longtunman.com/12469/2563 accessed 12th January 2020)

The rapidly changing trend forces every university to adjust and leap forward to keep up with the market competition along with academic development. Therefore, the researcher is interested in studying the factors affecting the decision to study in higher education institutions of high school students in the lower northern region. The information can be used to adjust the university's admission system to be in line with the requirements of students in the lower northern region, as well as to determine the direction and procedure to reach the target group, and allowing the students to access important information for their decision to apply for higher education. The aforementioned market competition is inevitable to Naresuan Univeristy. Although it is a public university that focuses on providing services in the lower northern region, each year the number of students applying to study in higher education is limited, hence, this study.

Objectives of the study
1. To study factors affecting the decision to study in higher education institutions of high school students in the lower northern region.
2. To compare factors affecting the decision to study in higher education institutions of high school students in the lower northern region.

The general conditions of students
1. Gender
2. High school program curriculum
3. Grade point average (GPA)
4. Domicile by province:
5. The average gross monthly income of the parents:
6. Persons who have an influence in choosing to study in higher education institutions

Factors Affecting the Selection of Higher Education Institutions of Students in the Lower North of Thailand

Conceptual framework

The factors affecting the decision (7Ps)
1. Product
2. Price
3. Place
4. Promotion
5. People
6. Process
7. Physical Evidence
Hypothesis
The higher education institution decision making is deterred by the difference in general conditions of the student.

Literature review
1. Naresuan University
Below is the basic information of Naresuan University from the Education Development Plan, Naresuan University, 12th edition, revised 2020 – 2021. Naresuan University is a public university which has a focus on providing services for the 9 provinces in the lower northern region of Thailand. In the year 2019, there are 17 faculties and 4 colleges, and offers a total of 225 courses. Categorized by education levels, it consists of 2 certificate programs, 79 undergraduate programs, 87 master's degrees, one advanced diploma program and 56 doctoral programs. There are 7,007 new students in the academic year 2019, which are 11 diplomas (0.16%), 6,346 undergraduates (90.75%), and 650 graduates (9.27%). In the last 4 years, the number of new students is reduced due to the increasing competition of domestic educational institutions and the changing of the structure of the population in the country, which has a lower birth rate. The university, therefore, has a new policy of enrolling students to provide educational opportunities to reduce disparity so students can access education at all ages. Naresuan University has created the university education plan, Naresuan University Education Development Plan no. 12, revised edition 2020 - 2021 to determine the direction of operation as follows:
Vision: Developing Naresuan University to become a higher education institution 4.0
Goal: 1. Develop and create innovation 2. Integrate to strengthen wisdom 3. Leading higher education to international level
As for the production of graduates, according to mission number one (1), the first strategy is to produce quality graduates and in line with national needs in order to increase competitive capability which can be defined to seven (7) strategies as follows:
  1. Develop curriculum and educational management system to be up to date, standardized, and in line with national needs.
  2. Encourage teachers to produce academic works and apply such work to teaching and learning.
  3. Developing a service system for students.
  4. Promote the organization of student development activities to enhance good people, talented people with diverse skills and discipline, aware of social responsibility and pride in the nation.
  5. Develop a system of relations between the university and alumni.
  6. Increase the opportunity of admission for people of all ages, and
  7. Develop the quality of library operation standards and information service standards to create a learning ambience for all ages (Naresuan University, 2019).
Naresuan University uses the system of admission according to Council of University Presidents of Thailand, the TCAS system or the Thai University Center Admission System, a system to enroll people to study in the university, beginning with the academic year 2018, which allows students to apply for a total...
of 5 sessions namely: 1) portfolio, 2) quota, 3) admission I, 4) admission II, and 5) direct admission.

In the academic year 2018, there were 5,166 students enrolled in the TCAS system, divided into humanities and social sciences group at the total of 2,446 students, science and technology groups for 1,451 students, and health sciences groups for 1,249 students, and when considering the number of admissions in each round, it is found that in the academic year 2018, there are students admitted in each round as follows: 1) portfolio 86 persons (1.7%), 2) quota number 2,831 persons (54.8%), 3) admission I: 1,113 people (21.5%), 4) admission II: 1,046 people (20.3%), and 5) direct admission: 90 people (1.7%).

2. Marketing mix theory
Marketing mix theory which introduced the theory of Philip Kotler (2003) are divided into 7 factors (7Ps) including Product, Price, Place, Promotion, People, Process, and Physical evidence (Kotler, 2003).

2.1. Product means products offered for sale by businesses to satisfy the needs or requirements of the customers' satisfaction. It consists of tangible and intangible things such as packaging, color, price, quality, brand, service, and seller's reputation. Products may be products, services, places, people, or ideas. Products, therefore, consist of products, services, ideas, locations, organizations or individuals. Products should have utility and value in the eyes of customers which will result in the product being sold. In this study, the factors that affect the decision to choose to study in higher education institutions of the high school students is the Products which refer to programs, curriculums, modernity and reputation of the programs. Regarding the higher education institutions, the number of years the institution is existing (the older, the better), academic recognition, quality assurance results, demands of the labor market, and the uniqueness of curriculums/programs from other institutions.

2.2. Price means the amount of money or other things that is necessary to pay to get the product which includes the product value in monetary form. Price is the second P that follows product. The Price is the cost that the customer pays. The consumer compares the value of the product and the price of that product. Therefore, the price strategy maker must consider the perceived value in the customer's eyes-consider customers' acceptance of product value as higher than product price, related costs, and competition. In this study, the factors affecting the decision to choose to study at an institution of higher education for high school students refers to tuition fees/courses, scholarships, daily expenses during their studying, parents' tuition reimbursement and educational loans.

2.3. Place means the structure of a channel consisting of institutions and activities used to transfer products and services from the organization to the market. Institutions that bring products to the target market. It means the process of moving products from the producer to the intended user. In this study, factors affecting the decision to study in higher education institutions of high school students, the place is defined as the type of selection, determination of subjects used for admission, and competition rates.
2.4. Promotion is a communication tool to create satisfaction for the brand, service, idea, or to the person which is used to encourage the demands, to remind of the product. It is expected to have an influence on feelings, beliefs and buying behaviours or as communication about information between buyers and sellers in order to create buying attitudes and behaviours. Communications may include the use of personal selling to sell and non-personal selling communication tools. The organization may choose to use one or more tools, which must use the principles of the selection of integrated marketing communications, by considering the suitability to customers, products and competitors by achieving common goals. In this study, the factors affecting the decision to choose to study at a higher education institution of high school student, marketing promotion means the form and modernity of public relations advertising and advertising in various channels, frequency of advertising, recommendations and word of mouth.

2.5. People or employees, which require selection, training and motivation so they can satisfy their customers better than their competitors. Employees must be talented, have a good attitude, be able to respond to customers, have creativity, have ability to solve problems and create values for the organization. In studying the factors that affect the decision to choose to study in higher education institutions of high school student, the Person is referring to faculty members’ reputation, current student’s reputation, the alumni’s reputation, and non-academic staff.

2.6. Process to deliver the quality of service to customers quickly and to create customer satisfaction. In marketing management, marketing executives must understand the requirements of their consumers. Manufacturers must learn about consumer needs by developing products to meet those requirements. In studying the factors effecting the decision to choose to study in higher education institutions of this high school students, the Process means teaching and learning process, extra-curricular activities, cooperation for internships, and collaboration in international exchange program.

2.7. Physical Evidence by trying to establish Total Quality Management (TQM) to create customer-value proposition whether it is cleanliness, speed or other benefits. In studying the factors affecting the decision to choose to study in higher education institutions of high school students. Physical evidence means location of higher institution, transportation, area, beauty and shady, availability of equipment, modernization of teaching and learning materials, including various facilities such as dormitories, stadiums, medical institutions and others related to physical evidence.

3. Related research
3.1. Neeranart Senachan et al. (2017, p.92-93) in her study of the factors affecting the decision making regarding higher education for children in the upper northeastern region revealed that there were five (5) positive factors affecting the decision to choose the college for the children including 1) place, equipment and facilities, 2) the quality of the students and graduates, and 3) the innovation courses. Additionally, Rotcharek Saikham and Watana Padgate (2017, p.1349) found in their study the factors affecting decision-making to further study at a higher education level. The results showed that the examination system was the most
important factor for students to consider. The second factor was the institution’s environment and the third factor was tuition fee. For the sub-factors in each factor, it was found that parents, guidance from high school teachers, quality assurance or the results of university ranking, teaching aids, library, scholarships, and admission system were the factors influencing the decision making of the students. In a similar study, Wanlapa Samrit (2017, p. 62) found that the factors influencing the decision making of public high school students in Bangkok included: the elements of the institute is as important as the number one, followed by the process and people involved with students respectively. In addition, Kraising Sudsanguan (2017, p. 202) found in his study that the factors in choosing higher education of senior secondary students in demonstration school of Silpakorn University: institutional factors, personal reason factors, economic and social factors at a high level. (Kanjanasamranwong, 2017, p. 75-76). In studying the needs of attending in graduate institute of grade 12 students in public high schools, Songkhla province, the results showed the important factors in dealing with their decisions in choosing graduate institutes were quality and reputation of institutes, society, environment, economic-financial status and the most desired university or quota selection system respectively. Another interesting finding by Wantanee Phoklang and Utumporn Waichalad (2015, p. 112) in studying the motivation to study in bachelor’s degree at the Faculty of Environment and Resource Studies, Mahidol University. The result showed five factors with the high means that that were studied include the institutional quality and reputation, the institutional environment, the curriculum, the occupation, and the economy and society.

3.2. The research to study about the comparative analysis of factors affecting the decision to study which were classified by general condition are as follows: Chutipa Keuanun and Weena Leelaprasertsil (2019, p. 2135) to study the factors correlating to making a decision to pursue higher education of Mattayomsuksa 6 students in large schools in Songkhla. The result shown gender, parents education level and occupation, Grade Point Average (GPA) were correlated to choosing university and faculty statistically significant at the level of 0.05. It also found that problems and barriers to study in higher education were in a high level. And Wantanee Phoklang and Utumporn Waichalad (2015, p. 112) The result is the students also had similar levels of motivation when classified by individual factors, except for the economy and society factor that motivates more female students than males. In addition, it was found that the public high school graduates had higher motivation to study in some faculties due to the institutional quality and reputation factor than the private high school graduates, with the significant difference at 0.05 level.

**Research Methodology**

The researcher conducted the research methodology as follows:

1. **Population and samples**

   The population used in this study was high school students in the lower northern region covering nine (9) provinces including Tak, Sukhothai, Phitsanulok, Uttaradit, Phetchabun, Kamphaeng Phet, Phichit, Nakhon Sawan and Uthai Thani. The sample group used in this research was the Mattayomsuksa 6 (senior year) students in the lower northern region covering nine (9) provinces by using the

2. Research scope
This research is a study of factors affecting the decision to study in higher education institutions of high school students in the lower northern region. The survey was conducted by using questionnaires for Mathayomsuksa 6 students using the theory of Marketing Mix (7Ps) of Philip Kotler (2003) has been used as follows: 1. Product, 2. Price, 3. Place, 4. Promotion, 5. People, 6. Process, and 7. Physical Evidence

3. Data analysis
In analyzing the statistical data from the survey by using the computer program, the statistics used are as follows: 1. Frequency, 2. Percentage, 3. Mean, 4. Standard Deviation, 5. T-test, and 6. F-test.

Results
The data analysis of the study regarding factors affecting the decision to study in higher education institutions of high school students in the lower northern region is divided into 3 parts as follows:

Part 1: Results of data analysis on general conditions of respondents' students
General conditions include gender, education program, GPA, domicile province, average gross income of the parents, and the person who influences the decision. The results of analysis are displayed as follows.

1. Gender: It was found to be mostly female (63.7%) and male (36.3%).

2. High school program curriculum:
Most of the participants study in Science-Math program (55.9%), followed by 17.3% Art-Language program, 14.6% study Arts-Calculations, and 12.2% Arts-Societies respectively.

3. Grade point average (GPA):
Most of them have GPA between 3.01 - 3.50 (34.7 percent), followed by GPA between 2.51 - 3.00 (29.9 percent) and GPA between 2.00 - 2.50 (17.0 percent).

4. Domicile by province:
Most of the students reside in Kamphaeng Phet Province (14.3%), followed by Phitsanulok Province (13.9%), Sukhothai Province (11.8%), Phetchabun Province (11.6%), Phichit Province (11.4%) and Uthai Thani Province (10.3%) respectively.

5. The average gross monthly income of the parents: It has found that most of the parents have the average gross monthly income of 30,001 - 40,000 baht (29.1 percent), followed by 20,001 - 30,000 baht (24.3 percent) and income 40,001 - 50,000 baht (22.3 percent) respectively.

6. Persons who have an influence in choosing to study in higher education institutions: It has found that the majority thought that parents have the most influence on their decision regarding further education (77.7%), followed by guidance teachers (44.2%) and friends in the school (34.8%) respectively.

Part 2: The results of the analysis of factors affecting the decision to study in
higher education institutions of high school students in the lower northern region

The study of factors affecting the decision to study in higher education institutions of high school students in the lower northern region in this study which divided into 7 factors (7Ps) include Product, Price, Place, Promotion, People, Process, and Physical evidence. It was found that the factors affecting the decision to study in higher education institutions in overall are at a high level ($\bar{x} = 4.36$). By considering each aspect in each factor, it was found that the highest ranking factors were place and people ($\bar{x} = 4.45$), followed by physical evidence ($\bar{x} = 4.40$) and product ($\bar{x} = 4.37$) respectively. The lowest ranking factor, but still at a high level are promotion ($\bar{x} = 4.24$), followed by process ($\bar{x} = 4.31$) and price ($\bar{x} = 4.34$) respectively.

2.1 Product

The factors affecting the decision to study in higher education institutions relating to Product is shown in Table 1 Product.

<table>
<thead>
<tr>
<th>Product</th>
<th>$\bar{x}$</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reputation of higher education institutions</td>
<td>4.60</td>
<td>0.52</td>
<td>The highest</td>
</tr>
<tr>
<td>2. Age of higher education institutions</td>
<td>4.20</td>
<td>0.55</td>
<td>High</td>
</tr>
<tr>
<td>3. Academic reference of higher education institutions</td>
<td>4.34</td>
<td>0.59</td>
<td>High</td>
</tr>
<tr>
<td>4. Educational quality assurance results of higher education institutions</td>
<td>4.00</td>
<td>0.60</td>
<td>High</td>
</tr>
<tr>
<td>5. Program reputation / course</td>
<td>4.35</td>
<td>0.55</td>
<td>High</td>
</tr>
<tr>
<td>6. The demands of the labor market corresponding to the curriculum / program</td>
<td>4.56</td>
<td>0.53</td>
<td>The highest</td>
</tr>
<tr>
<td>7. Modernization of curriculum / program</td>
<td>4.48</td>
<td>0.52</td>
<td>High</td>
</tr>
<tr>
<td>8. Differences in curriculum / program from other institutions</td>
<td>4.46</td>
<td>0.58</td>
<td>High</td>
</tr>
<tr>
<td>Total</td>
<td>4.37</td>
<td>0.62</td>
<td>High</td>
</tr>
</tbody>
</table>

From Table 1, it was found that, in general, product factor affecting the decision to study in higher education institutions is at a high level ($\bar{x} = 4.37$). By considered in each aspect it revealed that the product factor with the highest opinion is the reputation of higher education institutions ($\bar{x} = 4.60$), followed by the labor market demands corresponding to the curriculum / program ($\bar{x} = 4.56$) and the modernization of the curriculum / program ($\bar{x} = 4.48$) respectively.

2.2 Price

The factors affecting the decision to study in higher education institutions relating to Price is shown in Table 2.
From Table 2, it is found that, in general, the price factor affecting the decision to study in higher education institutions is at a high level ($\bar{x} = 4.34$). The price factor that has the highest opinion is the tuition fee/unit cost fee throughout the course ($\bar{x} = 4.58$), followed by daily living expenses ($\bar{x} = 4.51$) and the scholarship ($\bar{x} = 4.36$) respectively.

### 2.3 Place

The factors affecting the decision to study at a higher education institution in Place is shown in Table 3.

From Table 3, it is found that, in general, the factors affecting the decision to study in higher education institutions are in the high level ($\bar{x} = 4.45$). By considering in each aspect, the results show that the distribution factors that has the highest opinion is Enrolment methods are diverse and meets the demands (quota, admission and direct) ($\bar{x} = 4.60$), followed by the competition rate is not too high, subject to acceptance to study ($\bar{x} = 4.49$) and determining subjects for admission ($\bar{x} = 4.28$) respectively.

### 2.4 Promotion

The factors affecting the decision to study in higher education institutions in Promotion is shown in Table 4.
Table 4. Promotion

<table>
<thead>
<tr>
<th>Promotion</th>
<th>$\bar{x}$</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Format and modernity in advertisement public relations of higher education institutions</td>
<td>4.45</td>
<td>0.62</td>
<td>High</td>
</tr>
<tr>
<td>2. Advertising in many channels (flyers, brochures, posters, websites, journals, TV, newspapers, radio programs)</td>
<td>4.30</td>
<td>0.60</td>
<td>High</td>
</tr>
<tr>
<td>3. Frequency of advertisements by higher education institutions from various media</td>
<td>4.08</td>
<td>0.47</td>
<td>High</td>
</tr>
<tr>
<td>4. Guidance by receiving direct information from seniors</td>
<td>4.11</td>
<td>0.44</td>
<td>High</td>
</tr>
<tr>
<td>Total</td>
<td>4.24</td>
<td>0.45</td>
<td>High</td>
</tr>
</tbody>
</table>

From Table 4, it is found that, in general, the promotion factors have an effect on the decision to study in higher education institutions at a high level ($\bar{x} = 4.24$). By considering in each aspect, the results show that marketing promotion aspect with the highest level was the format and modernity of advertising/public relations of higher education institutions ($\bar{x} = 4.45$), followed by advertising in many channels (flyers, brochures, posters, websites, journals, TVs, Newspapers, radio programs) ($\bar{x} = 4.30$) and guidance by directly receiving information from seniors ($\bar{x} = 4.11$) respectively.

2.5 People

The factors affecting the decision to study in higher education institutions in People is shown in the Table 5.

Table 5 People

<table>
<thead>
<tr>
<th>People</th>
<th>$\bar{x}$</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Faculty members’ reputation</td>
<td>4.46</td>
<td>0.54</td>
<td>High</td>
</tr>
<tr>
<td>2. Current students’ reputation</td>
<td>4.50</td>
<td>0.51</td>
<td>High</td>
</tr>
<tr>
<td>3. The reputation of the alumni of the institution</td>
<td>4.39</td>
<td>0.57</td>
<td>High</td>
</tr>
<tr>
<td>Total</td>
<td>4.45</td>
<td>0.37</td>
<td>High</td>
</tr>
</tbody>
</table>

From Table 5, it is found that, in general, the factors affecting the decision to study at higher education institutions regarding people are in high level ($\bar{x} = 4.45$). By considering in each aspect, it found that People aspect with the highest opinions were the reputation of current students ($\bar{x} = 4.50$), followed by the reputation of the faculty members ($\bar{x} = 4.46$) and the reputation of the alumni of the institute ($\bar{x} = 4.39$) respectively.

2.6 Process

Factors affecting the decision to study in higher education institutions in Process is shown in Table 6.

Table 6 Process

<table>
<thead>
<tr>
<th>Process</th>
<th>$\bar{x}$</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Modernization and quality of teaching-learning process</td>
<td>4.48</td>
<td>0.51</td>
<td>High</td>
</tr>
<tr>
<td>2. Organizing various extracurricular activities</td>
<td>4.25</td>
<td>0.58</td>
<td>High</td>
</tr>
<tr>
<td>3. Cooperation with the workplace training</td>
<td>4.36</td>
<td>0.61</td>
<td>High</td>
</tr>
<tr>
<td>4. Cooperation for international exchanges</td>
<td>4.15</td>
<td>0.60</td>
<td>High</td>
</tr>
</tbody>
</table>
From Table 6, it is found that, in general, the factors affecting the decision to study in higher education institutions regarding process are in the high level ($\bar{x} = 4.31$). By considering in each aspect, the results show that the process aspect with the highest level of opinions was the modernization and quality of teaching-learning process ($\bar{x} = 4.48$), followed by cooperation for international exchanges ($\bar{x} = 4.36$) and the organization of various extracurricular activities ($\bar{x} = 4.25$) respectively.

### 2.7 Physical evidence
Factors affecting the decision to study at a tertiary institution in physical evidence is shown in Table 7.

<table>
<thead>
<tr>
<th>Physical evidence</th>
<th>$\bar{x}$</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Location of the university, near the community center, shopping center</td>
<td>4.35</td>
<td>0.60</td>
<td>High</td>
</tr>
<tr>
<td>2. The size of the whole area and enormity of the university</td>
<td>4.37</td>
<td>0.64</td>
<td>High</td>
</tr>
<tr>
<td>3. Beauty and shady within the university</td>
<td>4.43</td>
<td>0.57</td>
<td>High</td>
</tr>
<tr>
<td>4. The enormity and modernity of the university building</td>
<td>4.55</td>
<td>0.51</td>
<td>Highest</td>
</tr>
<tr>
<td>5. The availability of equipment and modernity of teaching media</td>
<td>4.44</td>
<td>0.56</td>
<td>High</td>
</tr>
<tr>
<td>6. Transportation and Convenient of the location</td>
<td>4.42</td>
<td>0.59</td>
<td>High</td>
</tr>
<tr>
<td>7. Other facilities</td>
<td>4.25</td>
<td>0.56</td>
<td>High</td>
</tr>
<tr>
<td>For instance, dorms, stadiums, medical institutions, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4.40</td>
<td>0.55</td>
<td>High</td>
</tr>
</tbody>
</table>

From Table 7, it is found that, in general, physical evidence and presentation has a high effect on the decision to study at higher education institutions ($\bar{x} = 4.40$). By considering at each aspect, it found that physical element with the highest level of opinion was the enormity and modernity of the institution building ($\bar{x} = 4.55$), followed by the availability of equipment and the modernization of teaching and learning media ($\bar{x} = 4.44$) and the beauty and Shady within the university ($\bar{x} = 4.43$) respectively.

### Part 3 The results of comparative analysis of factors affecting the decision to study in higher education institutions of high school students classified by general conditions.

The results of the comparative analysis of the factors affecting the decision to study in higher education institutions of the high school students of general conditions classified by gender, high school program curriculum, average grade, domicile, average gross monthly income of parents can be shown as follows:

3.1 Classified by gender: It was found that male and female students have different opinions about factors affecting their decision to study in higher education institutions thus, without statistical significance.

3.2 Classified by high school program curriculum: the results show that students in different study programs have different opinions in respect to factors affecting their...
decision to study in higher education institutions without statistical significance. When considering the comparative analysis classified by the high school program curriculum in each of the 7 factors (7Ps), it is found that the students in each high school program curriculum had different opinions on the factors affecting their decision making in 5 areas including Product, Price, Promotion, People, Process, and Physical evidence, but such difference were not statistically significant. Thus, two (2) aspects which were Place and Process, have statistically significant differences at the .05 level.

3.3 Classified by GPA. It was found that students in different level of GPA had different opinions regarding factors affecting their decision to study at higher education institutions, but it was not statistically significant. When considering the results of comparative analysis classified by the education plan in each of the 7 factors (7Ps), it is found that the students in different GPA level have opinions in regard to the factors affecting the decision making. Thus, the differences are not statistically significant.

3.4 Classified by domicile province. It was found that, in general, the students in different provinces, had opinions about the factors affecting their decision to study in higher education institutions differently, but they are not statistically different. When considering the results of comparative analysis classified by the education plan in each of the seven (7) factors (7Ps), it is found that there are three (3) aspects: Product, Promotion, Process, that the students in each GDP have different opinions about the factors that affect the decision making. Hence, the differences are not statistically significant. The other four factors include price, place, people and physical evidence. Students in each GPA level have different opinions on such factors which affect their decisions. The differences were statistically significant at the level of 0.05.

3.5 Classified by the average gross monthly income of the parents. It is found that the students whose parents earn different level of the average gross monthly income have different opinions about the factors affecting the decision to study in higher education institutions in general. However, the differences are not statistically significant. Nonetheless, when considering the comparative analysis classified by the study plan in each of the seven (7) factors (7Ps), it was found that in 7 areas include Product, Price, Place, Promotion, People, Process, and Physical evidence and presentation. Students with different average monthly incomes parents have different opinions in respect to factors affecting decision-making. Thus, the differences are not statistically significant.

Discussion
From this study, it was found that the most influential factors in choosing to study in higher education institutions were parents (77.7%), followed by guidance teachers (44.2%) and last school friends (34.8%). The results are consistent with the study of Rotcharek Saikham and Watana Padgate (2016, p.1349) which found that parents influencing the decisions of students the most. This may be because parents are the closest to students and they are the one who are responsible for the student's educational expenses directly, therefore, are most involved in the students' decisions making. Factors affecting the decision to study in higher education institutions by considered in each factor, the results show that the factors with the highest impact were the Place factor, People factor, Physical evidence factor and last presentation factor respectively. Consequently, place factors are still important because the selection system is diverse and on-demand, increasing the
chances of students entering the study, which is consistent with the Chutipa Keuanun study and Weena Leelaprasertsil (2019, p.2135). The problem and barriers to study in higher education were in a high level. Nonetheless, students value the People factor and also Physical evidence factor, which is consistent with the Wanlapa Samrit study (2017, p.62). The factors that are very important to the decision making are first the elements of the institution, followed by the teaching and learning process and persons, as such, it can be implied that the student still value the image. In a similar study, Krasing Sudsanguan (2017, p.202) found that the decision factors for further education in higher education is institutional factors. Wantanee Phoklang and Utumporn Waichalad (2015, p.112) found that the factor with the highest rate was the institutional quality and reputation followed by the institutional environment. In addition, Preedaporn Kanjanasamranwong et al. (2017) mentioned in his study that the important factors in dealing with the student's decision in choosing graduate institutes were quality and reputation of institutes, society and environment. Lastly, Neeranart Senachan et al. (2019) found that the positive factor affecting the decision to choose the college for the children include: 1) place, equipment and facilities, 2) the quality of the students and graduates, and 3) the innovation course. The visible things that can be seen by students including persons and physical conditions, environment, and the readiness and the modernization of teaching and learning media make it easier for student to decide. Considering the results of comparative analysis of the factors affecting the students' decision to study in higher education institutions, it is found that when comparing the gender, GPA, and average gross income of parents the students had different opinions with no statistical significance. The difference from Chutipa Keuanun and Leelaprasertsil (2019, p.2135) was, gender, parents' level education, and GPA were correlated to choosing university and faculty statistically significant, maybe because that study was about choosing faculty considering gender, parents' level education, and GPA. When comparing the study plans, the data shows that the students had different opinions. The students with different study plans had different opinions on the place factor and process factor. This may be because students in each study program have different application methods. Moreover, there are specialized courses in some programs and institutions that are directly enrolled students from such program. As a result, the physical environment does not affect the enrollment for such students.

Conclusion

1. The study found that the most influential person to the decision making of high school students regarding places to study in higher education institutions is the guardian, followed by guidance teacher. Therefore, the university should have a plan and proceed with communication or the way to disseminate educational information to parents more clearly. As such, the parents can receive accurate and timely information on the programs offered and can assist the student to make the right decision regarding place of study. Moreover, there should also be a plan for providing various information to guide teachers such that they can access to the university and understanding in each curriculum. As such, they can be able to guide students correctly.

2. Factors affecting the decision to study in higher education institutions with the highest opinion are Place, People and Physical evidence respectively. Therefore, the enrollment system should have various methods and serve as the requirement in
order to increase the number of applicants. Nonetheless, the university should improve physical appearance, creating a modern, beautiful environment, along with the development of teaching and learning media as those are the first priority for students to consider deciding to study at a higher education institution. In addition, the public relations of universities should show to students the physical appearance, creating a modern, beautiful environment, along with the development of teaching and learning media.

Recommendations
1. There should be an in-depth study of the factors effecting decision making to study in higher education or study the opinions of parents and teachers in relation to the factors affecting the decision to study in higher education institutions of high school students in the lower northern region.

2. There should be a follow-up study of the students after being admitted to the university whether it is as expected or other factors that can affect the admission to the university, including the limitations to apply to university.

Limitations and recommendations for further study
The limitation in this research is data collection from students in the lower northern region. It was found that each school has different data collection methods respecting further education of students. Resulting in not being able to access complete information, leads to unable to perform in-depth analysis on education paths for students. In addition, the responsible teachers in each department are constantly changing and causing the coordination to be discontinuous.

Suggestions for conducting future research, there should be a plan for data collection including informing and coordination with school administrators in each school first. Nonetheless, there should be a cooperation with the teacher regarding data collection; as such, the information can be both shared and useful for the researcher and the school

Acknowledgment
The researcher would like to thank the research grant from Naresuan University and guidance from the executives of the International College Naresuan University as well as assistance from Naresuan University staff. This study cannot be done without the kindness of all the teachers from the schools in the lower northern region who kindly cooperated and assisting in data collecting. The researcher would like to take this opportunity to appreciate and acknowledge the valuable contribution and cooperation of various persons and organizations in completion of this research.

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Creative Tourism Promotion and Management based on Local Textile Producing Communities

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ABSTRACT

This study aims to recommendations on how to promote and manage creative tourism focusing on local textiles developed with folk wisdom within the Group Provinces. This research employs an integrated approach to ensure the completeness of the research data. The samples included 16 weavers and related organizations. Interview forms were used to collect data from 400 tourists traveling to the local textile communities in the northeastern province of Thailand. The rationale analysis and descriptive analysis were conducted. The findings revealed that the community and organizations recognized the importance of tourism, as it generated income for the communities. Therefore, the local textile wisdom was used as part of the strategy for promotion and development. However, in terms of tourist behavior, the number of tourists increased by more than 15% from last year. The tourists were passionate about the local wisdom, but they were only a small group with personal preferences and high purchasing power. In terms of tourism management, campaigns must be started in order to encourage young people to participate in the local wisdom and have the power to manage the tourism. Services from young tour guides should be provided to entertain, provide knowledge and show creative works and local wisdom to tourists. As a result, the local people can take part in the tourism management.

Keywords: Tourism Development, Tourism Management, Local Textile

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Introduction

The Tourism industry is world-widely acknowledged as an industry that greatly contributes to a country’s revenue. UNWTO Tourism Towards 2030 is a broad research project in continuation of UNWTO’s work in the area of long-term forecasting initiated in the 1990s and aims at providing a global reference on tourism future development. Following the long-term forecast series of reports Tourism 2020 Vision, the Tourism Towards 2030 - Global Overview report updates international tourism projections through 2030. Central in the study are the projections for international tourism flows in the two decades 2010-2030, with as basis data series on international tourist arrivals as reported by destination countries for the period 1980-2010, taking into account subregion of destination, region of origin, mode of transport and purpose of visit. (World Tourism Organization, 2018).

Many countries see advantages in tourism industry as it requires low investment but gives high profits. In Thailand, tourism industry is also expanding and plays an important role in Thailand’s economy and communities. It brought great income, flowing in of foreign currency and distribution of profits to other parts of the country. The draft aims to recover and support the tourism sectors to be sustainable, accelerate and increase potentials in gaining profits in tourism, and improve Thailand’s tourism so it is competitive leading to gaining and distributing profits as well as sustain development in every sector. Roi Kaen Sarn Sin Group Provinces or the Middle Northeast Region includes Roi Et, Khon Kaen, Maha Sarakham and Kalasin. The objective is to create the center of trading, service, agriculture and pleasant community to live in. This Cradle of Learning and Civilization is situated on Chi River’s low plain with many archeological sites telling long history, different cultures and beautiful natural attractions. Although many things have changed because of globalization, this land still reserves its pride under the economic crisis and global warming. There are many projects including a policy to develop the center of transportation, economy, medication, education and tourism focusing on Creative Economy (The Tourism Authority of Thailand, 2014). Apart from economy, culture and way of life are also important. All of the provinces in Roi Kaen Sarn Sin’s slogans include silk, so it is plausible to emphasize the importance of these local textiles which are still developed with folk wisdom. The production sites can be integrated in promoting Creative Tourism which is now the popular type of tourism in Thailand. More and more tourists tend to be interested in experiencing the culture directly by learning cultures, traditions and ways of life in the real sites. This kind of tourism needs knowledge on both cultures and technologies. (Wisutthilak et al, 2013).

Creative Tourism is considered to be a new generation of tourism. One participant described his perspective that the first generation was “beach tourism,” in which people come to a place for relaxation and leisure; the second was “cultural tourism,” oriented toward museums and cultural tours. And involves more interaction, in which the visitor has an educational, emotional, social, and participative interaction with the place, its living culture, and the people who live there. They feel like a citizen. (Richards, 2011) This third generation requires that managers also evolve, recognizing the creativity within their city as a resource,
and providing new opportunities to meet the evolving interests of tourists (UNESCO, 2006). Tourism Authority of Thailand is launching “Creative Tourism Products Campaign” to develop marketing competency and holding “Local Strength” activities along with other second tiers provinces, building on creative activities and supporting touristic site campaign under the theme “Amazing Thailand Go Local” with the aims to motivate local community to develop themselves in terms of local tourism by using their own culture as the valuable and extinguish magnet to attract Thai and foreign tourists.

The main points for this part can be listed as there will be higher number of tourists expected by UNWTO, Creative Tourism is a new trend where tourists get exposed to cultures and local traditions in the real sites, and Roi Kaen Sarn Sin Group Provinces have the potential to promote Creative Tourism. The writer strongly acknowledged the importance of the folk wisdom, so the study on local textiles in Roi Kaen Sarn Sin Group Provinces is conducted to promote the Group Provinces to be creative tourist attractions. Apart from examining the tourism management of the local textiles in Roi Kaen Sarn Sin Group Provinces to promote Creative Tourism, the study also aims to help increase the textiles’ value and create new tourist attractions and activities by using resources already lying in the production sites and developing a concrete tourism development plan.

**Objectives of the study**
1. To evaluate readiness and potential leading to tourism management plan
2. To propose recommendations on how to promote and manage creative tourism focusing on local textiles developed with folk wisdom.

**Research methodology**
The scope of this study is determined by information on local textile producing communities in four Middle Northeastern provinces or Roi Kaen Sarn Sin Group Provinces which still rely on folk wisdom in the producing process (Praewa Kalasin Document Organizer Committee, 2009). The information was from the Queen Sirikit Department of Sericulture and other documents. The study was launched in October, 2017 and ended in September, 2018. Divided into three stages first stage survey to explore the general context in communities second stage to evaluate readiness and potential with key informants in communities and last stage propose recommendations on how to promote and manage creative tourism to stakeholder. Which is divided into qualitative research with an in-depth interview form of 9 people from representatives of related agencies. And quantitative research using questionnaires the process included 400 samplings (n-weaving in communities) using Stratified Random sampling Proportional stratified random sampling was used for each a stratum (Vanichbuncha, 1999). The target areas are as the following:

**Table 1**: Information on local textile producing communities

<table>
<thead>
<tr>
<th>Local textile producing community</th>
<th>Population</th>
<th>Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ban Wai Luem, Thawat Buri, Roi Et</td>
<td>69</td>
<td>27</td>
</tr>
<tr>
<td>Ban Hua Fai, Chonnabot, Khon Kaen</td>
<td>85</td>
<td>34</td>
</tr>
<tr>
<td>Ban Nong Bua, Kud</td>
<td>32</td>
<td>12</td>
</tr>
</tbody>
</table>
Moreover, the documentary research involved compiling related literature from both inside and outside of the country, including books, textbooks, academic articles, magazines, e-books and statistics from government and private sectors. A qualitative research method which is in-depth interview was used on key informants with Snowball Sampling Technique. The statistics used in this study include frequency, percentage, mean and standard deviation (S.D.). The information received from indepth interview was analyzed with content analysis.

**Results**

The local textile wisdom is considered as one of the cultures and the capital of the community. According to the study, it was found that the local communities in the northeast used this cultural heritage to manage tourism, which has both direct positive and negative impacts on the cultural heritage. In terms of positive effects, the cultural heritage has been conserved and restored, and it makes the new generation more aware of their heritage. As a result, the cultural heritage is prosperous, transferred, exchanged and preserved. It also results in a better understanding of humans. The negative impacts on the cultural heritage include imitation of culture, using the cultural heritage to create inappropriate tourism activities due to lack of understanding, as well as creating bad images to the heritage causing damage and loss of cultural identity.

As for sericulture tourism, the community must not consider the culture as the business capital or use it as the capital for income or benefits. The community should consider “the culture as a community capital”. After applying the cultural heritage in tourism management, the community should consider the society and the people who own the culture, grant rights and respect the dignity of the owners of the culture by giving them opportunities to manage their own culture for conservation and preservation. In addition, cultural resources, which are the capital, should be managed to develop people, economy, culture and society leading to sustainability and happiness of people in the community.

However, the local textile community still does not understand much about tourism management. There is always a question of how tourism and sericulture can be integrated. If there is to be tourism in the community, it is probably involved only sightseeing. The community still does not understand or accept the fact that they should allow tourists to take part in activities with the owners of the culture because weaving requires concentration, talent and diligence. If there is tourism, the people think that they will have to spend time welcoming the tourists, but they are pleased to have visitors to sightsee the weaving in their houses.

**Creative Tourism Promotion by Using Textile Wisdom as the Foundation**

To promote the textile community as a creative tourist destination, it must consist of the development of upstream, midstream and downstream. According to the survey, it requires 1) development of tourism and sericulture products to be
unique in accordance with the needs of the market and market fluctuations, 2) support for the creation of a network and collaboration with various departments both public and private so that the sericulture community can access information and become a learning tourist attraction, 3) creating market opportunities and linking sericulture products both domestically and internationally, as well as increasing the amount of domestic use of sericulture products, promoting and supporting the creation of sericulture tourism destinations through international cooperation.

This study evaluated the readiness and potential of the communities. This is the second stage of the study before moving to an analysis to develop a management plan. There are five aspects needed to be focused on as followings:

1. Infrastructure: From the samplings the result is high (\( \bar{X} = 3.55 \)) and when considering sub-points, the highest factor is water (\( \bar{X} = 3.65 \)), following with communication (\( \bar{X} = 3.44 \)). The lowest is public transportation (\( \bar{X} = 3.15 \)).

2. Attractions: This aspect resulted in medium (\( \bar{X} = 2.54 \)). The highest sub-points is tour guide (\( \bar{X} = 3.46 \)), following with tourist information (\( \bar{X} = 3.18 \)), and the lowest is accommodation (\( \bar{X} = 2.99 \)).

3. Services and Sericulture tourism support: The samplings gave result as medium (\( \bar{X} = 2.94 \)) with the highest sub-point local wisdom—folk wisdom (\( \bar{X} = 3.70 \)), following with good human relations—friendliness (\( \bar{X} = 3.18 \)). The lowest is the variousness of activities (\( \bar{X} = 2.13 \)).

4. Promotion: The finding shows result as high (\( \bar{X} = 3.57 \)) with the highest sub-point tourism management knowledge (\( \bar{X} = 3.20 \)), following with promotion tourism (\( \bar{X} = 3.13 \)) and the lowest is the promotion still uses outdated methods (\( \bar{X} = 2.13 \)).

5. Participation. The result is high (\( \bar{X} = 3.83 \)). The highest sub-points that the samplings agreed with is cooperation network (\( \bar{X} = 3.33 \)), following with making decisions together (\( \bar{X} = 3.27 \)). The lowest is opinions (\( \bar{X} = 2.28 \)).

Figure 1: Creative Tourism Promotion by Using Textile Wisdom as the Foundation

The five aspects can be summarized as follows:

1. Infrastructure: From the samplings the result is high (\( \bar{X} = 3.55 \)) and when considering sub-points, the highest factor is water (\( \bar{X} = 3.65 \)), following with communication (\( \bar{X} = 3.44 \)). The lowest is public transportation (\( \bar{X} = 3.15 \)).

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Creative Tourism Management by Using Textile Wisdom as the Foundation

To benefit from the tourism management of the local textile community in the Roi Kaen San Sin province group to become a creative tourism, it requires an appropriate balance between the community and tourism so
that the culture is preserved. It is an important process for raising awareness for people, tourists and entrepreneurs so that they can maintain the balance of the community’s ecosystem by using a group process where they can think and take actions together. With the systematic and successful management, the community tourist attractions will become a learning center, and there will be exchange of knowledge between networks which leads to a knowledge base for sustainable and creative tourism development. It can be concluded that the tourism management of the local textile community in the Roi Kaen San Sin province group can be promoted to be a creative tourist destination in line with the changes and trends in tourism. It can also solve basic tourism problems and lead to long-term sustainable tourism development plans which will generate income and stability in the tourism industry of the 4 provinces. The following issues require attention:

1) Develop the infrastructure and facilities by focusing on the development and improvement of the logistics system and tourism facilities. A transportation network and system that facilitate travel to neighboring countries and regions has to be established so that the country has the potential to accommodate both domestic and international tourists, as well as to facilitate tourists who visit the community.

2) Develop and restore sustainable tourist attractions by focusing on the restoration of community with the potential in sericulture both directly and indirectly. Deteriorating tourist attractions should be improved to be sustainable in order to link the main tourist attractions and the secondary tourism communities. The quality and standards of tourist sites should be upgraded to be in accordance with the current change. In addition, participation of communities and local administrative organizations in tourism development should be promoted so that tourist destinations can be developed systematically with quality and standards to create added value in tourism.

3) Develop products, services and sericulture tourism support factors by focusing on development of economy, creative activities, innovations and value-added aspects. There should be protection and security for tourists by strengthening and developing the potential of tourism personnel to be competitive to enhance opportunities and incentives for trade development and tourism investment to be able to meet the needs of tourists.

4) Create trust and promote tourism by focusing on publicizing the tourism image, creating an environment and developing a system to support tourism marketing for tourists to recognize and understand the good image of the country. Build trust for foreign tourists and raise the awareness to add value to tourism products by using proactive marketing to auction the right and attract jobs. Events should be hosted to publicize tourist spots in Thailand with the goal of allowing more tourists to travel to the provinces and communities which will result in more spendings. A domestic tourism trend should also be created with the focus on quality, environmentally friendly and sustainable tourism.

5) Improve the participation from the government, public sector and administrative organizations in tourism resource management in the sericulture community by focusing on creating and developing mechanisms for tourism management to unify tourism operations.
with integration. The aims are to reduce redundancy and to allow all sectors to participate in the management at all levels from the community level to the regional level.

6. Create and promote unique activities by increasing the efficiency of various activities to be creative in connection with the sericulture tourism development plan and the province. The creative activities in the sericulture community according to the opinion of the organizations and textile groups are 1) promoting a young tour guide in the community, 2) establishing an integrated community tourism center for tourists, and 3) creating a variety of activities so that tourists can participate with the community.

Conclusion

Tourism management of textile communities requires members’ participation in tourism management for the benefit of the community. Tourism activities should aim at creating the interaction and relationship between the host and visitors through tourism activities, which leads to learning and deep understanding about the roots of the community. It should be environmentally friendly and create a balance between tourism resources, society, culture, and way of life of members of the community. It should also create a learning experience that is valuable to visitors. The tourism management consists of planning, organization management, coordination and control, all of which require by participation of members in the community. They should participate in planning, making decisions, development, implementation, and evaluation, as well as having shared benefits.

It should also include tourism management planning for local textile wisdom by developing sericulture knowledge leading to professionalism in the digital age. Channels of news and academic information should be increased for sericulture farmers and communities so that they can access information. There should also be integration of tourism with other aspects, and farmers are encouraged to get together and take part in the production, tourism and marketing to create efficient operations.

Recommendations

According to this research, the researchers have the following suggestions for future research.

1. There should be a study on behavior and satisfaction of tourists traveling to the local textile community in the Roi Kaen San Sin province group to create more effective tourism management and to fulfill the needs of tourists.

2. Data should be compiled and databases should be set up in the Roi Kaen San Sin province group to cover all relevant aspects. Relevant information should be included in the local education curriculum so that children and youths in the community are aware of the importance of resources and those who are interested can study and learn.

3. There should be a comparative study on the tourism development of the Roi Kaen San Sin province group and that of other successful provinces in order to identify the differences and development approaches and to plan the tourism development of Maha Sarakham Province.

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References (A-Z)


A PRELIMINARY STUDY ON THE ACCEPTANCE LEVEL OF PEER-TO-PEER (P2P) LENDING AMONG THE FINANCIAL INVESTORS IN MALAYSIA

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ABSTRACT

Industrial Revolution (IR) 4.0 has impacted the attitude and behavior of an individual in accepting and adoption of new technology. The common term that is widely used to promote IR 4.0 will be Financial Technology, also known as FinTech. In recent years, the Malaysian government has been actively promoting and creating awareness of FinTech products to the public and businesses. This includes the Peer-to-Peer Lending platform (P2P). In this study, regression analysis was carried out to investigate the relationship between Perceived usefulness, Perceived ease of use, Perceived cost, Trust and Government towards the attitude to use P2P lending platforms as their new investment platform. Technology Acceptance Model (TAM) was used to identify the factors contributed to the attitude of investors.

Keywords: Peer-to-Peer Lending, Investor, Malaysia, TAM
Introduction
In recent years, the advancement of technology has transformed society and businesses tremendously. From a traditional cellphone which allows user to make calls and texts, being revolutionized into various new functions such as video call, perform daily banking transaction and even carry out daily working tasks.

Especially for financial and banking sectors, advances in technologies have allowed consumers to perform their banking transaction more easily. FinTech is a new term that is most mentioned in this Industrial Revolution 4.0. FinTech is originated from the combination of "Financial" and "Technology". FinTech is well known worldwide as well in Malaysia which provide financial service through a new technology platform.

FinTech has started in the 1950s where there is credit card technology that reduces the burden of carrying cash. Lately, the transformation has evolved to crowdfunding, Peer-to-Peer (P2P) lending and micro-funding which provide opportunity microlender or small investors to invest or borrow money from this kind of platforms.

In Malaysia, the government has recognized P2P lending platform in the year 2016 where the government has established a P2P framework on 2nd May 2016. This has created an opportunity for P2P companies to operate in Malaysia. Currently, there are eleven P2P operators in Malaysia namely Funding Society, B2B Finpal, Capsphere, Cofundr, Ethis Kapital, Alixco, microLEAP, CapBay, MoneySave, Fundaztic and QuicKash.

Most of the studies in Malaysia are focusing on the participation of SMEs in the P2P lending and regulatory issues related to it (Ghazali, and Yasuoka, 2018; Chen, Lai and Lin, 2014) and other related studies are mostly in the adoption of general FinTech products (Cham, Low, Lim, Aye, and Ling, 2017; Chuang, Liu and Kao, 2016). On the aspect, the study on investors centric of P2P lending is not widely explored. Therefore, this study is providing an alternative dimension to the study of P2P lending in Malaysia and provides a basis for future studies on expectation gap analysis among the stakeholders of P2P lending in Malaysia.

Objectives of the study
1. To investigate factors contribute to the attitude towards using Peer-to-Peer (P2P) Lending Services among financial investors in Malaysia.
2. To examine the intention of financial investors in adopting Peer-to-Peer (P2P) lending services.

Conceptual framework

![Conceptual Framework](image-url)
Hypotheses
A series of six hypotheses has been developed for this study. There are 
H1: There is a significant relationship 
between perceived usefulness and attitude 
towards using Peer to Peer Lending 
platform. 
H2: There is a significant relationship 
between perceived ease of use and attitude 
towards using Peer to Peer lending 
platform. 
H3: There is a significant relationship 
between perceived cost and attitude 
towards using Peer to Peer lending 
platform. 
H4: There is a significant relationship 
between trust and attitude towards using 
Peer to Peer lending platform. 
H5: There is a significant relationship 
between government support and attitude 
towards using Peer to Peer lending 
platform. 
H6: There is a significant relationship 
between attitude towards use and intention 
to use Peer to Peer lending platform.

Literature review
Peer-to-Peer (P2P) Lending
Peer-to-Peer (P2P) lending is the 
financial platform that linked lender and 
borrower without going through the 
financial institutions (Chen et al, 2014). 
P2P lending platform provides an 
alternative for SMEs to finance their 
business besides the conventional banks. 
P2P lending platform began to emerge in 
2015 when Zapo, the first P2P platform 
was established in the United Kingdom. As 
of 2017, there are 3 top P2P lending 
platforms in UK where Funding Circle 
have 30% market share, Zapo 24%, 
RateSetter 15% and other platforms which 
have 31% market share (ORCA, 2017). 
According to company data Morgan 
Stanley research, there will be a 51% 
growth in P2P lending platform. As China 
will be leading in the volume of 115.3 
billion dollars as compared with United 
States which consist of 54.2 billion dollars. 
In Malaysia, the biggest P2P lending 
platform is Funding Societies which 
consist of 51% of market share, followed 
by FinPal which consist of 25%, Fundaztic 
13%, Quickash 8%, Alixco 2% and Nusa 
Kapital which is only 1% (FinTechnews 
Malaysia, 2018).

In many countries, P2P lending is 
considered an illegal investment. However, 
in some countries, P2P lending has been 
legalised and made legitimate by 
regulation. In Malaysia, the regulatory 
body will be on P2P Securities 
Commission Malaysia. In other countries, 
for example, P2P lending in United 
Kingdom is regulated by Financial Service 
Authority, United States of America by 
Securities and Exchange Commission, 
China by Central bank and China Internet 
Finance Association, Canada by Ontario 
Securities Comission, and France by 
Autorité des marchés financiers.

In Malaysia, P2P lending platform has 
become an alternative financial platform 
for SMEs and start up companies. 
According to Fintechnews 2018, reported 
that P2P lending platform manage to raise 
RM 40 million between Nov 2016 to 
Jan 2018. This benefited start up companies 
and SMEs in Malaysia.

Investors (P2P Lender)
The recent report by SMEBiz (2018) has 
projected growth for both SMEs and 
investors communities in P2P lending 
platform in Malaysia. This will encourage 
the P2P stakeholders to take more 
proactive actions in alleviating the 
financial gap. This will also address the 
working capital and cash flow issues in 
the financial industry. In P2P lending platform,
investors are one of the key players to generate funds in the platform. However, the participation rate is low which stood at 1.1% according to Funding Society (2018).

According to Kristine Ng, CEO of Fundaztic (2018) reveals that most investors are mostly from investors age below 35 which consist of 59% as compared to those above 35 which contributed to 41%. This show that there is a huge perception of investment in term of age factor. According to crowdfunding statistic (2018), it was reported that there were 1,985 success campaigns for 497 companies. According to Personal Wealth’s Young Investor Survey (2016), 45% of young investors allocated 5% or less of their monthly income for investment. This show the rate of participating in investment is low.

Technology Acceptance Model
Technology Acceptance Model (TAM) is to study the effect of external variables towards personal attitude and internal belief (Davis, 1989) and it has been commonly adopted by many researchers when conducting acceptance of new technology (Park et al., 2012; Muk & Chung, 2015; Tarhini et al., 2015). To explain the effect on consumers behaviors and intention to use, Davis (1989) has proposed to use Technology Acceptance Model (TAM) examine the relationship.

In TAM model, perceived usefulness define the where a user believes that one performance can be improved by using a system. Perceived ease of use define the level where a user believes that accessing new technology is effortless and convenient. It was argued that both perceived usefulness and perceived ease of use will have influence on the attitudes of the users, and subsequently influences the intention to adopt and to invest in this study. This study adopted the TAM that has been commonly used to study user’s acceptance level towards a system. Zhang et al (2018) concurred that TAM model can be used to explain the differences in the consumer willingness to adopt information technology.

Perceived Usefulness and Perceived Ease of Use
Perceived usefulness is defined as the level to which a user believes that utilization of a system will improve one’s job performance (Venkatesh & Davis, 2000). According to Davis (1989), perceived ease of use can be explained as the level to which a user believes that using a system would be free from effort. This shows that a user’s experience with FinTech products has found them useful and easy to use, it will enhance their attitude toward FinTech products.

Chuang et al. (2016) highlighted that there is a significant relationship between perceived usefulness and perceived ease of use with the attitude towards the use of FinTech products. The study also underlined the benefits of FinTech, namely usefulness, user-friendliness, time-saving and convenience. Besides, Al-Fahim et al. (2016) in their study on the banking industry in Yemen also found that usefulness and ease of use of a banking system has a positive influence towards user’s attitude and intention to use internet banking.

Perceived Cost
Perceived cost is defined as the level to which a person perceives the cost associated with the usage of a product (Kleijnen et al., 2004). It was argued in the study by Kleijnen and colleagues that cost has negative impact on the individual’s attitude to use a system. Furthermore,
Luarn and Lin (2005) found that perceived cost has a negative influence on the attitude of consumers to use as cost usually becomes a priority when it comes to product selection.

**Trust**

Chuang et al. (2016) defined that trust is based on the relationship between people and people, people and objects or people and things. On the other hand, trust can be also explained as how willing someone to use FinTech products (Yousafzai et al., 2005). Mukherjee and Nath (2003) define trust as a cross-disciplinary idea. Rotter (1967) explained that trust is a “generalized expectancy held by a person that the word of another can relied on”.

Trust has always been a focus in addressing perceived usefulness and perceived ease of use. According to Hu et al. (2019) explained that in the adoption of FinTech services or product, the role of trust play an important role as trust will increase the credibility of the products and this has also supported by Marakarkandy et al. (2017).

Hu et al. (2019) study shown that trust will be influence by the perceived risk of a user. The higher the trust of the user the higher chances that the user will use the new technology and adopt the service. In Thaker Thaker, Rahman, Amin, Pitchay, and Olaniyi (2019) argue that trust is a significant element that influence investors intention to invest. Government support able to increase the trust level of an individual (Hu et al., 2019).

**Government support**

Government support can be explained as government effort in providing legal regulation and proper infrastructure to the public (Tan and Teo, 2000). Government support is rarely being studied on the influences toward FinTech services. Marakarkandy et al. (2017) found out that there is a negative relationship between government support and intention to use online banking in India. But it showed a positive relationship between trust and government support. Government play an important role in promoting FinTech service as the support from government will increase the trust level of an investors (Hu et al., 2019).

However, Hu et al. (2019) studied the relationship government support and intention to use toward FinTech services. The result shown there is a positive relationship between government support and intention to use. In the study also explained that there is a positive influence between trust and government support. As the government is the higher authority hence with the support of government and proper regulation on FinTech services it will able to enhance the trust and adoption toward FinTech products.

**Linking Attitude and Intention to Use P2P lending platform**

In prior studies explained that there is a positive relationship between attitude and the behavioural intention of individuals (Chuang et al., 2016; Venkatesh & Davis, 2000). It can be translated that a user willingness to use a product will be influence by his or her experience in using the FinTech products. This has been supported by Chuang et al. (2016), as there is a positive relationship between intentions to use and attitude towards FinTech products. Similarly, Lee (2016) also found that the attitude of users has a significant impact on the user's intentions to use Mobile Enterprise Applications (MEA). Moreover, Lee (2009) in his study showed that attitude is a positive factor of
consumer's intention to use internet banking. Hence, it can be affirmed that there is a positive relationship between attitude and intentions to use.

Research methodology
Quantitative method was used in this study to examine the factor that would affect user attitude to use P2P lending platform and intention to use P2P lending platform. In this study, the targeted population are focused on Inventors who are P2P lending investors.

A total of 150 questionnaires have been distributed randomly to financial investors who invested in P2P lending platforms. According to Green (1991), rules of thumb can be applied to determine the sample size for regression analysis which is 104 + K. K represent the number of independent variable. In this study, we have a total of 5 independent variables hence 104 + 5 is sufficient to analyse regression analysis.

This study has conducted a reliability test on the variables presented in Table 1 on Cronbach Alpha on each variable and regression analysis have used to analyze the relationship between variables.

Results
Demographic Analysis
Table 2, explained the demographic of respondents according to gender, age, married status, employment and education. In Table 2, the result shown that majorities of the investors are below age 40 which represented about 88%. In 2018, Funding societies CEO mention that most of the investors are between age 20 to 40. This could be due to the acceptance level of younger generation is higher as compare with those who are above age 40. It is mentioned in Thaker et al 2019 that young investors are more suitable in P2P lending platforms due to flexibility and accessibility.

In Table 3, shown the P2P lending platforms that invested by P2P investor. It is shown that about 50% of the respondents have invested in Funding Society which is one of the leading P2P lending platforms in Malaysia which contributed 51% market share in P2P lending platforms in Malaysia according to FinTechnews Malaysia, 2018. Fantastic is rank second with 17.95%, QuickKash is 12.82%, B2B Finpal is 11.54% and Alixco is 7.69%. Based on the respondents data, able to explained that Funding Society is the most popular platform as compared with other companies.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach's Alpha</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived usefulness</td>
<td>0.715</td>
<td>2</td>
</tr>
<tr>
<td>Perceived ease of use</td>
<td>0.670</td>
<td>2</td>
</tr>
<tr>
<td>Perceived Cost</td>
<td>0.640</td>
<td>2</td>
</tr>
<tr>
<td>Trust</td>
<td>0.729</td>
<td>3</td>
</tr>
<tr>
<td>Government</td>
<td>0.862</td>
<td>3</td>
</tr>
<tr>
<td>Attitude to use</td>
<td>0.899</td>
<td>3</td>
</tr>
<tr>
<td>Intention to use</td>
<td>0.941</td>
<td>3</td>
</tr>
</tbody>
</table>
Table 2: Demographic Table

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
<th>Employment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>58%</td>
<td>Government</td>
<td>4%</td>
</tr>
<tr>
<td>Female</td>
<td>42%</td>
<td>Private</td>
<td>58%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>Retired</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-employed</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage</th>
<th>Education</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 to 30</td>
<td>54%</td>
<td>Postgraduate</td>
<td>14%</td>
</tr>
<tr>
<td>31 to 40</td>
<td>34%</td>
<td>Pre-University/Diploma/Certificate</td>
<td>22%</td>
</tr>
<tr>
<td>41 to 50</td>
<td>4%</td>
<td>Secondary Level</td>
<td>6%</td>
</tr>
<tr>
<td>51 to 60</td>
<td>2%</td>
<td>Undergraduate</td>
<td>58%</td>
</tr>
<tr>
<td>61 and above</td>
<td>6%</td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Married Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>18%</td>
</tr>
<tr>
<td>Single</td>
<td>82%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3: Summary of P2P lending platform invested by respondents

<table>
<thead>
<tr>
<th>P2P Lending Platform</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding Society</td>
<td>50.00%</td>
</tr>
<tr>
<td>Fundaztic</td>
<td>17.95%</td>
</tr>
<tr>
<td>QuicKash</td>
<td>12.82%</td>
</tr>
<tr>
<td>B2B Finpal</td>
<td>11.54%</td>
</tr>
<tr>
<td>Alixco</td>
<td>7.69%</td>
</tr>
</tbody>
</table>

Regression Analysis

Regression analysis was used to analyze the relationship between independent variables with dependent variable. In Table 4 explained the descriptive statistic of all variables. Based on Table 4, perceived ease of use has the highest mean of 4.3367 which mean most of the respondents agree that P2P lending platform easily to access and perceived cost has the lowest average of 3.33 where respondents merely agree on the charges of P2P lending are lower than other investment platforms.

In Table 5, is the regression analysis that explained the relationship between Perceived usefulness, Perceived ease of use, Trust, Perceived cost and government towards attitude to investing in P2P lending platforms.

Based on the result, all variables have significant relationship towards attitude to use P2P lending platform in Malaysia. Perceived usefulness has a significant relationship for an individual to invest in
P2P lending platform where the P-value is less than 0.05. Perceived ease of use has a P-value of 0.009 which is also less than 0.05 which is significant towards P2P lending platform. For Trust, the P-value is 0.003. Government support is the most significant affecting investors to invest in P2P lending platform which the P-value is 0.000. Perceived cost P-value is less than 0.05 which is 0.043. In the past study, did explain that cost is not a significant impact however in past studies also stated that cost remains uncertain. Perceived cost is significant could be due to investors are more sensitive towards cost when investing in financial platforms.

Table 4: Descriptive Statistics for all variables

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PU</td>
<td>150</td>
<td>1.50</td>
<td>5.00</td>
<td>3.9700</td>
<td>.81147</td>
</tr>
<tr>
<td>PE</td>
<td>150</td>
<td>2.00</td>
<td>5.00</td>
<td>4.3367</td>
<td>.66689</td>
</tr>
<tr>
<td>Trust</td>
<td>150</td>
<td>1.67</td>
<td>5.00</td>
<td>3.4667</td>
<td>.79145</td>
</tr>
<tr>
<td>Cost</td>
<td>150</td>
<td>1.50</td>
<td>5.00</td>
<td>3.3300</td>
<td>.81271</td>
</tr>
<tr>
<td>Gov</td>
<td>150</td>
<td>1.00</td>
<td>5.00</td>
<td>4.0600</td>
<td>.72873</td>
</tr>
<tr>
<td>Attitude</td>
<td>150</td>
<td>1.00</td>
<td>5.00</td>
<td>3.0533</td>
<td>.73277</td>
</tr>
<tr>
<td>Intention</td>
<td>150</td>
<td>1.00</td>
<td>5.00</td>
<td>4.0133</td>
<td>.98526</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Regression analysis between Independent variable with attitude to investing in P2P lending platform

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-.213</td>
<td>-.799</td>
<td>.426</td>
</tr>
<tr>
<td></td>
<td>PU</td>
<td>.168</td>
<td>.185</td>
<td>2.928</td>
</tr>
<tr>
<td></td>
<td>PE</td>
<td>.171</td>
<td>.154</td>
<td>2.664</td>
</tr>
<tr>
<td></td>
<td>Trust</td>
<td>.161</td>
<td>.175</td>
<td>3.066</td>
</tr>
<tr>
<td></td>
<td>Cost</td>
<td>.113</td>
<td>.127</td>
<td>2.042</td>
</tr>
<tr>
<td></td>
<td>Gov</td>
<td>.446</td>
<td>.448</td>
<td>7.145</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Attitude
Table 6: Regression analysis between intention to invest and attitude

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Constant)</td>
<td>-.175</td>
<td>.274</td>
<td>-.639</td>
</tr>
<tr>
<td></td>
<td>Attitude</td>
<td>1.059</td>
<td>.068</td>
<td>.788</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Intention

Discussion

In this study show that perceived usefulness, perceived ease of use, perceived cost, trust and government support are significant factors affecting investor’s attitude in P2P lending platforms.

Transformation of technology, explained that even investors can invest in a new platform when it provided flexibility to access to their investment portfolio. For perceived ease of use, the investors can review their investment portfolio anytime and easy to access to the platforms. Investors are also concern on their cost that will be charge especially most investment will also charge service charges or agent fees to do investment.

In this study, explained that trust has a significant relationship toward attitude to invest in P2P lending platform which supported with the finding by Hu et al (2019). Trust is an important element for investor to make decision that consistent with Thaker et al (2019) finding that trust has significant influence towards intention to invest.

Based on the result most of the respondents have trust in P2P lending platforms and believe that the companies have investigated and reviewed all borrower’s information and date before approving the loan. P2P companies could provide more education materials, customers feedbacks, collaborate roadshows with government to educate the public regarding P2P investment platforms to strengthen the trust of the investors. Government support has played a significant role that determine whether investors will continue to invest in P2P lending platforms. Most of the respondents believe that the government has implemented a regulations to govern P2P lending and crowdfunding systems. This is to ensure that legit and legal.

The analysis has explained that attitude and behavior intention has significant relationship in investing P2P lending platform which is consistent with Chuang et al (2016) finding that there are significant impact between behavior intention and attitude of a person to adopt FinTech service.

Conclusion

This study explained that government support has a strong significant impact towards investors attitude to invest in P2P lending platforms. Which consistent with Hu et al (2019) and Marakarkandy et al (2017) finding explained that government support able to increase the trust level of a person.

In Malaysia, P2P lending is regulated under securities commission Malaysia in 2016 however it is not protected under Perbadanan Insurans Deposit Malaysia (PIDM). PIDM is a government agency under Malaysia Deposit Insurance.
Corporation Act that protect depositor for deposit in banks, takaful and insurances. Hence P2P lending operators might consider to have discussion with government to discuss how to include P2P lending under PIDM protection and this might able to increase the trust level of investors.

P2P lending operators and government might able to improve the awareness of the public to understand what is P2P lending platform and how to invest through roadshows, seminars and campaign. Once an individual understand how to invest digitalty and have trust in investing P2P lending platform this will improve the attitude of a person to invest in it then will affect the behavior intention to invest in P2P lending platforms.

Limitations and recommendations for further study

The limitation of this study is limited respondents which only 150 P2P lending investors which cannot represent the whole population. It is also to propose that future research to increase the number of respondents.

In this study, there are few variables was not taken into the analysis which is risk and competitive advantage which can be incorporated into future research.

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Information & management, 42(5), 719-729.
Study on Globalization Process, Problems and Countermeasures of China Mobile

Lei Qinying
Chongqing Normal University Foreign Trade and Business College

ABSTRACT

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China Mobile Communications Group Co., Ltd (hereinafter referred to as ‘China Mobile’) is one of the three telecom operators in China with the registered capital of RMB 300 billion and asset size of trillions of RMB. Till July, 2019, China Mobile was listed among the Fortune Global 500 companies and ranked 14th among the top 500 enterprises of China in 2019. It is a truly large and strong enterprise. The globalization process of China Mobile could be divided into two periods: first comes the active expansion period which is from 2000-2010, and later approaches a prolonged period of stagnation which means China Mobile basically abandoned the overseas market. The ten years globalization is failed; the global market of China Mobile develops slowly and produces very little effect. It has lower market profit rate and smaller contribution to the group compared with the domestic market. The globalization process of China Mobile is summarized and the problems are analyzed in this paper, which to find the reasons why the China Mobile failed, then provides the countermeasures and suggestions for the similar telecom service enterprises which adopting foreign direct investment policy.
I. Overview of the globalization process of China Mobile

1) Reorganization to go public and connect the global market

Compliance with international rules, implementation of market economy and reform of enterprise systems are all required before going abroad. In October, 1997, Zhejiang and Guangdong Branches of China Mobile funded and co-established the China Mobile Hong Kong Company Limited (former name China Telecom (Hong Kong) Co., Ltd.) and went public in Hong Kong and New York according to the deployments of and requirements on China joining WTO. Since then, China Mobile started the journey to international capital market, marking that the management systems of telecommunication companies in China are brought in line with the international and modern enterprise systems. From 2002-2004, China Mobile Hong Kong Company Limited accomplished the equity acquisition of China Mobile branches all around China and China Mobile realized the overall listing plan. Then, China Mobile Hong Kong Company Limited also became the first China telecommunication enterprises to go public abroad among the three operators.

In March, 2005, China Mobile, Singapore Telecom and Etisalat competed for the equity acquisition of Pakistan Telecommunications Company (PTCL), which was the first try of overseas acquisition for China Mobile. At last, Etisalat beat China Mobile (USD 1.4 billion) and Singapore Telecom (USD 1.167 billion) at USD 2.6 billion and acquired 26% shares of Pakistan Telecommunications Company (PTCL). Local Pakistani media disclosed that the intentional price was USD 1.38 billion and the offer of China Mobile was only 2 points higher on this basis. Considering all the factors, the acquisition offer of USD 1.4 billion was reasonable. From the perspective of capital market, it was more a reasonable choice than a failure.

In 2006, China Mobile was faced with another chance of overseas acquisition. The mobile operator Millicom International Cellular Company with the headquarters in Luxembourg was to be sold off overall. Millicom had 9.89 million users, which couldn't match the hundreds of millions of users of China Mobile. But it was a transnational operator with 17 subnets, covering 16 emerging markets including Latin America, Africa and Asia. Its abundant overseas operation experience and the growth market with high possibility of high-speed profit attracted China Mobile. Then, China Mobile started to buy in with the private equity organization Bain Capital Partners LLC. The negotiation then was on the difference between the market value of Millicom (USD 5.6 billion) and the reference value (USD 4.0 billion) reached by an investment bank for China Mobile. During the signing stage, China Mobile declined the agreement for the excessive acquisition premium, large political risks of the emerging country and difficulty in post-acquisition management. After the acquisition failure, China Mobile's share price did not fluctuate much, but Millicom's share price fell sharply. This shows that China Mobile's abandonment of the acquisition of Millicom was recognized by the capital market. But later, Millicom's market value rose to a maximum of 15 billion US dollars. Facts have proved that China Mobile missed the best time to acquire.

From then on, China Mobile has never stopped going global and continues to look for the acquisition target.
(II) Acquisition and participation for going global

In October 2005, China Resources Wanzhong Telephone Co., Ltd., a listed company in Hong Kong, announced that China Resources Wanzhong will transfer 66.5% of its shares to China Mobile. The acquisition was finally completed in March 2006 for HK$2.25 billion. The user market share of China Resources Wanzhong is about 15.3%. It is the fourth largest mobile communications operator in Hong Kong. This became the first milestone for China Mobile to step out of the Chinese mainland market.

In June 2006, China Mobile signed the official contract with STAR Group Limited of American New Corp to purchase 19.9% shares of Phoenix Satellite TV from STAR. China Mobile became the second largest shareholder of Phoenix TV and completed its second step towards the overseas expansion through the participation in Phoenix TV.

In February 2007, China Mobile successfully purchased 88.86% outstanding shares of the fifth largest operator in Pakistan, Paktel, and finished the shares acquisition from minority shareholders in May of the same year. With 100% shares, China Mobile changed its name to CMPak, Chinese name of “辛姆巴科公司（China Mobile Pakistan Company）”. The total cost of the acquisition was USD 300 million. It was remarkable that Paktel was a subsidiary of Millicom and its performance was at the bottom among the subsidiaries of Millicom around the world. Upon China Mobile purchasing the company, the value assessment on Paktel from Millicom was zero, but a year later, its acquisition price rose to USD 300 million. It was because that China Mobile discovered the rapid growth of mobile network market in Pakistan within one year. The data from Pakistan Telecommunication Authority (PTA) showed that the user coverage of mobile market in Pakistan was 8% in 2004 and rapidly rose to 22% in 2005. When China Mobile purchased Paktel, the coverage rate reached 39% and further rose to 54% in the end of 2007 and 61% in 2010 stably. The upsurge of emerging markets attracted global investment very much. China Mobile was wise to enter the field during the rapid market expansion process. The acquisition also promoted China Mobile to realize the transnational management and was an essential step for China Mobile’s going global strategy. CMPak has become the first and only overseas wholly-owned subsidiary of telecom enterprises of China. China Mobile also put additional investments in CMPak based on its strong economic strength. In 2007, it invested USD 700 million for preliminary network construction and USD 800 million to launch a new brand called “Zong” in 2008. USD 500 million was made in 2009 for network expansion and maintenance. However, the high input doesn’t always bring about high return. According to the statistics of Pakistan Telecommunications Authority (PTA), China Mobile ZONG ranks fifth among the six operators, and the total number of users is far from the top four. It only occupies 7% market share, which is far from the originally set 20-25% market share target.

II. Analysis of problems in the globalization of China Mobile

The global operation of China Mobile is far inferior to that of the same-level operators and even lags behind the globalization degree of large state-owned enterprises. The globalization process of an
enterprise is affected by local politics, economy, market and other external environment factors and internal management system and culture of the enterprise. Then, the problems during the globalization process of China Mobile will be analyzed from the external environment and internal factors.

1) External environment analysis for the retardation of globalization of China Mobile

1. Significant competition environment difference of the target country and failure in adopting the domestic market strategies

The advantages of China Mobile are the good network coverage and high-quality user experience. Though the price is slightly higher, China Mobile still occupies the leading position in domestic market. In the quasi-monopoly telecommunication market of China, the slightly higher price with excellent network quality will not lead to the loss of users, but bring about higher rate of capital return. However, the telecommunication markets abroad are mostly open markets, greatly different from the domestic markets and leading to the especially fierce competition among operators. The competition of brands is replaced by competition of price, so the brand competition mode of high quality and price in domestic market cannot work in foreign markets.

In terms of Pakistani market, the fierce competition was presented through the proportion of quantity of users and operators. In mainland China, there are 1 billion users and only 3 operators, while there are 97.58 million users and 5 main operators in Pakistan. Obviously, Pakistani users have more chances for operator selection. Secondly, only a little activation tax is required for Pakistani users for the access to a new network and they can easily turn to a new operator with their phone numbers unchanged, i.e. number portability service. Under such conditions, the user is significantly reduced, but China Mobile has been used to the high-loyalty customers in domestic market. Even though the price is high, the users in domestic market have to stand it because of the inconvenience of change of number. With number portability, users are likely to turn to another operator with lower price and the high quality and price strategy cannot work here. In addition, the low per capita GDP of the country also provides the fact that the users emphasize price very much during operator selection and China Mobile doesn’t have the price advantage.

At last, the different levels of market openness result in the fierce price competition. “Divided management and conditional competition” principle is applied in the telecommunication industry of China, while the telecommunication industry supervision of Pakistan abides by the idea of “open market and full competition”. The Mobilink, Ufone, Telenor, Warid6 and other telecommunication companies of Pakistan are equipped with abundant global operation experience and Telenor with its headquarters in Norway is famous for the market management principle of 1 dollar, i.e. obtaining advantages through price war.

In summary, fierce price competition has made user coverage rate the most important indicator for the profit of operators, which means that who has more users will realize scale economy and gain profit. The high quality and price brand competition strategy of China Mobile doesn’t emphasize the growth of the quantity of users only, but the growth of ARPU value of users (average revenue per user). The greatly different
telecommunication market of the target country brings about the fact that successful experiences in domestic market cannot be applied here, and even seriously impedes the development of China Mobile.

2. Greatly different market supervision rules of the target country and lack of global operation experience

Though Pakistan and China maintain a friendly relationship, the difference in market supervision rules brought by different socio-economic systems cannot be neglected. China Mobile didn’t sense the detailed problems in daily work and lacks global operation experience when entering Pakistani market.

Pakistan is an underdeveloped capitalist country and the English and American type capitalist market economy prevails. Land privatization policy poses a large cost for China Mobile since the network construction of telecom operators need lots of base station and machine room land, which was almost free in China. But in Pakistan, land is privately owned and the construction of base stations and machine rooms cannot be planned uniformly. Direct state acquisition is not applicable for Pakistan and the machine room land needs to be rented or purchased as appropriate. This not only leads to the increase of station construction cost, but the large increase of human resource cost and management cost for communicating with local people.

In the open market, the government cannot directly interfere with the market competition and China Mobile cannot enjoy any special policy in Pakistan. However in China, the communication operation license is directly issued by the Ministry of Industry and Information Technology to the operator according to the communication industry supervision policy of China. The licenses are highly concentrated to the three operators and all the operators are full license operators. But Pakistan has more license types than China and the operators receive the licenses through bidding. Both the types of licenses and charges are diversified. E.g. local, long-distance and mobile telephone licenses are different and all require payment. In addition, all types of licenses have a limited validity. Even if China Mobile acquired lower price for license use due to good political relationships, the bidding expenses vary from USD 5 million to USD 0.7 billion, leading to the rising cost of operators.

(II) Internal factor analysis for the retardation of globalization of China Mobile

1. The enterprise management lags behind the development level

Ever since the date of establishment, China Mobile has witnessed several transformations and reforms. Its organizational structure has improved, while the management system remains unchanged. The out-of-date management model is no longer suitable for the development situation of China Mobile, especially its diversified global development.

Firstly, China Mobile applies the pyramid structure management mode. As the administrative organ, the Group Corporation implements the integrated and refined management over the country from top to down. The excessive management levels and overly centralized control are inconsistent with the diversification trend of global market, leading to the low efficiency. Secondly, the Group head is appointed by the superior government authority and owns double identities of the
manager and government officer. The functional orientation requires the Group head to pay more attention to the ‘leadership’ rather than the enterprise management. The administrative management restricts the development of entrepreneurship as well as the innovative thinking and risk control. Thirdly, the invisible lifelong employment system results in the shortcomings in the stimulation and restriction system of enterprises. The staff’s thinking mode is outdated and the enterprise is in urgent need of vitality.

At the same time, China Mobile became larger and more scattered after several reforms. The number of divisions in a department increases and there is lots of repetition. Under such circumstances, the functional orientations become vague. Then, the departments tend to shrink the front and sacrifice others for their own benefits based on protectionism, leading to increasing in-fighting within the Group.

Once there is a problem, the network management department blames the optimization department that further blames the construction department. The construction department blames the procurement department, while the market department turns to blame the network department. All departments decline to shoulder the responsibility and neglect the most essential issue: When customers enjoy the communication service, they will not investigate who provides the service, but just enjoy it.

2. Cultural difference causes the failure in global market

The failure of globalization of China Mobile is also caused by the cultural difference and the resulting problems, including the use of wrong person, enterprise culture difference, insufficient staff cohesion and restricted business development.

Firstly, a major mistaken occurred when China Mobile went out of China the first time and still complied with the traditional Chinese cultural thinking. Thus, we believed that only the person of our Group was trustworthy and refused the suggestion from the international consulting agency that ‘retain the original group, especially the management group’. We dispatched employees abroad rather than hired the local workers and the core positions were all occupied by Chinese staff, including human resource and finance positions requiring communication with local organizations. Language was the natural barrier. The employees dispatched to Pakistan were incompetent in language and failed to achieve the expected communication effect. Even if the employees were able to communicate in English, the cultural connotation of language was difficult to acquire. Low context occurred in the communication between different languages inevitably, so the effective emotional connection cannot be established and the integration into the local was even harder.

The cultural difference of enterprise and insufficient staff cohesion also led to the failure. Restricted by the general economic development level, the education in Pakistan is undeveloped and the number of schools cannot satisfy the need of the large population. School attendance rate of primary school there is quite low. The popularization rate of primary education is low and the population receiving the higher education is extremely limited. Among the Pakistanis receiving education, they are greatly influenced by English and American culture and emphasize the realization of personal value more. Therefore, they frequently quit and regard the enterprises
as the platforms at different stages of their occupational careers. The local Pakistani employees were careless about work and the management systems of the Group could not be performed fully.

At last, though the Pakistani employees are good at expression, they are lack of horizontal communication skills and weak in execution, greatly influencing the effect of various measures of the Group. If a problem occurs, the conflict in horizontal communication leads to the failure in forming a closed loop for problem solving. The work habits of Pakistani employees are stable in a fixed position, and they do not strive to work upstream. This leads them to not focus on learning at work, rarely cross-professional work in the industry, and often can only be responsible for certain module, but the management team often requires certain industry experience, good communication and coordination. This makes China Mobile unable to achieve ideal communication with local government and enterprise departments and people through local employees in Pakistan under the situation of poor communication between local employees and locals, which ultimately restricts the good development of the business.

III Countermeasures to promote the globalization of China Mobile

(I) Expanding the target market suitable for developing its own advantages

China Mobile is still in the initial stage of internationalization. When choosing an overseas market, it is necessary to choose a market that is similar to the domestic market or has close business links. For example, choose a few typical areas where the degree of economic development and consumption capacity are similar to the domestic market, in line with the survival of your own business model, and you can copy your own successful business model. In this way, the operational risks of market development are reduced, so as to ensure the company’s investment benefits as much as possible.

The coherent advantage of China Mobile is the relatively abundant labor resources in China and leads to its comparative advantage in China’s handset manufacturing industry. The Company purchases the low-cost contract phone in a large scale and provides them for the customers for free through signing contracts or at a low price, in order to ‘bind’ the users and improve the penetration rate of China Mobile through the increasing device penetration rate.

China Mobile is good at the application and development of data service and provides good experience for customers through its mature operation. It uses the contract phone binding mode of “mobile phone + rates + flow + membership” to enhance the customer retention. So, it is supposed to select the overseas market allowing the full development of its operation advantages including value-added business services, buy in the shares of local operators based on its core competitiveness, carry out the value-added data services in its operation mode to improve the ARPU value (average revenue per user) and develop its fundamental telecom services after a certain user scale has been met.

(II) Combination of cooperation and outsourcing to manage the overseas market with local operators

Considering going global, China Mobile must learn the market rules abroad, but how? The successes of Deutsche Telekom AG and France Telecom in
expanding the overseas market can be our references, i.e. cooperation with local operators or equity exchange and soft investment rather than asset acquisition. We can form a strategic alliance with the operators of the target country and reach cooperation agreements on use of licenses and complementation and interconnectivity of network to share the station resources of local operators and solve the resource allocation issue under land privatization system through lease rather than establishment or bidding.

As for operation and maintenance, service outsourcing can be applied to deliver the maintenance of stations to the local companies. The local companies are familiar with the local custom and residents’ behavior mode, which is beneficial to improve the efficiency of operation and maintenance services and reduce the cost. At the same time, China Mobile focuses on its strengths, its competitiveness, and gets rid of the non-core services. Then, the general work efficiency will be improved.

(III) Introducing market-oriented employment mechanism and changing from functional management to process management

Besides the external factors, internal management innovation is also essential. China Mobile has to establish the manager market conforming to the common law of market, introduce the technical experts and professional managers, restrain the operators with the accountability and motivate the employees through market-oriented methods. It is required to implement the employee stock ownership plan in the Company and fully combine the interests of the enterprise and employees based on years of employment and contribution level to improve the incentive mechanism. In addition, the restrictive mechanism needs to be optimized and exit mechanism established to build a flexible entry and exit system of employees and maintain the vitality of the enterprise.

In terms of management mode, China Mobile can learn from the practice of domestic communication equipment manufacturer Huawei, and hire professional third-party consulting companies to help enterprises establish customized process management, promote flat management, and improve work efficiency. For the current China Mobile, the processes are distributed in various departments, and they are rigidly separated by the boundaries of the departments. Modern enterprise management should abandon the enterprise standard and focus on the customer. Only by carrying out the whole process management around the customer can the job function be clarified, and the work efficiency can be greatly improved. Designing the management model based on the process can solve the problem of conflicts between China Mobile's management ideas and management model and modern enterprise management, realize the conceptual change and method improvement from the company's overall level, and make the company's decision-making power and execution Strength, control, and management efficiency and level have been significantly improved.

(IV) Constructing the new enterprise culture and preparing a reserve of cross-cultural management talents

The different enterprise cultures and diversified national cultures bring about difficulty and challenge for the cultural integration of the enterprise. The problem can be solved through construction a new culture based on three levels, internal core value, enterprise rules
and systems and internal and external brand promotion. The new culture emphasizes mutual respect and understanding, team efforts and construction of the common value. The improved system is critical in communication management, and a multi-channel communication mode should be established. Language training can be scheduled for team activities and included in the assessment of KPI. The cultural communication activities should be carried out on such bases to create the atmosphere of cultural fusion.

The reserve of talents consists of local talents and domestic talents. Local talents can be introduced and employed for some core positions and then cultivated by China Mobile for the purpose of localized management. The domestic talents who are familiar with the legal environment of the target country and equipped with global market operation skills should be employed and cultivated for the purpose of being international talents.

Countermeasures should be taken from the perspectives of both culture and origin. With enterprise culture orientation and objective of familiarity with the local telecom operation market, China Mobile will cultivate a group of transnational talents with strong comprehensive capability and advantages of global coordination and cultural integration.

(V) Striving for market domination and actively participating in the international standard establishment of telecommunication industry

Improving its own operation mode and complying with regulations are far from enough for being a truly globalized company. China Mobile has to participate in the international standard establishment of telecommunication industry and grasp the industrial rules to transform the inferiority to superiority. From analog communication to digital communication, the telecommunication industry has witnessed different mainstream technology period from 1-4G. The telecommunication industry of China is dominated by the global giants with technical standards prior to 3G era. During 2G era, China has paid over 500 billion for patent fee. Entering 3G era, China owned the first independently completed international communication standard TD-SCDMA and China Mobile utilized the mode for networking and completed the 3G network construction. Who owns patents has the power to formulate rules and rules further determine the market operation mode. If Chinese technologies can be the international standards, then Chinese enterprises will own the natural advantages.

At present, China Mobile has shifted from active participants to platform builders and Eco-builders in the development of future-oriented 5G standards. During the 2016 Mobile World Congress in Barcelona, China Mobile's joint industry partners launched China Mobile's 5G joint The Innovation Center participates in 5G architecture design from candidate technology verification, standard formulation, industry chain construction and product maturity. In 2019, 5G officially entered the commercial stage. China Mobile should seize the opportunity to integrate into various industries, help industry transformation, invest in the R&D layout of network, application, terminal and other infrastructure, actively participate in national major special research and promote the transformation of R&D results. Improve the core competitiveness through the improvement of the independent innovation system, participate in the formulation of market...
rules, exert international influence and strengthen international dominance.

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A STUDY ON IMPACTS OF PACKAGING ON OTOP PRODUCTS AMONG TOURISTS IN PHITSANULOK

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ABSTRACT

OTOP product is one of the significant products that help to increase the income of local people. Tourists usually buy OTOP products as gifts for their families and friends. However, many of OTOP products are in simple styles of packaging which may not attract customers. The purposes of this study were to recognize the impacts of packaging on sale of OTOP products and understand whether packaging can create value on OTOP products. This quantitative study collected information from tourists in Wat Yai, Phitsanulok, Thailand. The respondents were customers who bought OTOP products. The results of this study showed that the respondents agreed that packaging color, packaging material, and packaging innovation affected their decision to buy OTOP products.

Keywords: OTOP, PACKAGING, SATISFACTION

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Introduction

The One Tambon One Product (OTOP) is a government policy of Thailand aiming to promote and commercialize local wisdom in a community through product development. OTOP development is seen as a way of enhancing local communities business by using the resources in community and knowledge to creating value through the local products and also build human resource in the local economy. Although OTOP producers may produce good quality of products, they have less knowledge of marketing strategies to sell the products. One of the marketing strategies that can help the producers to increase the sales is “Packaging.” According to Hine (1995), the packaging is referred to as the “silent salesman.” The packaging can be a representative of a company to connect to its customers. It can also affect customers' purchasing behavior. There is evidence shown that “majority of consumers are making their non-durable product buying decisions right at the store shelf.” (Underwood & Ozanne 1998, p. 208). When the consumers decide on purchasing at a store, the potential for packaging to communicate and influence choice will enhance. Therefore, the product managers and design firms have to create packages which can deliver positive aesthetic, function, symbolic, and information benefit to customers. Currently, there are various of the products in the same type. Each seller tries to complete with one another to be the only one in the market. They always develop their products such as quality, market strategies, and packaging to gain more profit. Therefore the package designs or materials of packaging should be one of important elements that would help the sellers to compete with competitors.

Objectives of the study

The objectives of this study were to recognize the impacts of packaging on sale of OTOP products and understand whether packaging can create value on OTOP products. By understanding these matters, the OTOP producers would be able to improve their products in order to increase their sales as well as the quality of the products.

Research Questions

1. What are the impacts of packaging on sale of OTOP products?
2. How can the packaging create value on the OTOP products?

Scope of the Study

This study aimed to understand the impacts of the packaging an important for customer decision purchasing on OTOP products. The population was OTOP’s buyers at Phitsanulok. The sampling size was selected from Thai and foreign tourists who were looking for a souvenir the OTOP product gift at Wat Phra Sri Rattana Mahathat (Wat Yai). The questionnaire survey was used to collect data in this study.

Review of Related Literature

OTOP: The OTOP project was established to help to promote products manufactured by rural people (Kalia et al., 2015). This model inspired from Japan as OVOP project. Under OTOP program, the government criticized the products made by people in the rural area. They gave a rate on OTOP by based on product quality, manufacturing technology, and income and employment generating capability of the product (Kalia et al., 2015). The main purposes of OTOP program are the development of efficient the local enterprise and use sufficient local resources.
**Marketing Mix:** According to Kolter and Armstrong (2014), "The marketing mix is the set of controllable, tactical marketing tools product, price, place, and promotion that the firm blends to produce the response it wants in the target market" (p.76). It also called 4Ps: Price, Place, Promotion, and Product. By combining all elements, organizations can gain more profit and increase the focus on sale promotions.

**Customer Satisfaction on Packaging:** Satisfaction is an emotional or cognitive response to a focus on expectations, product, and consumer experience, at a time after consumption, after the vote, or the accumulation of experience (Dharmesti & Nugroho 2012). Consumer satisfaction is the primary concern and requirement for competitiveness in today’s market. Every company competes to respond to consumer satisfaction at that point of purchasing, and it is becoming more intense. In addition, packaging design is about what will catch customers’ eyes and what will not. Marketers will be fulling aware of product packaging design that plays a critical role in a brand’s marketing strategy and effective influences shopping behavior at the point of purchasing.

**Customer Buying Behavior on Packaging:** Product packaging design is one of the most powerful tools in the marketing communications mix to delight consumers. Packaging makes higher importance relative to other communication tools because it is easy to compare with another brand (Underwood & Klein, 2002). When customers shop, they usually make choices between products within seconds, and the package often gives the customer’s first impression of the brand. When the customers see the packaging, they are considering buying, and the competition among the brands would occur by the differences in the packaging.

**Element and Functions of Packaging:** The fundamental functions of packaging include both logistical function and marketing function (Silayoi & Speece, 2007). The logistical function of packaging is essentially to protect the products while moving through the distribution channels. This could add packaging expense, but serve to relieve the incidence of damage, spoilage, or loss through pilferage or misplaced goods. On the other hand, the marketing function of packaging is also essential. The packaging gives an attractive method to deliver messages about a product characteristic to consumers. Most of the package’s shape, size, and color are important for the products (Rundh, 2009). According to Deliya and Parmar (2012), packaging is the container for a product covering the physical appearance of the container as well as the design, color, shape, labeling, and materials used.

**Packaging Color:** According to Shah, Ahmad, and Ahmad (2013), "Packaging color draws the attention of the consumers, the more the color attractive, the more consumer will like it. The different competitor uses a different color such as white or black use for power, blue for trust, red for energy, green for balance. Each color has different meaning according to the consumer perception" (p.37). When companies want to design the packaging color, they need to consider the meaning of each color. The color should match the category of each product.
Packaging Material: Package design and construction have an important role in determining the shelf life of a food product. When selecting the right packaging materials and technologies, it can help to keep product quality and freshness during distribution and storage. Traditionally, materials that have been used in food packaging include glass, metals (such as aluminum, foils and laminates, tinplate, and tin-free steel), paper and paperboards, and plastics (Marsh & Bugusu, 2007).

Packaging Font Style: Font is an essential element of packaging which attracts the customers’ attention. Companies that use the best font style may be successful in the market. The attractive package has innovative font style (Shah, Ahmad, & Ahmad 2013). Packaging information can create adversative results. It can lead to misleading or inexact information through small fronts and abundantly writing styles which are using on the package (Deliya et al., 2012).

Packaging Innovation: According to Shah, Ahmad, and Ahmad (2013), innovative packaging might add value to the product if it encounters a consumer need. For example, portion control, recyclability, tamper-proofing, child-proofing, easy-open, easy-store, easy-carry, and non-breakability. Manufacturers today try to have packaging that maintains the key equities of the brand and stand out on the retailer’s shelf, with the lower production costs. The customer can adopt a product based on its innovative packaging, which shows the relation between innovation of packaging and buying behavior.

Packaging Size and Shape: Silayoi and Speece (2007) stated that size and shape emerge as a precious dimension. One way in which consumers seem to use these things is as a simplifying visual heuristic to make volume judgments. In general, they perceive more elongated packages to be larger, even when they frequently purchase these packages and have experience using them. Disconfirmation of package size after consumption might not lead customers to revise their volume judging sufficiently in the long term, especially if the discrepancy is not very large. Size and shape can help the customers to decide to buy the products even they have been using those products many times.

The Role of the Packaging on OTOP Products: There are six types of OTOP products including food, beverage, clothes and garment, created art and souvenir, utensil and decorate ornament, and herb, not food and medicine. This study only focused on the OTOP food packaging. According to Marsh and Bugusu (2007), the functions of food packaging are preventing the product from outside and damage. It is similar to a container for stuff food which also provides the main detail about nutrition and ingredient to customers, including traceability and convenience. The purpose of the food packaging is to maintain food from the dust outside and provide high standard quality to consumers.

Protection: According to Marsh & Bugusu (2007), food packaging could be clarified as follows: Food packaging can retard product deterioration, retain the beneficial effects of processing, extend shelf-life, and maintain or increase the quality and safety of food. In doing so,
packaging provides protection from 3 major classes of external influences: chemical, biological, and physical (p. 39). There are many types of product’s material such as glass, metal, and plastic. Difference materials packaging can become a barrier and effect on the food when another factor influence stimulates them. Packaging maintains about biological of internal product. It can eliminate the bacteria and microorganism and prevent small bugs (insects) and rodent. In addition, packaging has many roles on the product, including be the access to the product, prevent smell transmission, keep stable of quality of product inside, and be the physical protection shelters food from all the damage such during distribution.

Marketing and Information. A package is on the product and expresses product functions before purchasing. Marsh & Bugusu (2007) stated that “distinctive or innovative packaging can boost sales in a competitive environment” (p.40). Increasing sell is not only developing the quality of the product, but the marketer should also consider other elements of the product, including packaging. Consequently, a company needs to bring innovation and new design to improve a package and try to differentiate from the competitors by enhancing the image or notable labeling. For instance, a larger label provides much information to customers. It includes ingredient, nutrition, net weight, instruction, and expired date. Additionally, the package is also identification of brand and price to customers.

Traceability: The Codex Alimentarius Commission (2004) defined traceability as “the ability to follow the movement of a food through specified stage(s) of production, processing, and distribution” (p.40). There are three objectives in traceability which are “improve supply management, to facilities trace-back for food safety and quality purpose, and to differentiate and markets food with subtle or undetectable quality attributes” (Marsh & Bugusu, 2007, p.40). This main purpose is to track their product while during shipping.

Convenience: Marsh & Bugusu (2007) discussed that “Convenience features such as ease of access, handling, and disposal; product visibility; reseal ability; and microwave ability greatly influence package innovation” (p.40). Currently, most people love a convenient way of living. The convenient package would attract consumer in this era and influence the package innovation. For example, the package that can be put in the microwave can help to reduce time for preparation. Those features can increase value and competitive advantages of the product.

Methodology
A quantitative method was used to conduct the study. The researchers gathered data using a questionnaire survey. The provided questionnaire, including information about the appealing packaging that affected the purchasing decision on OTOP Products. The population of this research, including the tourists who traveled to Phitsanulok and purchased OTOP products. The area of the survey was Wat Phra Sri Rattana Mahathat (Wat Yai) because it was a popular tourist attraction in Phitsanulok and there is a building market for selling OTOP products. According to Ministry of Tourism and Sport (2019), the statistics of tourists travel at Phitsanulok were 384,976
people both Thai and foreigners. The researchers calculated the sample size by using Taro Yamane’s formula. Regarding the results of Yamane formula, the sampling size of this study was 100 people.

**Data collection**

The data collection period was during May-June 2019. The researchers selected convenience sampling as it was specified in the non-probability sampling design method. It was a method by gathering the data from population members who were conveniently available to participate. The questionnaires were distributed to the selected respondents who bought products at the OTOP Building in Wat Yai. All respondents volunteered to do the questionnaire.

**Data analysis**

The researchers used a computer program to calculate the questionnaires in the elements of packaging and customer satisfaction. Research data would be calculated and present statistical data such as frequency, percentage, mean (\( \bar{x} \)), and standard deviation (S.D).

**Research Findings**

The first part of the findings shows the general information of the study as follows.

First, the experiences of buying OTOP products of the respondents. The research results show that all respondents have purchased or used OTOP products (100 percent). It shows that the customers came to a building store at Wat Yai to buy OTOP product.

Second, the first factor that the respondents considered when purchasing the products. The findings show that 44 percent of respondents considered purchasing the good quality of the products. The results also show that 24 percent of the respondents considered purchasing the products that worth their money (value of money). Moreover, 19 percent of the respondents considered purchasing the products with good packaging. There was only 10 percent of respondents who consider purchasing products because of the taste.

Third, The importance of the packaging to the respondents. The result shows that 93 percent of the respondents agreed that packaging was one of the important factors for them to purchase products. On the other hand, only 7 percent of the respondents did not agree that packaging was one of the essential factors for them to buy products.

Fourth, when asking if the customers feel worth to buy OTOP products, the findings show that 86 percent of the respondents agreed that packaging made them feel worth buying products. Meanwhile, only 14 percent of the respondents did not agree that packaging made them feel worth buying products.

Fifth, a beautiful package attracts respondents rapidly. The result shows that 95 percent of the respondents agreed that a beautiful package could attract them to buy the products. Only 5 percent did not agree that a beautiful package can attract them to buy the products.

The second part of the findings discuss the elements of packaging as follows.

**Packaging color affects decision when customers buy OTOP products.** The result shows that the respondents agreed to buy OTOP products that have interesting color (\( \bar{x} = 3.74 \), S.D. = 0.906). The respondents also agreed that they would buy OTOP products that a graphics color of packaging attracts their attention (\( \bar{x} = \ldots \))).
The respondents agreed that they would buy OTOP products because packaging contains their favorite color ($\bar{x} = 3.44$, S.D. = 0.914). The respondents also agreed that they would not buy OTOP products that have the black color of packaging ($\bar{x} = 2.96$, S.D. = 1.225). The result presents that the respondents agreed to buy OTOP products that meaningful color in their cultures ($\bar{x} = 3.29$, S.D. = 1.200).

Packaging material affects decision when customers buy OTOP products: The result shows that the respondents agreed to buy OTOP products with plastic material ($\bar{x} = 3.30$, S.D. = 1.159). The respondents also agreed that they would buy packaging material suits with products ($\bar{x} = 4.09$, S.D. = 0.767). The respondents agreed that they would buy OTOP products that non-breakability ($\bar{x} = 4.18$, S.D. = 0.978). The respondents also agreed that they would buy OTOP products that have a high quality of protection ($\bar{x} = 4.29$, S.D. = 0.820). Additionally, the result presents that the respondents agreed to buy OTOP products that use outstanding materials from other products ($\bar{x} = 3.73$, S.D. = 0.920).

Packaging Font Style affects decision when customers buy OTOP products: The result shows that the respondents agreed to buy OTOP products with a bigger font ($\bar{x} = 3.31$, S.D. = 0.907). The respondents also agreed that they would buy OTOP product that has a different font style from other brands ($\bar{x} = 3.27$, S.D. = 0.962). The respondents agreed that the words on the packaging affect their decisions to buy OTOP product ($\bar{x} = 3.88$, S.D. = 0.956). The respondents also agreed that they would buy OTOP products with Thai font style ($\bar{x} = 3.20$, S.D. = 1.128). Moreover, the result presents that the respondents agreed to buy OTOP products with Modern font style ($\bar{x} = 3.45$, S.D. = 1.019).

Packaging Innovation affects decision when customers buy OTOP products: The result shows that the respondents agreed to buy OTOP products that packaging can be recycled ($\bar{x} = 4.25$, S.D. = 0.809). The respondents also agreed they would buy OTOP products that easy to carry ($\bar{x} = 4.12$, S.D. = 0.782). The respondents agreed they would buy OTOP products that easy to open ($\bar{x} = 4.05$, S.D. = 0.829). The respondents agreed that they would buy OTOP products that can put in the microwave ($\bar{x} = 3.79$, S.D. = 0.957). In addition, the respondents also agreed they would buy OTOP products with the highest innovation ($\bar{x} = 3.71$, S.D. = 0.880).

Packaging Size and Shape affect decision when customers buy OTOP products: The result shows that the respondents agreed to buy OTOP products that have bigger size than other brands ($\bar{x} = 3.12$, S.D. = 0.832). The respondents also agreed that the shape of the packaging affects their purchasing decisions ($\bar{x} = 3.79$, S.D. = 0.988). The respondents agreed to buy OTOP products that have different size and shape from other products ($\bar{x} = 3.45$, S.D. = 0.936). The respondents also agreed that they would buy OTOP products with big size of products because it contained many volumes ($\bar{x} = 3.31$, S.D. = 0.3971). Furthermore, the result presents that the respondents agreed that they would not buy OTOP products that have a small size because it is less volume ($\bar{x} = 3.11$, S.D. = 1.014).

The third part of the findings discusses the role of packaging on OTOP products as follows.

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<thead>
<tr>
<th>Packaging Material</th>
<th>Mean</th>
<th>Standard Deviation</th>
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<th>Packaging Font Style</th>
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<tr>
<td>Different Font Style</td>
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<tr>
<td>Thai Font Style</td>
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<td>Modern Font Style</td>
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<td>Can be Put in Microwave</td>
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<td>Big Size of Products</td>
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<td>0.3971</td>
</tr>
<tr>
<td>Small Size of Products</td>
<td>3.11</td>
<td>1.014</td>
</tr>
</tbody>
</table>
Role of packaging on OTOP products: The result shows that the respondents agreed to buy OTOP products that can be traceable to check the original source ($\bar{x} = 4.45$, S.D. = 0.716). The respondents agreed that they would buy OTOP products that provide a lot of information on packaging ($\bar{x} = 4.39$, S.D. = 0.737). The respondents also agreed that they would buy OTOP products that have convenience packaging features ($\bar{x} = 4.36$, S.D. = 0.718). In addition, the respondents also agreed that they would not buy OTOP products that the packaging can protect the product inside ($\bar{x} = 4.34$ S.D. = 0.781).

Conclusion
This research studied on the Impact of Packaging on OTOP Products among Tourists in Phitsanulok. All of the participants have used to buy OTOP Products. The researchers provided the questionnaire as an instrument in collecting data and figure out the results of the Impact of Packaging on OTOP Products among Tourists in Phitsanulok. The purpose of this study was for sellers who produced OTOP products and would like to develop their OTOP packaging. Moreover, it could satisfy customers when they purchase OTOP products.

The packaging was the main factor to create value to products and increased sales. This study was quantitative research which was designed to investigate the impacts of packaging on OTOP products, perception of customers, and behaviors. The gotten data were analyzed by using a computer program. The study reviewed the literature regarding concept of background OTOP products, customer satisfaction on OTOP products and element, and function on the packaging. The obtained results after analyzing the data were presented as follows.

Most of the respondents considered a good quality, value of money and packaging respectively, when they purchased the OTOP products. They did not interest in good service from sellers. In addition, the researchers found that packaging became an important factor that can make respondents felt worth of purchasing OTOP products. A beautiful package could also attract customer attention rapidly.

Regarding this study, there were five elements of packaging involved with customer decision making when they would like to buy OTOP products. These five elements include packaging color, packaging material, packaging font style, packaging innovation, and packaging size and shape.

Packaging color: the researchers found that most of the respondents paid attention to interesting color on the packaging. Respondents would like to purchase OTOP product that had interesting color rather than had black color on the packaging. It was counted as a main element that influence customer decision.

Packaging material: the researchers found that a high quality of packaging influence on purchasing customers. High quality of packaging had the ability to protection stuff inside. Respondents considered strong material of packaging was suitable for using on OTOP products. On the other hand, they did not agree with using plastic material of OTOP products.

Packaging font style: this element hardly influenced the customer's decision. Respondents answered neutral agreed on packaging font style. Moreover, they agreed that wording on packaging affected...
their decision when they would like to buy OTOP products. According to chapter 2, packaging information should not mislead the customers. Therefore, the wording on a package was a thing that buyers consider.

**Packaging Innovation.** This was another element that affected customers' decision making when they would like to buy OTOP products. Respondents agreed on bringing innovation to packaging. They would like to buy OTOP products that packaging can be recycled.

**Packaging Size and Shape.** This element had less influence on customers' decision. Respondents did not pay attention much on packaging size and shape. However, if customers saw the different size and shape of packaging when they compared with other products, they could make decisions rapidly when purchasing OTOP product. The best role of packaging that respondents agreed on was if it can be traceable to help them check the original source of products when uncertainty situation occurs. This role can guarantee that products are safe for consumers. Another role that had many responses was providing a lot of product's information on packaging. Respondents were able to read and understand more about the product that they would like to purchase. Additionally, researchers found that respondents agreed on preventing products inside and providing convenience packaging features. They would like to purchase an OTOP product that contained in a strong packaging that can protect the shape and quality of product inside. Also packaging had many features such as put in microwave, easy to handle, or easy to be disposed.

**RQ 1: What are the impacts of packaging on sale of OTOP products?**

The results from the data show that the customers were satisfied and agreed on the OTOP product with packaging color in the highest impact of interesting color. Following by the packaging material, the customers had the strongest concerned about high quality of protection for OTOP product. Regarding the packaging innovation, most customers agreed that the packaging should be able to recycle. These factors were the most impacts of packaging on sale of OTOP products which can help to increase the sale for OTOP products. In addition, the producer should develop the products by improving element mentioned above to make more sell.

**RQ 2: How can the packaging create value on the OTOP products?**

The term of creating value refers to adding price on OTOP product through packaging and increasing sells. Packaging can increase value on OTOP products by developing and adding more functions to the packaging. Regarding this study, there are four roles of packaging which can create value on the OTOP products, such as protection, marketing and information, traceability, and convenience. The results show that the respondents agreed on every role of packaging on OTOP products. The strongest role of packaging that can help to create value on the OTOP products was when the customers could track the original source of OTOP products.

Another point was when seller provided a lot of information on packaging. The information can influence customer to make decision in buying OTOP products. Moreover, convenience feature on packaging, such as the product can be put in a microwave or easy to dispose, was one of the essential values of
OTOP products. If the sellers can develop and add necessary functions that customers need, it will lead to increased value on OTOP products. Customers will be willing to pay even a quite high price because they feel worth and satisfied with the products.

**Suggestion**

Regarding the results of this study, the OTOP producers should develop the elements of products under the term of packaging color to attract customers. Packaging material should be good quality and reduce using plastic and protects products from germs. Packaging innovation should be increased such as a suitable handing product and a product that can be recycled in order to save the environment. In terms of food products, packaging should be able to put in microwave for increased convenience to consumers. Moreover, the sellers should put a lot of effort and invest money in the design packaging to attract customers. Designing packaging is also a sensual experience, literally engaging customers through sight, touch, and sound but depends on the products inside. The producers should also consider languages using to describe products or providing information on packaging. By having different languages on the labels, the sellers can get more customers from other countries. The researchers also believe that if producers can develop packaging, it may lead to increased sales revenue and can access the international market.

The researchers would suggest the government in helping and developing OTOP product for sellers. The government should impel Thai wisdom to the international market. Sellers need some funds to conduct business. As a result, the government should provide some investment for OTOP sellers in each village. Moreover, the government should set up a meeting between producers and professional marketers to give advice and teach villagers how to create more profit on OTOP products. The government should emphasize developing the package, such as giving the scholarship to universities to help to improve the quality of the packaging (in the field of green packaging, innovative packaging, and recycled packaging).

For further research, the researchers would suggest future research to focus on innovation on the packaging. Future study should also focus on in-depth details about packaging and its effects on OTOP products since people in different generations might have different opinions. Furthermore, further research might focus on green-packaging which can save environment such any materials other than plastics that can be put in a microwave.

**References**


Global.


FACTORS INFLUENCING ONLINE PURCHASE INTENTION AMONG CONSUMERS IN PHNOM PENH, CAMBODIA

Chhat Bunsreyleng
Cambodian Commercial Bank, Phnom Penh, Cambodia

ABSTRACT

With the growing middle class, there would be opportunities to introduce new products, new services, and new marketplace platform such as e-commerce into Cambodia, especially Phnom Penh capital city that is the main city of highest technology. Also, there had been an increase of Internet subscribers in the kingdom. There is relevance between numbers of Internet subscribers and online shoppers since there is feasibility that they become online purchasers. These developments in growing affluent consumers plus the development in infrastructure offered the opportunity to study about factors that influence online purchase intention among consumers in Phnom Penh, Cambodia.

This study aims to study the level of online purchase intention and to examine the factors that influence online purchase intention among consumers in Phnom Penh, Cambodia. Four independent variables including perceived ease of use, perceived usefulness, perceived trust and perceived risk are selected from a literature review. Quantitative research based on cross sectional study is applied. Questionnaires are delivered to 400 people from 12 districts in Phnom Penh City of Cambodia. Descriptive statistic and inferential statistic such as multiple regression are employed to analyze data. The results show that there is a high level of online purchase intention among consumers in Phnom Penh, Cambodia. The findings illustrate that perceived usefulness has the most significant effect following by perceived risk and perceived trust while perceived ease of use has the least significant effect on online purchase intention.

Keywords: Perceived ease of use/ Perceived usefulness/ Perceived trust/ Perceived risk/ Online purchase intention/ Phnom Penh/ Cambodia

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Introduction

Electronic commerce is a modern trading route, which involves trading products and services using a technological innovation route called the World Wide Web or Internet. It is a cutting edge technology that embraces hardware, software, and network equipment by which each of the elements perform as an individual program providing individuals immediate connections. This modern technology is utilized globally so that everyone can get in touch with each other with both individual and trading issues, by just tapping a mouse at one’s convenience. Being hassle-free and affordable, electronic commerce has been increasing each year and is trending upward for shopping, information search, bills payment, news, climate reports, and online games (Yang & Lester, 2004; Chang, Cheung, & Lai, 2005). The retail e-commerce worldwide market had been growing rapidly for the last two decades with 23.3% growth rate in 2018 (Statista, 2019). The growing widespread availability of the e-commerce market has helped micro, small, and medium enterprises (MSMEs) to tap into the global supply chain and global market. This trend offered new and low-cost opportunities for MSMEs to economically launch their products and services domestically and globally, whereas it would have been impossible before.

Objectives of the study

1. To study the level of online purchase intention among consumers in Phnom Penh, Cambodia.
2. To examine the factors that influence online purchase intention among consumers in Phnom Penh, Cambodia.

Conceptual framework

<table>
<thead>
<tr>
<th>Independent Variable (IV)</th>
<th>Dependent Variable (DV)</th>
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<tbody>
<tr>
<td>Perceived ease of use</td>
<td>Online purchase intention among consumers in Phnom Penh City, Cambodia</td>
</tr>
<tr>
<td>Perceived usefulness</td>
<td></td>
</tr>
<tr>
<td>Perceived trust</td>
<td></td>
</tr>
<tr>
<td>Perceived risk</td>
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</table>

Figure 1 Conceptual framework
Hypotheses
1. Perceived ease of use has significant effect on online purchase intention of consumers in Phnom Penh City, Cambodia.
2. Perceived usefulness has significant effect on online purchase intention of consumers in Phnom Penh City, Cambodia.
3. Perceived trust has significant effect on online purchase intention of consumers in Phnom Penh City, Cambodia.
4. Perceived risk has significant effect on online purchase intention of consumers in Phnom Penh City, Cambodia.

Literature review
TAM is a conceptual framework selected by researchers to describe the innovation undertaking manner (Davis, 1989) and explain users' adoption degree on technological innovation (Bahmanziari, Pearson, & Crosby, 2003; Tong, 2010) and Rahman, Khan, and Islam (2013) used TAM to investigate technology adoption of users in online situation. In addition, Tsai, Cheng, and Chen (2011) applied it to an individual's willingness to buy via the Internet as well. Davis (1989) in the extent concentrated on two significant aspects influencing willingness to accept technological innovation in TAM model which consisted of perceived usefulness and perceived ease of use which have effect on consumers' desirability to use technology.

Online purchase intention
Online purchase intention was described as the trend that consumers are going to purchase following examining the commodity (Laroche, Kim, & Zhou, 1996; Laroche & Sadokierski, 1994; Salisbury, Pearson, Pearson, & Miller, 2001). In other words, online purchase intention is a circumstance when an individual is willing to buy goods or services online (Chenying, Hsu, & Lin, 2010; Pavlou & Fygenson, 2006). Furthermore, online purchase intention refers to whether a consumer tends to be involved in e-commerce transaction later (Chiu et al., 2005).

Factor influencing online purchase intention
Perceived ease of use
Davis (1989) mentioned that perceived ease of use is the level that individual perceives that accessing a specific system needs less effort. Similarly, Rogers (2010) defined perceived ease of use is an expression which appoint to the level to which technology is not difficult to use and process. He further explained that perceived ease of use is the extent customers are aware of up to date commodity or service greater than its alternatives. Likewise, Zeithaml, Parasaruman, and Malhotra (2002) said that the state when innovation is simple and understandable to use as perceived ease of use. Koufaris and Hampton (2004), PEOU was described as personal experience from users, which consider that requirement of acquiring and going through a specific website is the degree of effort.

Perceived usefulness
Perceived usefulness is when individuals think that using online platform will improve their buying activities. Koufaris and Hampton (2004) described perceived usefulness as the user's personal feasibility considering online shopping could make the process of buying products easier and more effective. When consumers have confidence that buying products from online sellers is beneficial, it's called perceived usefulness (Guritno & Siringoringo, 2013).

Perceived trust
Trust was recognized as a key point in the connection between purchaser

Tariq and Eddaoudi (2009) found that trust had significant influence on intention to complete an online purchase. Van, Ferdinand, Túquerres, and Regtien (2003) and Delafrooz, Paim, and Khatibi (2011) showed that trust was the dominant factor affecting intention to purchase products or services from Internet.

Perceived risk

Shoppers commonly sense a risk in most of their buying decision making process. At a greater distance, there were two aspects of perceived risk namely doubt and unfavorable result (Cox & Rich, 1964). Perceived risk was described as “consumers’ instinctive anticipation of experiencing a loss in following a favorable consequence” (Vannoort, Kerkhof, & Fennis, 2007; Zhou et al., 2007). Naiyi (2004) described perceived risk in consumers as a situation when consumers encountered unpredictability as the level of predicted disappearance causing from the buying and process of a specific item.

Research methodology

Population and sampling

The population of this research is the consumers who experience and have intention to shop online in Phnom Penh, Cambodia. There are 12 districts in Phnom Penh, so the researcher will distribute the questionnaires through these districts thoroughly. Because of the unknown population, the researcher determines the sample size by using the unknown population formula by Cochran (1977).

Since the population is unknown, the sample size can be acquired by calculating the minimum sample size required for accurateness in estimating proportions by considering as the following:

the standard normal deviation set at 95% confidence level ($z = 1.96$), a sample proportion of 50% ($p = 0.5$), a margin of error 5% ($e = 0.05$). The result is 384.16 people, so the researcher added more 15 people to get better result. Thus, the total sample size of this research is 400 people. Moreover, the researcher applies quota sampling method to select the respondents because it’s more practical and cost-effective. The researcher will distribute 34 to 35 questionnaires per district in Phnom Penh, Cambodia to gather 400 responses as the sample size. The researchers may go to some big shopping malls located in those districts and some household according to convenience and opportunity to collect the data.

Research instrument

Researcher used questionnaires to conduct this study. There are three parts in each questionnaire, namely part A, B and C. The questionnaires are translated to Khmer language by the researcher. Part A is about personal information of the respondents. Part B, the respondents are required to answer based on 5-point Likert scale, ranging from 5 “strongly agree” to 1 “strongly disagree” regarding to their perception towards online purchase intention. Part C is about the desirable online products or services that each respondent would like to purchase through online platform. The researcher requests advisor to consider the questionnaire from the review of relevant documents and related researches and take it to test the validity, and check the suitable wording and language using in order to revise
before questioning in the real data collection. Then, the researcher requests three experts in the field of Business Administration to authenticate the items in the questionnaires by using the Indexes of Objective Congruence (IOC) scores on a range from -1 to 1. After the researcher revises the questionnaires, the researcher carries out a pilot study with 30 people who live in Phnom Penh, Cambodia and are the sample group of the research in order to find out whether or not the individual scores from the instruments are consistent or reliable. The researcher uses Cronbach’s Alpha to certify reliability in order to validate the dependability. The Coefficient Cronbach’s Alpha should be equivalent to or greater than 0.7 to guarantee the reliability of the research instruments (Pallant, 2013, p. 104). After having tested, the researcher finds that the outcome of Coefficient Cronbach Alpha should be in between 0.7 and 0.9. The result that the researcher calculated for the Cronbach’s Alpha determined a coefficient of 0.973, so the internal consistency of the questionnaires was accepted.

**Results**

**Level of online purchase intention**

The average mean of online purchase intention is 3.44, which is high level. Therefore, it can be said that there is high level of intention to purchase online among consumers in Phnom Penh City, Cambodia.

Hypothesis 1. Perceived ease of use has significant effect on online purchase intention of consumers in Phnom Penh City, Cambodia. The p-value of perceived ease of use is 0.047, and the B value is 0.117. In other words, perceived ease of use has significant effect on online purchase intention. Comparing B value with other variables, the author finds that perceived ease of use has the least significant effect on online purchase intention.

Hypothesis 2. Perceived usefulness has significant effect on online purchase intention of consumers in Phnom Penh City, Cambodia. The p-value of perceived usefulness is less than 0.010, and the B value is 0.321. The p-value is less than 0.050. Otherwise speaking, perceived usefulness has significant effect on online purchase intention. Comparing B value with other variables, the author finds that perceived usefulness has the most significant effect on online purchase intention.

Hypothesis 3. Perceived trust has significant effect on online purchase intention of consumers in Phnom Penh City, Cambodia. The p-value of perceived trust is 0.013, and the B value is 0.179. In other words, perceived trust has significant effect on online purchase intention. Comparing B value with other variables, the author finds that perceived trust has the third most significant effect on online purchase intention.

Hypothesis 4. Perceived risk has significant effect on online purchase intention of consumers in Phnom Penh City, Cambodia. The p-value of perceived risk is less than 0.010, and the B value is 0.236. That is to say, perceived risk has significant effect on online purchase intention. Comparing B value with other variables, the author finds that perceived risk has the second most significant effect on online purchase intention.
Table 1: Summary of multiple regression analysis of perceived ease of use, perceived usefulness, perceived trust, perceived risk and online purchase intention

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ANOVA

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Coefficients

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<td>PU</td>
<td>0.321</td>
<td>0.057</td>
</tr>
<tr>
<td></td>
<td>PT</td>
<td>0.179</td>
<td>0.072</td>
</tr>
<tr>
<td></td>
<td>PR</td>
<td>0.236</td>
<td>0.060</td>
</tr>
</tbody>
</table>

Note a. Predictors: (Constant), PEOU, PU, PT, PR
b. Dependent Variable: OPI

Equation 1 (Unstandardized coefficients):
Online Purchase Intention = 0.645 + 0.117 Perceived ease of use + 0.321 Perceived usefulness + 0.179 Perceived trust + 0.236 Perceived risk

Equation 2 (Standardized coefficients):
Online Purchase Intention = 0.109 Perceived Ease of Use + 0.291 Perceived usefulness + 0.157 Perceived Trust + 0.235 Perceived Risk

Conclusion

There are five variables in this research study: 1) perceived ease of use, 2) perceived usefulness, 3) perceived trust, 4) perceived risk and 5) online purchase intention.

Demographic data
There are 400 respondents for this research study. 227 of them are female, and 173 of them are male. 264 of them are between 21-30 years old. 11 of them are less than or is equivalent to 20 years old. 20 of them are between 31-40 years old, and 5 of them are more than 40 years. Most of them are studying or have finished their
bachelor’s degree. Some of them have master’s degree or higher. Others are in college and high school or a lower level. The occupations of the respondents are students, private company officers, business owners, government officers, freelance and one housewife. 176 respondents earn less than USD300 per month. 132 of them earn between USD300-USD599 monthly. 58 respondents earn between USD600-USD899 per month. 25 of them earn USD1,200 or more per month, and 9 respondents earn between USD900-USD1,199 monthly. 128 respondents spend between 2-4 hours browsing Internet daily. 77 of them browse Internet between 4-6 hours per day. 74 respondents spend more than 8 hours browsing Internet daily. 70 respondents browse Internet between 6-8 hours per day, while only 51 respondents spend less than 2 hours browsing Internet daily. 316 respondents have bought online before while 84 respondents have never bought online. Most of respondents prefer to purchase clothes through online platform followed by bags and shoes, then foods and snacks.

Discussion

The research findings are discussed based on research objectives of the investigation as following:

Objective 1: To study the level of online purchase intention among consumers in Phnom Penh, Cambodia.

The average mean of online purchase intention is 3.44, which is high level. In short, there is high level of online purchase intention among consumers in Phnom Penh, Cambodia.

Objective 2: To examine the factors that influence online purchase intention among consumers in Phnom Penh, Cambodia.

Based on the multiple regression analysis, the author found that perceived trust has significant effect on online purchase intention. It has the third most significant effect on online purchase intention if comparing to other variables of this study. Perceived trust includes trustworthy, keeping promises, keeping commitments, keeping customers’ interests in mind, integrity, the infrastructure of the web site of online retailer is dependable, the online store’s behavior meets customer’s expectations, sincere and real information. The studies of F. Van der Heijden et al. (2003) and Delafrooz et al. (2011) appeared that trust was the dominant factor affecting intention to purchase products or services from Internet. In short, perceived ease of use, perceived usefulness, perceived trust and perceived risk have significant effect on online purchase intention. Perceived usefulness has the most significant effect following by perceived risk and perceived trust while perceived ease of use has the least significant effect on online purchase intention.

Recommendations

The researcher has some recommendations for online platform, online sellers and government to take into consideration. Even though, there were 4 factors that significantly influence online purchase intention, including perceived ease of use, perceived usefulness, perceived trust and perceived risk. However, there were different stakeholders responsible in promoting these factors to help consumers in Phnom Penh to be more interested and committed to online purchase as the following.
For online platforms

The online platforms had vested interests in motivating consumers to be more engaged and committed, therefore perceived ease of use and risk management should be their important responsibilities. Thus, we can provide following suggestion to online platform operators.

Perceived ease of use should be important when it comes to the use of online platform. The online platform should be easy to navigate to search or process the transactions. Ordering and payment process should be required short time and less effort to complete for buyers. For example, purchasers can use their membership to process the next order or payment after their first buying.

Online platform should be safe and reliable in order to manage the risks which related to the security and safety of users’ information and privacy. In addition, online site should be designed in an attractive and effective way to draw user’s attention when purchasing online products. By doing this, it also increases trust of online transactions as well.

For online sellers

Besides online platforms, online sellers also involve in attracting consumers to doing online shopping. Thus, perceived usefulness, perceived trust and perceived risk should be their major responsibilities.

Perceived usefulness has the most significant effect on online purchase intention for this research. Therefore, the online sellers should take this into consideration and improve their performance to meet the online purchasers’ expectation. They should sell the products which meet the customers’ lifestyle, need and expectation. Online shoppers expect to discover new products from the online shops. The related information of online products should be displayed clearly.

Moreover, perceived trust and perceived risk are also the significant factors that the online sellers should pay high attention to satisfy their customers. There should be stable payment system to ensure customers’ privacy and information. Review from prior purchase from customers is also part of trust that new customers consider buying from the online sellers. Packaging and shipping should be reliable to guarantee the safety of the products for customers, and return policy should be mentioned obviously for each online transaction. Lastly, online merchants should always keep the customers’ interests or feedbacks in mind and improve to meet and satisfy customers’ expectation.

For government

Government also is involved in e-commerce business in Phnom Penh, Cambodia. They should help by reducing the risk and increase trust for online shopping transactions since it is new and popular for consumers. They should help online transaction more secure and have proper policy for any online fraud in e-commerce business. Right now the online market is relatively unregulated. More than this, government can help by increasing Internet penetration which means more of the population can access the Internet faster and easier than before. In addition, the cost of using the Internet should be lower to make it more competitive and affordable to a wider population. Besides, the government should design and draft an Internet policy to boost the scope and improvement of e-commerce and online business in Cambodia.
Lastly, there should be applications who work as e-Wallet payment method where online shoppers can store their funds to be used for online purchasing such as Alipay. It could help smooth the online transaction process and make it more efficient for online merchants as well as online buyers.

**Recommendations for future research**

The researcher would recommend the following as future research:

1. Future research should employ mix method which includes quantitative and qualitative method in order to gain deeper understanding and richer details on perception, attitude and online purchasing intention in Phnom Penh city context.
2. The results of this research are based on the perception of consumers in Phnom Penh. It would be more informational if the next researchers design their research to study the perception of online sellers or website designers about their strategies to compete in the market.
3. This study focused on consumers in Phnom Penh City, so the next research should expand the study to consumers in other provinces or in the whole Cambodia in order to gain more understanding about their intention to shop online as the bigger picture business.

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EMPLEYEOES’ PERCEPTION ON DETERMINANTS THAT AFFECTING ORGANISATIONAL PERFORMANCE AMONG MANUFACTURING FIRMS IN MALAYSIA

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ABSTRACT

The concept of organisational performance has received increasing attention and interest in entrepreneurship and business management due to the rising competition. The overall global economic performance has declined due to US-China trade war that is casting a shadow over the global economy; Brexit, which leave Germany on edge of recession; protests in Hong Kong in response to new extradition law that has caused major economic slowdowns and in the many major cities as well Covid-19 pandemic which causes many firms to suffer disruption in operation and supply chain due to locking down of more and more countries that in turn affected many businesses in facing huge losses and rise in the unemployment rate. According to Kose and Sugawara (2020), since World War II, the Covid-19 pandemic is expected to result in the worst global recession. TheStar (2020a) also revealed that the small and medium enterprises (SMEs) in Malaysia are severely hit by the Covid-19 outbreak. SMEs in Malaysia may lay off unnecessary staff and reduce salaries of up to 30% to ensure continuous survival in the market (The Edge Markets, 2020). For the first 14 days of Movement Control Order (MCO) which refer to a preventive measure implemented by the Malaysian government, manufacturing sector in Malaysia is forecasted to suffer a loss of production as well as exports that amounted to RM64.6bil and RM32bil respectively (TheStar, 2020b). Hence, this study tends to examine the employees’ perception of determinants affecting organisational performance among manufacturing firms in Malaysia. Five competitive priorities that served as the independent variables are being adapted and adopted in this research to identify the organisational performance among manufacturing firms in Malaysia are cost, quality, delivery, flexibility and innovation. The quantitative approach is being conducted to address the objectives of the study. A total of 202 respondents have participated and responded in the survey questionnaire in which the data collected were being analysed through utilising Statistical Package for Social Sciences (SPSS). Based on the findings and analysis, this study demonstrated that four of the independent variables, i.e., cost, quality, flexibility and innovation have a positive and significant relationship in affecting the organisational performance. However, delivery priority has shown a negative relationship but significant impact on firm performance. Therefore, this study is believed to provide insight into the manufacturing sector to enhance their performance through internal perspectives of organisations. Lastly, the researcher also suggested a few improvements for further study based on the research findings.

Keywords: Organisational Performance, Competitive Priorities, Cost, Delivery, Quality, Flexibility, Innovation

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Introduction

In the era of globalisation, the concept of organisational performance has received increasing attention and interest in entrepreneurship and business management due to the rising competition as well as declining of global economic performance in the market. Globalisation has caused large imbalances in wealth and income in many countries due to the benefits of free trade that are being shared equally. Workers in many advanced countries have either experienced a fall in real wages or lost their jobs. Business, as well as investors’ confidence, has suffered as no one manages to predict any future uncertainties due to globalisation risk and these may further undermine the world’s economy (Andrew, 2019).

According to Department of Statistics Malaysia (2019), the manufacturing sector remains as the anchor and served as the main driver for the growth of Malaysia’s economy for the third quarter of 2019 and has reported a growth of 3.6 percent against 4.3 percent in the previous quarter of 2019 in which the performance was supported by 3.1 percent from electrical, electronic and optical products, 2.9 percent from chemical, rubber, petroleum and plastic products as well as 6.1 percent from the repair products, transport equipment and other manufacturing products. Moreover, there were a total of 1,086,908 employees who have involved in the manufacturing industry in October 2019, showing a rise of 1.0 per cent or 10,531 workers as compared to 1,076,377 employees in October 2018.

In 1984, Hayes and Wheelwright have introduced the word ‘competitive priorities’ where it is referred to the dimensions or strategic preferences along whereby an organisation determined to compete in the targeted market. Competitive priorities are also defined as a compatible set of goals for manufacturing firms to achieve competitive advantage. Even though the relationship between competitive priorities and organisational performance has been studied previously by several researchers (Foo & Friedman, 1992; Turkmen, 2016), this study is still inadequate for Malaysia’s manufacturing firms where most of the researches concerning Malaysian manufacturing firms were related to the impact of organisational culture (Lee, Chong & Ramayah, 2018) on firm performance. Despite several priorities identified and evaluated in the manufacturing strategy literature, competitive priorities in terms of cost, delivery, quality and flexibility are extensively accepted (Kathuria, 2000).

Later, Leong, Snyder and Ward (1990) stated the fifth competitive priority, which is innovative. Many researchers have focused on competitive priorities, which derive from cost, quality, delivery and flexibility (Kavitha, Karthikeyan & Devi, 2013), and have less coverage on the innovation factor.

According to Ward, McCreery, Ritzman and Sharma (2007), identifying and examining manufacturers’ competitive priorities has served as a key aspect in strategy research of manufacturing. Although extensive studies in terms of competitive priorities have been carried on in various countries, Naqshbandi and Idris (2012) claimed that the competitive priorities in the developing countries were seldom been evaluated and studied.

According to Almatrooshi, Singh and Farouk (2016), the performance of an organisation also depends on its employees, who are the key part of the firm to work toward attaining the organisational objective. The employees’ attitude has served as one of the main factors that determine the organisational performance in the long run as the desired employees’ attitude and behaviour
that is needed by the organisation could be obtained for a firm to achieve its aim, mission and vision (Saudi, Anwar & Sinaga. 2018). Thus, the study on employees’ perception on determinants that affecting the organisational performance of manufacturing firm is crucial for businesses in Malaysia for a firm to gain success in achieving or meeting its strategic goals while facing the global economic downturn.

**Objectives of the Study**
1. To examine the relationship between employees’ perception on cost and organizational performance among manufacturing firms in Malaysia.
2. To examine the relationship between employees’ perception on quality and organisational performance among manufacturing firms in Malaysia.
3. To examine the relationship between employees’ perception on delivery and organisational performance among manufacturing firms in Malaysia.
4. To examine the relationship between employees’ perception on flexibility and organisational performance among manufacturing firms in Malaysia.
5. To examine the relationship between employees’ perception on innovation and organisational performance among manufacturing firms in Malaysia.

**Conceptual Framework**

![Conceptual Framework Diagram]

**Table 1: Source for Independent and Dependent Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variables</td>
<td>Avella and Vazquez-Bustelo (2010); Chavez, Yu, Jacobs and Feng (2017)</td>
</tr>
<tr>
<td>Cost</td>
<td>Avella and Vazquez-Bustelo (2010); Chavez, Yu, Jacobs and Feng (2017)</td>
</tr>
<tr>
<td>Quality</td>
<td>Avella and Vazquez-Bustelo (2010); Chavez et al. (2017); Peng, Schroeder and Shah (2011)</td>
</tr>
<tr>
<td>Delivery</td>
<td>Avella and Vazquez-Bustelo (2010); Chavez et al. (2017); Peng et al. (2011)</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Avella and Vazquez-Bustelo (2010); Chavez et al. (2017); Peng et al. (2011)</td>
</tr>
<tr>
<td>Innovation</td>
<td>Avella and Vazquez-Bustelo (2010); Chavez et al. (2017); Peng et al. (2011)</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Avella and Vazquez-Bustelo (2010); Chavez et al. (2017); Peng et al. (2011)</td>
</tr>
<tr>
<td>Innovation</td>
<td>Distanont and Khongmalai (2018); Huang, Wu, Lu and Lin (2015)</td>
</tr>
</tbody>
</table>

### Hypotheses

**H1:** There is a significant relationship between employees' perception on cost and organisational performance.

**H2:** There is a significant relationship between employees' perception on quality and organisational performance.

**H3:** There is a significant relationship between employees' perception on delivery and organisational performance.

**H4:** There is a significant relationship between employees' perception on flexibility and organisational performance.

**H5:** There is a significant relationship between employees' perception on innovation and organisational performance.

There is no universal definition of organisational performance. According to Yusuf et al. (2007), a firm's financial performance can be analysed via profit and sales. Sadikoglu and Olcay (2014) also mentioned that the increase in the number of successful new products or services within a firm serves as one of the aspects of the performance of a firm. Peljhan and Marc (2016) claimed that the performance of a firm is mainly based on four perspectives of the balanced scorecard, i.e., employee, customer, operational as well as financial perspectives, in which the operational perspective has been focused in this research. The operational perspective refers to the rise in the number of new products being introduced in the firm.

### Literature Review

#### Review of Organisational Performance

Continuous and on-going performance of the firm has been focused by any organisation, as an organisation can grow and progress only if it achieves high organisational performance. Organisational performance is a vital term in the research of management where it consists of financial as well as non-financial aspects that provide information for firms to attain organisational purposes (Kaplan & Norton, 1992). According to Ho (2008), organisational performance refers to the measurement of achieving a certain level of desired objectives.

#### Determinants that Affecting Organisational Performance

**Cost**

Cost refers to the ability of an organisation to distribute and produce services or products at a lower cost as compared to competitors (Dangayach & Deshmukh, 2001). Chavez et al. (2017) mentioned that cost has served as one of the core manufacturing capability in affecting the performance of the organisation. In this research, low manufacturing cost, low inventory cost and low price as compared to competitors and produces products with low overhead costs have been identified as the competitive capabilities related to cost (Chavez et al., 2017; Avella & Vazquez-Bustelo, 2010). Lowering manufacturing
costs are often one of the production strategies of many firms and industries. Businesses have relocated to areas in which they can produce their products cheaper by focusing on the cost of the materials and lowering labour costs (Radu, 2019). Low manufacturing cost refers to the firm’s capability to transform inputs into outputs at a minimum cost. Low inventory cost is defined as the firm’s ability to store inventory at a minimum level. Low price is being regarded as the firm’s capability to sell products or provide services at a price lower than the competition.

**Quality**

According to Lau Antonio, Yam and Tang (2007), firms will attain quality priorities when its products meet specifications of manufacturing. The aspects of quality in terms of service after-sale and technical assistance may have an impact on the number of products sold; hence quality serves as a crucial perspective of sales and profitability (Lau Antonio et al., 2007). Swink, Narasimhan and Kim (2005) mentioned that quality may positively impact the financial performance of a firm and customer satisfaction. Furthermore, Case (2002) stated that quality management is important for a company as it requires companies to satisfy expectations of customer, meeting and achieving global quality standards. For instance, The International Organization for Standardization (ISO) 9001 has helped companies to ensure that their customers receiving compatible and high-quality products and services that in turn lead to business benefits. Through offering high-performance products, providing reliable products and manufacture with consistent low-defect rates, a firm can achieve its competitive manufacturing priorities and purpose (Avella and Vazquez-Bustelo, 2010). Moreover, according to Chavez et al. (2017), aspects such as offering high performance and quality products, offering highly reliable products that achieve customer requirements, manufactures quality products with low faulty can have a crucial effect on sales and profitability of a firm. Peng et al. (2011) stated that operational performance is also being measured through the quality of products.

**Delivery**

According to Peng et al. (2011), delivery is one of the competitive capabilities, which developed through competitive priorities that also refer to a strategic emphasis. If the firm manages to respond to the needs and requirements of customers in the shortest time as compared to its competitors, the organisation is expected to receive a larger market share and charging higher prices for its services in which the speed delivery might be measured as a time taken between receipt of customer demand and meeting the request on time (Avella & Vazquez-Bustelo, 2010). Delivery includes the aspects of dependability as well as speed in which dependability meaning doing things on time and the firm’s capability to deliver right orders on stated due dates (Lau Antonio et al., 2007) whereas speed is the ability of firm in delivering goods or services faster as compared to the competitors, which is important for firms in winning more orders (Ward et al., 2007). In terms of delivery, previous studies have clarified that delivery speed and dependability have a positive impact with financial performance and customer satisfaction (Lau Antonio et al., 2007; Swink et al., 2007). Delivery can be measured through the speed of delivery, on-time delivery, as well as short cycle time of manufacturing, which is also supported by the study of Chavez et al.
and this, may result in operational performance of an organisation.

**Flexibility**

Peng et al. (2011) claimed that the capability to quickly change production volume and the capability of a firm to alter product mix refer to flexibility priority of a firm. A great degree of operations flexibility may result in improvement of capability to deliver on time by the firm. Furthermore, operational performance can also be measured through flexibility priority. According to Chavez et al. (2017), flexibility refers to the ability of a firm to accommodate product changes the capability to offer broad product specifications. Avella and Vazquez-Bustelo (2010) mentioned that flexibility could be used to measure production competence. The ability of a firm to offer a broad product line and to offer customised product features serves as the flexibility of a firm to achieve competitive manufacturing purposes. This research will discuss different categories of flexibility such as volume, product mix, changeover and modification flexibility (Gerwin, 1993). Flexibility refers to an organisation’s capability to respond to product innovation and special requirements to attain a variety of production outcomes (Chan, 2003). In addition to accommodating product changes, flexibility also inclusive of the capability of a firm to counter disruptions such as delay of the arrival time of raw materials and machine breakdowns (Chan, 2003).

**Innovation**

According to Distanont and Khongmalai (2018), innovation is crucial to improve the business as it generates competitive advantages, therefore helping business to realise sustainable economic development. For internal factors, regardless of whether the employees are from the same department, new ideas, as well as innovation, derived from the transfer of knowledge among employees in the firm. Besides, innovation and new ideas which issue externally are also important. However, in this study, the investigation will be focusing on discussing internal factors that affect the organisational performance of the manufacturing firm. Huang et al. (2015) mentioned that a firm that has a better facility for innovation help the firm in the innovation competition against competitors, thus improving organisational performance. The study of Huang et al. (2015) also adopts the theory of RBV to analyse the effect of innovation on organisational performance. The aspects such as applying knowledge of innovation gained from experience by team members and to solve problems using the knowledge, sharing of experience or innovation know-how from work among team members, providing innovation methodologies for other team members refer to the measurements of innovation.

**Resource-Based View Theory (RBV)**

The Resource-Based View theory (RBV) has become an extremely influential framework in the strategic management literature. RBV states that competitive advantage may be gained and sustained from the resources of internal organisation (Eisenhardt & Martin, 2000). The theory also argues that the performance of an organisation depends strongly on its resources or capabilities located within the firm (Chavez et al., 2017). According to Barney (1991), an organisation referred to a group of human resources, physical and organisational resources based on RBV. Resources which are valuable, rare,
imperfectly imitable and imperfectly substitutable serve as the major source of sustainable competitive advantage to sustain the high performance of the organisation. Thus, a resource has to fulfil valuable, rare, imperfectly imitable and non-substitutability (VRIN) criteria to offer sustainable performance and competitive advantage. Barney (1991) emphasised that valuable resource must enable and lead the firms to achieve financial values such as high sales, high margins and low costs. Resources are also valuable when they help firms to be able to conceive and carry out their strategies, which enhance their efficiency and effectiveness. RBV has enabled managers to realise that competencies are being perceived as the firms’ most crucial asset and to recognise how the assets to be utilised for improvement of organisational performance.

**Methodology**

For this study, descriptive research is being adopted where developmental design, correlational, observational studies, as well as survey research, are being carried out. The quantitative approach is being conducted to address the objectives of the study.

The targeted population of this investigation is 200 employees from selected manufacturers in Malaysia which employees held a position of operator, non-executive, engineer, analyst or specialist and above. According to Lyons (2015), 200 to 300 respondents for sample sizes are acceptable in terms of reliability. Moreover, according to the Department of Statistics Malaysia (2020), the total number of employees engaged in the manufacturing sector is 2,280,951 persons. The manufacturing sector is a crucial part of Malaysia’s industrialisation efforts, which attract not only local but also foreign investments.

Convenience sampling which is considered as a non-probability sampling technique through choosing the respondents depending on the respondents’ voluntary and availability will be used in this research as the targeted population is very broad and this may also result in cost-effectiveness. Respondents need to meet the requirement of being employees from the manufacturing industry.

**Data Collection**

The gathering of primary data through self-administered questionnaires is employed. Data collected through questionnaire distributed via Google Forms was evaluated using the Statistical Package for Social Science (SPSS). The questionnaire will be classified depending on the variables distinguished that affected the organisational performance among manufacturing firms in Malaysia.

**Data Analysis**

Data analysis will be conducted via SPSS software upon gathering the questionnaires from respondents. Reliability analysis has been performed to examine the degree to which measures are consistent and free from inaccuracy. Cronbach’s alpha has been applied to measures the reliability of data. Skewness and Kurtosis will also be analysed through evaluating the gathered and collected data by comparing the dependent variable with the independent variables to check whether the data meet the normality assumptions. In this study, multiple linear regression (MLR) is utilised to assess the relationship between the dependent variable and one or more independent variables as to whether their relationship is a positive or negative correlation.
Results

Demographic Profile and Company Details of Respondents

In this study, the researcher has collected 202 valid respondents from manufacturing firms in Malaysia. In terms of job position, there is 153% of Non-Executive or Operator; 233% of Engineer or Analyst or Specialist; 411% of Executive or Assistant Manager; 158% of Manager or Head of Department and 45% of General Manager or Director from the respondents. Out of 202 respondents, 35% is engaging in firms that have less than 5 full-time employees; 386% is engaging in firms that own 5-74 full-time employees; 262% in firms that have 75-199 full-time employees and 317% or 64 respondents are engaging in firms that own 200 and above full-time employees.

In terms of the type of manufacturing industry that the respondents engage, most of the respondents are engaging in the food and beverage industry, where out of 202 respondents, 233% or 47 respondents are collected in such industry. On the other hand, only 10% or 2 respondents are working in the cooling tower industry, which presented the least number among the respondents.

Reliability Analysis

The Cronbach’s Alpha value presented in Table 2 for organisational performance among manufacturing firms (Y) is 0.866; cost (X1) is 0.868; quality (X2) is 0.928; delivery (X3) is 0.914; flexibility (X4) is 0.883 and innovation (X5) is 0.932. The Cronbach’s alpha values of the variables are above 0.70, suggesting an acceptable internal consistency (Adadan & Savasci, 2011). Table 2 also states that the highest Cronbach’s alpha value is 0.932 for the variable of innovation whereas the lowest Cronbach’s alpha value is 0.868 for cost. Since the result has shown all of the constructs have the value of Cronbach’s Alpha that is greater than 0.70, the researcher claimed that appropriate measurement is established.

Table 2: Reliability Statistics and Descriptive Statistics on the Constructs

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y: Organisational Performance among manufacturing firms</td>
<td>3.455</td>
<td>0.787</td>
<td>0.866</td>
</tr>
<tr>
<td>X1: Cost</td>
<td>3.417</td>
<td>0.845</td>
<td>0.868</td>
</tr>
<tr>
<td>X2: Quality</td>
<td>3.828</td>
<td>0.812</td>
<td>0.928</td>
</tr>
<tr>
<td>X3: Delivery</td>
<td>3.880</td>
<td>0.771</td>
<td>0.914</td>
</tr>
<tr>
<td>X4: Flexibility</td>
<td>3.606</td>
<td>0.840</td>
<td>0.883</td>
</tr>
<tr>
<td>X5: Innovation</td>
<td>3.783</td>
<td>0.811</td>
<td>0.932</td>
</tr>
</tbody>
</table>

Relationship between cost and organizational performance

According to Table 3 and 4, with every one per cent increase in total cost (X1) will have a positive relationship effect and lead to an increase in the organisational performance by 0.380 per cent averagely with statistical significance at level 0.05, with other variables remain
constant. The findings exhibited in Table 3 also shows that there is a significant relationship between employees’ perception on cost and organisational performance as the p-value is 0.000 that is less than the alpha level of 0.05. Hence, cost possesses a critical positive relationship in influencing the performance of organisations as perceived by employees in the organisations. Due to the aspect that 61.4% of respondents, i.e., 41.1% of Executive or Assistant Manager; 15.8% of Manager or Head of Department and 4.5% of General Manager or Director in this study are holding job position of Executive or Assistant Manager and above in which this group of respondents are also mostly having 6 years and above experience in the manufacturing industry, therefore they have more experience and knowledge in manufacturing field and they understand that a pricing strategy is normally based on cost. In this case, they will stand on customers’ position that perceives prices of the products or services are crucial for them in making a purchasing decision.

Relationship between quality and organisational performance

Similarly, as per Table 3 and 4, a one per cent increase in the total quality (X2), has a positive relationship effect and lead to an in the organisational performance by 0.327 on average with statistical significance at the alpha level of 0.05, with other variables remain constant. As presented in Table 3, the p-value is 0.000, which is less than alpha level of 0.05, thus, employees’ perception on quality shows a significant positive relationship in affecting organisational performance. In this research, out of 202 respondents, 144 or 71.3% of the respondents stated their organisations own ISO certification, in which ISO can assist the company to deliver quality goods that meet customers’ specifications to the customers, thus most of the respondents will perceive quality as a determinant in affecting the performance of their organisations.

Relationship between delivery and organisational performance

The explanatory variable of delivery (X3) shows a negative relationship impact on organisational performance as presented in Table 3 and 4. A one percent increase in delivery will result in a decrease in organisational performance by 0.282. Employees’ perception of delivery has a significant but negative relationship in affecting the performance of organisations. Wood, Gilbreath, Rutherford and O’Boyle (2014) also claimed that delivery is significantly but negatively associated with organisational performance. This may be due to the current economic situation which is very uncertain, where the respondents will be focusing more on other factors rather than delivery which will have more impact on the organisational performance in this study.

Relationship between flexibility and organisational performance

In terms of flexibility, according to Table 3 and 4, a one per cent increase in total flexibility (X4) will also have a positive relationship effect on an increase in the organisational performance by 0.262 percent averagely with statistical significance at alpha level 0.05 and other variables remain constant. Flexibility has possessed a significant and positive relationship in affecting the performance of organisations as perceived by employees in the organisations. According to Swamidass and Newell (1987),
flexibility allows a firm to manage environmental uncertainty. Therefore, respondents may perceive flexibility to own a significant impact on their firm's performance when the environment is uncertain.

*Relationship between innovation and organizational performance*

Innovation as well shows a significant and positive relationship with organisational performance as per Table 3 and 4 where a one per cent increase in the total innovation (X5), has a positive effect and lead to an increase in the organisational performance by 0.155 on average with statistical significance at the alpha level of 0.05, with other variables remain constant. In this research, out of 202 respondents, there are 61.4% of respondents, i.e., 41.1% of Executive or Assistant Manager; 15.8% of Manager or Head of Department and 4.5% of General Manager or Director is holding job position of Executive or Assistant Manager and above in which this group of respondents are also mostly having 6 years and above experience in the manufacturing industry, hence, firms are encouraged and important to pursue innovation due to the current environment which is very uncertain and for firms to remain competitive.

*Table 3: Coefficients*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
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a. Dependent Variable: Organisational_Performance
Table 4. Correlation

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<th>Total Quality</th>
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<th>Total Flexibility</th>
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<td>.648</td>
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</table>

Discussion

It can be concluded that there is a significant relationship between employees' perception on cost and organisational performance. Similarly to this research, Chavez et al. (2017) stated that cost possessed a positive and significant relationship with an organisation’s financial performance. The ability of organisations in managing and controlling costs in their operations and supply chain serves as a resource in the RBV aspect and results in a competitive advantage for the company. According to Jitpaiboon, Gu and Truong (2016), cost priority shows a stronger impact on organisational performance as compared to other priorities. Offering products or services with low cost is perceived as an important aspect to gain customer satisfaction. A firm that has focused on effectively managed its term cost such as low cost in operation, continuous improvement, low-quality cost and value-added cost to develop effective and efficient processes can utilise available resources to offer the lowest price to the consumers (Askar & Mortagy, 2007). As such, cost served as one of the crucial resources in the enhancement of organisational during recession and economy uncertainty, revenues decrease rapidly and hence, performance.

By referring to the output of the result, there is a significant relationship between employees’ perception on quality and organisational performance. A similar study outcome has been discussed by Avella and Va’quez-Bustelo (2010), which presented in their study that shown quality positively and significantly affect organizational performance. Through offering products and services with high quality, business performance such as sales turnover will be positively and significantly affected. Firms which owns ISO tends to be able to meet customers’ quality standard. By offering high-performance products, providing reliable products and manufacture with consistent
low-defect rates, a firm can achieve its competitive manufacturing priorities and purpose (Avella and Vazquez-Bustelo, 2010).

According to the testing output of study, employees' perception on delivery has shown a significant but negative relationship in affecting the performance of organisations. Similarly, Wood et al. (2014) demonstrated in their study that delivery is significantly but negatively associated with organisational performance. They stated that companies might focus on efforts in reducing costs in the short term. Other priorities such as delivery are not the main focus for the organisation when a firm is facing difficulty due to environmental uncertainty. Emphasising on other priorities may serve to worsen the profitability of the organisation due to differentiation is expensive (Porter, 1996).

The employees' perception of flexibility has possessed a significant positive relationship in affecting the performance of organisations in the organisations. Chavez et al. (2017) mentioned that flexibility significantly and positively impact the organisation's financial performance and customer satisfaction. This suggests that the ability to control and make use of organisational resources to convey flexibility will result in a positive return to the organisations. Moreover, flexibility also allows a firm to deal with uncertainty in the environment (Swamidass & Newell, 1987). Mentzer, DeWitt, Keebler, Soonhoong, Nix, Smith and Zacharia (2000) also highlighted that flexibility plays a crucial role as intermediate performance indicators in which this ability will then affect the overall firms' performance.

Innovation has a positive as well as a significant relationship with organisational performance. Atalay, Anafarta and Sarvan (2013) stated that a capital intensive industry continuously focuses on new product and process innovations to improve organisational performance. Innovation also enables firms to continue to survive by serving new or products that have been improved before competitors to the market which in turn increasing the market share of firms and creates competitive advantage. Innovation is an extremely important factor of strategic management where it is the major aspect of competitive advantage not only for firms but also the entire social and economic systems especially during uncertainties in the environment.

Companies have to constantly innovate their products or services and provide ideas that may transform the traditional system of conducting business to continue to survive in the market (Atalay et al., 2013).

Conclusion

By referring to the findings of the research, it can be determined that employees' perception on cost possessed the strongest relationship with organisational performance, followed by quality, flexibility and innovation which also own a positive and significant relationship in influencing the organisational performance among manufacturing firms in Malaysia. However, delivery does not possess a positive relationship with performance of organisation among manufacturing firms in Malaysia whereby the detailed explanation on such relationship has been provided in the previous section.

Limitations and recommendations for future studies

The proposed research objectives have been achieved with the completion of the investigation, yet there are a few
research shortcomings that shall be addressed and discussed so that future researches are aware of that. Firstly, this study is conducted by only focusing on manufacturing firms in Malaysia where there may be differences in terms of culture and business environment in other sectors or countries, hence the results of findings should not be generalised as well as extrapolated into every community.

Secondly, the research is being conducted via the quantitative method with the internet-mediated questionnaire for data collection whereby some of the security systems such as spam guard may block the email received from an unknown sender. This will then lead to a delay in the data collection process and data evaluation. Besides, respondents might also misinterpret the questions as different people will own different perception on the questions being proposed. Thirdly, although this study has examined impacts of competitive priorities in terms of cost, quality, delivery, flexibility and innovation on organisational performance among manufacturing firms as perceived by employees, other factors such as culture, customer-focus and the characteristics of the environment are suggested as a consideration in affecting organisational performance. The proposed research model is limited to only the five key competitive priorities where the factors might change due to the changing of the external environment.

Considering the limitations of this research, more comprehensive research may be conducted and extended to a sample size which is larger in future studies to encompass countries such as Thailand and Indonesia or even from developed countries such as Korea or Japan for the purpose to compare to achieve a clearer understanding on the impact of competitive priorities on organisational performance as perceived by their employees.

A future in-detail survey may be utilised to involve a qualitative approach through conduct interview on the respondents. Moreover, questionnaires that are delivered to respondents by hand or face to face interviews may have more connection with the respondents and receive feedbacks of respondents to attain more input as well as having a more complete understanding in unexpected problems that may arise and not included in the questionnaire survey. Researchers may carry out future studies through adopting other factors such as culture, customer-focus and the characteristics of the environment to analyse their different perspectives and practices in affecting organisational performance to obtain a broader knowledge on determinants affecting organisational performance.

References (A-Z)


Research into Threshold Effect of Technological Innovation Concerning Impact of Urbanization on the Development of Commercial Circulation Industry

Zhou Shuangyan
(Chongqing Normal University Foreign Trade and Business College Chongqing 401520)

ABSTRACT

Abstract: The threshold effect of technological innovation concerning impact of urbanization on the development of commercial circulation industry is empirically tested in this Paper by using provincial panel data. The conclusion indicates that there is a non-linear relationship between urbanization and the development of commercial circulation industry, and the relationship is affected by the technological innovation level. The effect of urbanization on commercial circulation industry is subject to the threshold of technological innovation. When the technological innovation level is low, urbanization cannot promote the development of commercial circulation industry. Only when the technological innovation level is high, urbanization can significantly promote the development of commercial circulation industry, and the higher the technological innovation level is, the stronger the role of urbanization in promoting the development of commercial circulation industry will be.

Key word: urbanization; commercial circulation industry; technological innovation
Introduction

As China’s urbanization improves gradually, the role of urban economy in regional economic growth and people’s livelihood improvement is becoming increasingly stronger. The large demand in urban areas directly promotes the rapid development of commercial circulation industry, which is one of the basic service industries. Therefore, it is necessary to study the commercial circulation industry which boasts rapid development in the course of urbanization, and the effect of urbanization on the development of the commercial circulation industry. Moreover, as urbanization is accompanied by continuous upgrading of urban technological innovation, the improvement of technological innovation directly promotes the urbanization level. Will the technological innovation level affect the role of urbanization plays in business circulation? A variety of identification methods are used in the Paper to mainly analyze the threshold effect of technological innovation concerning impact of urbanization on the development of commercial circulation industry.

Model setting and data description

(I) Interaction item model

Because the relationship between the urbanization and the development of commercial circulation industry is not a simple linear one, the role of urbanization may be affected by the level of technological innovation in a non-linear relationship. Hence, to identify this non-linear relationship, the interactive item model is used in the Paper to mainly analyze the threshold effect of technological innovation concerning impact of urbanization on the development of commercial circulation industry.

\[ w_{it} = \gamma_i + \beta_0u_{it} + \beta_1u_{it} \times inno_{it} + X_{it} + \varepsilon_{it} \]

If the interaction item coefficient is significant when the interaction item is used, it indicates that there is a reciprocal effect and there is a non-linear relationship between the two variables. Therefore, the coefficient \( \beta_1 \) in this model is the focus of the attention.

(II) Panel threshold model

On the basis of the interaction item model, the panel threshold model is further used to test the robustness of the non-linear relationship mentioned above, and the specific model is set as follows:

\[ w_{it} = \gamma_i + \beta_0u_{it} + \beta_1u_{it} \times inno_{it} \square \chi + \beta_2u_{it} \times inno_{it} > \chi + \varepsilon_{it} \]

In this model, urb is independent explanatory variable, inno is relevant explanatory variable, \( I(\cdot) \) is indicator function, indicating the variation relationship of model-related variables when the threshold variable value exceeds a certain threshold value. The explained variable \( w_{it} \) is the proportion of the development expenditure of the commercial and circulation in GDP, the threshold variable inno is technological innovation variable, \( X_{it} \) is series of control variables, including financial development \( (fe) \), industrial structure \( (strf) \), infrastructure \( (inf) \), opening up \( (open) \), fiscal expenditure \( (cz) \) and foreign direct investment \( (wz) \).

(III) Data description

The development of commercial circulation industry is the explained variable of this Paper. Based on the general practice in literature, the proportion of added value of commercial circulation industry in GDP is used in the Paper to measure the commercial industry. The core explanatory variable is urbanization, which is measured by the proportion of urban population in the total one at the end of the year. The technological innovation variable...
is the threshold variable of this Paper, which is indicated by the number of patent licenses per capita. Other control variables include: industrial structure, infrastructure, opening up, fiscal expenditure and foreign direct investment. The data in this Paper are mainly from the China Statistical Yearbook of 1997-2017, including the time interval of 30 provinces from 1998 to 2016. Table 1 indicates the descriptive statistics of the main variables.

Table 1  
Descriptive statistics of variables

<table>
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<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
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<td>4.8854</td>
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<td>1.8141</td>
<td>5.1806</td>
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</table>

Table 2  
Grouping regression result

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<th>High</th>
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</thead>
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<td>(5.04)</td>
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<td>0.2884***</td>
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<td>(3.31)</td>
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<td>(1.27)</td>
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<td>0.0909</td>
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<td>(1.69)</td>
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<td>190000</td>
<td>160000</td>
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</table>

Note: **, *, and + represents significance at the level of 1%, 5%, and 10%, respectively.

Empirical results and analysis

(I) Grouping regression analysis

The idea of this Paper lies in identifying the differences between the effects of urbanization on commercial circulation development under different levels of technological innovation. Grouped regression method can be used to achieve this goal. At the same time, the grouping regression method can also preliminarily identify whether the non-linear relationship exists or not. When the effect of urbanization on the development of commercial circulation industry in different groups has a great difference, it can preliminarily judge the existence of the non-linear relationship. Table 2 indicates that at the low level of technological innovation, urbanization has an insignificant negative impact on the development of commercial circulation industry; under the medium level of technological innovation, urbanization insignificantly promotes the development of commercial circulation industry; while the technological innovation is at a relatively high level, urbanization significantly promotes the development of commercial circulation industry. The result shows that under different levels of technological innovation, there are significant differences in the effect of urbanization on the development of commercial circulation industry, which preliminarily indicates that there exists a non-linear relationship. This relationship will be further identified with interaction item model below.

(II) Interaction item model regression

Grouping regression helps to understand the non-linear relationship between urbanization and the development of commercial circulation industry, but the interaction item model can be used as a further supplement to grouping regression. Therefore, on the basis of grouping regression, the interaction item model is used to further verify the nonlinear relationship. The results in Table 3 indicate that all model interaction item coefficients
are significantly positive, which indicates that there is indeed an interaction effect between urbanization and technological innovation. Whether the empirical results use OLS model, fixed or random effect, the interaction item coefficient will always exist. Hence, the relationship between urbanization and the development of commercial circulation industry is preliminarily proved in this paper to be regulated by technological innovation.

(III) Regional regression

The above model regression is helpful to understand the interaction effect of urbanization and technological innovation, but it not enough to find the difference of this relationship within different regions, hence, the regional regression is needed. For this purpose, on the basis of the interaction item model, interaction item regression is made in this paper for the middle, eastern and western regions respectively. Results in Table 4 indicates that the interaction item coefficients in different regions are significantly positive, which indicates that there are interaction effects between different regions, further verifying the overall regression results.

(IV) Threshold model regression

Threshold test. The above two models are only a rough verification of the non-linear relationship between urbanization and the development of commercial circulation industry, but it is not clear how the interaction impact between urbanization and technological innovation will change suddenly. Hence, an opportunity is provided by the panel threshold model to solve this problem. The principle of the panel threshold model is to search for the threshold value with specific changes on the basis of the Bootstrap method, and then analyze the effect difference under different nodes on the basis of this threshold value. Results in Table 5 indicates that threshold values in the whole sample are -1.076, 0.252, 2.260 respectively, threshold values in the eastern region are 1.586 and 2.278 respectively, threshold values in the middle region are -0.558 and 0.340 respectively, the results of threshold test in western region were not significant, indicating that there is no threshold value.

Table 3 Interaction item model results

<table>
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<th>Random effect</th>
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<td>0.2470**</td>
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<td>(2.43)</td>
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<td>lnc</td>
<td>0.0754***</td>
<td>0.1697***</td>
<td>0.1329***</td>
</tr>
<tr>
<td>lnfe</td>
<td>-0.3226**</td>
<td>-0.2776**</td>
<td>(3.99)</td>
</tr>
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<td>0.0820</td>
<td>0.0569</td>
</tr>
<tr>
<td>lopen</td>
<td>0.0166</td>
<td>0.0047</td>
<td>0.0045</td>
</tr>
<tr>
<td>lnez</td>
<td>-0.1524**</td>
<td>-0.0690</td>
<td>(2.12)</td>
</tr>
<tr>
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<td>0.0552**</td>
<td>(5.49)</td>
</tr>
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<td>0.0352</td>
<td>0.0628**</td>
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<td>(2.12)</td>
</tr>
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<td>r²_a</td>
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<td>(1.10)</td>
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</tbody>
</table>

N, g = 30.0000 30.0000

Note: ***, **, * represents significance at the level of 1%, 5%, and 10%, respectively.

Table 4 Regional differences of interaction effects

<table>
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<tr>
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<th>Western region</th>
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<td>0.1898**</td>
<td>0.1479**</td>
</tr>
<tr>
<td>lnfe</td>
<td>-0.2326**</td>
<td>0.6986**</td>
<td>0.4071**</td>
</tr>
<tr>
<td>lnstrf</td>
<td>0.3272**</td>
<td>0.0739</td>
<td>0.0678</td>
</tr>
<tr>
<td>lopen</td>
<td>0.1337**</td>
<td>0.0812**</td>
<td>0.0648**</td>
</tr>
<tr>
<td>lnez</td>
<td>0.3543***</td>
<td>0.2966**</td>
<td>0.0519</td>
</tr>
</tbody>
</table>

Note: ***, **, * represents significance at the level of 1%, 5%, and 10%, respectively.
Table 5

<table>
<thead>
<tr>
<th>Threshold variable</th>
<th>Model</th>
<th>Threshold value</th>
<th>F-value</th>
<th>P-value</th>
<th>95% confidence interval</th>
<th>Note ***. **. * represents significance at the level of 1%, 5% and 10%, respectively.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological innovation total</td>
<td>Single threshold</td>
<td>1.076</td>
<td>500</td>
<td>27.582**</td>
<td>0.016</td>
<td>(-1.087, 0.650)</td>
</tr>
<tr>
<td></td>
<td>Double threshold</td>
<td>0.252</td>
<td>500</td>
<td>20.636**</td>
<td>0.02</td>
<td>(-0.638, 0.379)</td>
</tr>
<tr>
<td></td>
<td>Triple threshold</td>
<td>2.260</td>
<td>500</td>
<td>20.433**</td>
<td>0.02</td>
<td>(1.328, 2.698)</td>
</tr>
<tr>
<td>Technological innovation (eastern region)</td>
<td>Single threshold</td>
<td>0.585</td>
<td>500</td>
<td>33.769***</td>
<td>0.004</td>
<td>(-0.638, 1.799)</td>
</tr>
<tr>
<td></td>
<td>Double threshold</td>
<td>0.340</td>
<td>500</td>
<td>14.424**</td>
<td>0.02</td>
<td>(-1.291, 2.023)</td>
</tr>
<tr>
<td></td>
<td>Triple threshold</td>
<td>1.813</td>
<td>500</td>
<td>12.890*</td>
<td>0.08</td>
<td>(0.957, 2.410)</td>
</tr>
<tr>
<td>Technological innovation (middle region)</td>
<td>Single threshold</td>
<td>0.902</td>
<td>500</td>
<td>13.906</td>
<td>0.134</td>
<td>(1.087, 0.730)</td>
</tr>
<tr>
<td></td>
<td>Double threshold</td>
<td>0.652</td>
<td>500</td>
<td>5.157</td>
<td>0.296</td>
<td>(-0.696, 3.132)</td>
</tr>
<tr>
<td></td>
<td>Triple threshold</td>
<td>0.220</td>
<td>500</td>
<td>4.121</td>
<td>0.3</td>
<td>(-1.170, 3.132)</td>
</tr>
</tbody>
</table>

Note ***. **. * represents significance at the level of 1%, 5% and 10%, respectively.

Table 6 Regression results of threshold model

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Total</th>
<th>Eastern region</th>
<th>Middle region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tt1</td>
<td>0.4144***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tt2</td>
<td>0.3420</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Threshold regression. Results in Table 6 indicate that when technological innovation is at a low level, urbanization restrains the development of commercial circulation industry; when the technological innovation level is higher than the first threshold value and lower than the second threshold value, urbanization insignificantly promotes the development of commercial circulation industry; when technological innovation exceeds the second and the third threshold, urbanization began to significantly promote the development of commercial circulation, and the higher the technological innovation level is, the stronger role urbanization will play in.
promoting the development of commercial circulation industry. The regression results of the eastern and middle regions also indicate that urbanization has no significant effect on the development of commercial circulation under the low technological innovation level. Only when the technological innovation level is high can urbanization significantly promote the development of commercial circulation industry and the effect of urbanization on commercial circulation industry can be strengthened gradually by technological innovation. For this result, it is believed in this Paper that technological innovation can not only improve the level of urbanization and expand the urban consumer market, so as to create the demand for and stimulate the development of the commercial circulation industry, but also achieve the development and progress of the industry itself directly by the innovation of relevant technologies in the commercial circulation industry. Hence, technological innovation is of great importance. When the technological innovation level is not high enough, it also means that the development of urbanization lacks enough momentum, urban consumption demand is difficult to be upgraded, and the factors such as capital, labor force and technology on which the commercial circulation industry depends for development cannot be matched accordingly, leading to the lack of development of commercial circulation industry.

Conclusion

Urbanization affects the development of commercial circulation industry through agglomeration factors and the expansion of consumption scale. However, regulated by technological innovation, panel threshold model is used in this Paper to verify this conclusion. It is found in the research that urbanization affects the development of commercial circulation in a non-linear line, and the development of technological innovation will bring about interactive impact for the role urbanization plays in the development of commercial circulation. When the technological innovation level is low, urbanization can no longer promote the development of commercial circulation industry; while the technological innovation exceeds a certain threshold, urbanization will significantly promote the development of commercial circulation.

Therefore, in the process of promoting the development of urbanization, local governments must not simply gather populations to cities in order to increase the rate of urbanization. Governments everywhere should start with improving the level of technological innovation in the city so that the industry can better accommodate the urbanized population. At the same time, because the development of the urbanized population is growing, it will further promote the level of technological innovation and the development of commercial and trade circulation, so as to achieve urbanization and technological innovation and the cyclical progress of the trade and circulation industry.

References

2. Xiong Ling. Analysis of the Influence of Commercial Circulation
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FACTORS INFLUENCING ENTREPRENEURIAL INTENTION OF PHNOM PENH CITIZEN, CAMBODIA

Hong Kimhour
One Fraternity Co., Ltd, Phnom Penh, Cambodia

ABSTRACT

Over the last few decades, entrepreneurship has become the most important energy of economic movement. Entrepreneurial intentions are constructed to determine individuals' intention and willingness to get involved in entrepreneurship in the future. The main objectives of this investigation are 1) to study the level of entrepreneurial intentions of Phnom Penh citizen, Cambodia, and 2) to examine the factors influencing entrepreneurial intentions of Phnom Penh citizens, Cambodia.

To achieve these objectives, the data of this investigation was collected by distributing questionnaires to 420 respondents who are living in Phnom Penh city, Cambodia which were divided into 12 districts with 35 respondents for each district. Descriptive statistics and inferential statistics were employed for determining and analyzing entrepreneurial factors. Multiple regression analysis was applied in this study to observe independent variables such as attitudes, social norms, risk taking propensity, perceived opportunities, perceived capabilities and fear of failure.

According to the research result, Phnom Penh citizens have high level of entrepreneurial intentions. The result also illustrates that attitudes, risk taking propensity, perceived opportunities and perceived capabilities play a significant role in demonstrating the entrepreneurial intention. However, to my surprise, social norms and fear of failure fail to generate significant impact on entrepreneurial intentions.

Keywords: Entrepreneurship, entrepreneurial intentions, Phnom Penh, Cambodia

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Introduction

Over the last few decades, entrepreneurship has become the most important energy of economic movement and entrepreneurial activities is a major sector to develop the economic and social spheres (Sankar & Sutha, 2016), so there is no doubt that entrepreneur and entrepreneurship are playing an essential role in today’s global business environment. Nowadays, our lives are influencing by the entrepreneur as we can see there are new products in the market which come to change the world and the way people live such as computers, smart phones, the Internet and social networking.

According to Federation of Associations for Small and Medium Enterprises of Cambodia (2017), Cambodia’s economy has been determining stable growth in 2000s, even after the global financial crisis in 2007-2008, it recovered rapidly and remained constant economic growth rate of 6-7%. Among others factors, small and medium enterprises (SMEs) is playing as essential duty to contribute to Cambodia’s economy and development. According to the result of CIES 2014, there are 512,870 of total micro, small, and medium-sized enterprises (MSMEs) in Cambodia (National Institute of Statistics, 2015) and 1.3 million people are employed by MSME sector which equal to 71.8% of total labor force in the country (Asian Development Bank, 2015). According to National Institute of Statistics (2015), Phnom Penh has the largest number of establishment with 97,200, whose share is 18.9% of the total share in the whole country, with 96,675 of the total micro, small, and medium sized enterprises (MSMEs). As a result, Phnom Penh increases the share of whole industry in Cambodia, so the increases the share of establishments are the result of increase Micro establishments.

As SMEs perform as a key function in Phnom Penh’s economy and development such as job creation, innovation, creativity, government income, that’s the reason we need to study factors influence the intention of starting the new business which is encourage Phnom Penh citizen to be entrepreneurs and to start new businesses. Moreover, the study of factors influencing entrepreneurial intention would assist and support future and nascent entrepreneurs in Phnom Penh to overcome the obstacles and difficulty in an easy way. Equally important, according to Global Entrepreneurship Monitor, Global Report 2017/2018, there is no study or research of entrepreneurship in Phnom Penh city, Cambodia (Singer, Herrington, & Menipaz, 2018). By studying this, enables government, private sectors, non-government organizations, academics, and stakeholders related to entrepreneurial promotion can use this knowledge in order to devise policies, measures, programs, and supporting activities to promote entrepreneurs in Phnom Penh, Cambodia.

Objectives of the study
1. To study the level of entrepreneurial intentions of Phnom Penh Citizen, Cambodia.
2. To study the factors influencing entrepreneurial intentions of Phnom Penh Citizen, Cambodia.
Conceptual framework

<table>
<thead>
<tr>
<th>Independent Variable (IV)</th>
<th>Dependent Variable (DV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes</td>
<td>Entrepreneurial Intentions</td>
</tr>
<tr>
<td>Social Norms</td>
<td></td>
</tr>
<tr>
<td>Risk Taking Propensity</td>
<td></td>
</tr>
<tr>
<td>Perceived Opportunities</td>
<td></td>
</tr>
<tr>
<td>Perceived Capabilities</td>
<td></td>
</tr>
<tr>
<td>Fear of Failure</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Fishbein and Ajzen (1975); Ajzen (1991) and Reynolds et al. (1999)

Figure 1 Conceptual framework

Hypotheses

1. Attitudes have a significant effect on entrepreneurial intentions
2. Social norms have a significant effect on entrepreneurial intentions
3. Risk taking propensity has a significant effect on entrepreneurial intentions
4. Perceived opportunities have a significant effect on entrepreneurial intentions
5. Perceived capabilities have a significant effect on entrepreneurial intentions.
6. Fear of failure has a significant effect on entrepreneurial intentions.

Literature review

In human everyday life, there are many behaviors which are classified into voluntary control or control of the conscious will; if people have the passion to perform these manners or behaviors, they can perform it easily. Regarding this aspect, the theory of reasoned action (TRA) which was propounded by Fishbein and Ajzen (1975) and Ajzen and Fishbein (1980) can be explained further since the theory of reasoned action was used to predict the behaviors of willingness and also helped people to perceive their psychological factors.

Entrepreneurial intentions

Scholars have characterized intention in many ways. Intention is considered as the foundation of creating a new business venture and seeking self-employment which is important before establishing a business enterprise (Mamun, Nawi, Mohiuddin, Shamsudin, & Fazal, 2017). Entrepreneurial intentions used in this study should be -the attention and
conviction of individuals that represent the desire, willingness and purpose to become an entrepreneur and start a new business in the future.

**Factor influencing entrepreneurial intentions**

**Attitudes**

Ajzen (1991) defined attitudes as the level at which an individual holds positive or negative assessment and judgment of behavior, it requires consideration of the outcomes in order to perform that behavior. According to Díaz-García and Jiménez-Moreno (2010), attitude is defined as a measure and degree of commitment towards a new business startup and desire to expend entrepreneurial effort; therefore, the working definition of attitudes used in this study should be “the way of positive thinking and feeling toward entrepreneurial initiatives, which stimulate the individual to be an entrepreneur and start a new business.”

**Social norms**

Social norm, also known as subjective norm, refers to how an individual may act or may not act the desired behavior by addressing the social pressure recognition (Ajzen, 1991) since the pressure comes from family members, friends and society that impact individual’s manner to become self-employed.

According to Khuong and An (2016), social norm serves as point of view of individuals in relation to the values, thinking, beliefs, and norms held by important persons, especially a person that has a massive influence on them or a person that they really respect. From the above definitions, working definition of social norms used in this study should be “an individual’s point of view, which is shared among the society, family, friends, and role models. This is related to thinking, beliefs, and norms which impact individual’s behavior to become an entrepreneur and start a new business.”

**Risk taking propensity**

Shamsudin et al. (2017) defined risk taking propensity as a person's recent proclivity to accept risks or to escape risks. Risk endurance is considered as an element of entrepreneurial principle, the reason is that before new goods or services are established, every individual does not certainly know or make sure that they can produce the desired product which can meet the needs of the consumer, or whether the product or service can generate profit (Tang & Tang, 2007). According to Herdjiono et al. (2017), risk taking propensity is a fearlessness to grab opportunities by considering risk and regularly determining the size of the risk. Therefore, risk taking propensity is the tendency of an individual to take chances with the recognition of risks that one has to face. It’s by measuring the size of risk.

**Perceived opportunities**

According to Reynolds et al. (1999), opportunity refers to market opportunities that exist and are available to accomplish as well as to exploit. Casson (1982) defines opportunities as circumstances that new products, commodities, services, raw materials, or ways of organizing could be proposed to generate economic profits. The new activities of opportunity which include setting up a new enterprise, proposing a brand new product and service, or developing a new technique of production tend to be pointed out by opportunity identification research (Shane, 2003); therefore, perceived opportunities in this study is opportunities being recognized that enable a new business opportunity. It refers to individuals who are
looking for opportunities which are related to perceiving the possibility to be an entrepreneur and starting a new business. The opportunities include profit opportunity, new products and services, value creation, innovation, efficiency of producing existing goods, services and processes, and so on.

Perceived capabilities

Reynolds et al. (1999) defined capabilities as the individuals’ motivation and encouragement to create new organizations and the degree to which people have knowledge, experiences and skills required to seek entrepreneurial initiatives. According to Shepherd and DeTienne (2005), perceived capability can be described as the percentage of the belief and though that individuals has the capabilities to accomplish certain goals as well as objectives, particularly associated with entrepreneurial activities or entrepreneurship. A working definition of perceived capabilities should be “abilities recognized by the individuals that have required knowledge and skills which is connected to the nature of their businesses in order to be an entrepreneur or start new business.”

Fear of failure

According to Atkinson (1957), fear of failure is the propensity and capability to experience embarrassment or shame upon failure. Wagner and Sternberg (2004) consider fear of failure as a signal of high risk aversion level, and a negative effect on the possibility of becoming a new entrepreneur. Fear of failure is a main element of risk which connected to forming a new firm (Arenius & Minniti, 2005). The definition of fear of failure in this study is individual attitudes toward risk and negative impact on the probability of something may go wrong in the business, this act as hindrance to be an entrepreneur and setting up new business.

Research methodology

Population and sampling

The population and sample size of this research is working age population (National Institute of Statistics, 2018) in Phnom Penh, Cambodia, age between 15 to 64 years old. According to National Institute of Statistics (2018), there are 1,419,000 of total working age population in Phnom Penh aged between 15 to 64 years old. Since the sample size of this research is 420 samples; therefore, the researcher will directly distribute 420 questionnaires to the respondents in 12 districts namely 7 Makara, Daun Penh, Mean Chey, Por Sen Chey, Chomkarmon, Chhroy Chong Va, Toul Kork, Dong Kao, Russey Keio, Sen Sok Chhbar Om Pov and Prek Pnov in Phnom Penh city, so the survey is conducted with the amount of 35 samples in each district. In order to reach the sample of this study, the researcher would like to use Taro Yamane formula (Yamane, 1973). The total sample size is 399.88 equal to 400, the researcher would add another 20 samples in this study in order to avoid the error and get a better result; therefore, the total sample size of this research is 420 people.

Research instrument

Researcher use questionnaires to obtain responses from respondents. There are 3 parts in each questionnaire. The questionnaires are translated to Khmer language by the researcher. Part A is related to respondents’ personal information containing gender, age, occupation, period of obtaining their occupation, level of education and income. For part B, it is related to the variables both dependent and independent, the
respondents are required and asked to answer based on five-point Likert scale which range from 1 “strongly disagree” to 5 “strongly agree”. Part C is about the perception of respondents regarding types of business that they want to start in the near future, the answer of the question is derived from International Standard Industrial Classification which consist of 21 types of industrial (National Institute of Statistics, 2015). Check the quality of research instrument by using validity and reliability. After testing, researcher finds that the result of Coefficient Cronbach’s Alpha is 0.910 which is greater than 0.7 (Pallant, 2013, p. 104).

Results

For the level of entrepreneurial intentions, the finding shows that there are 16 dimensions of entrepreneurial intentions, the details of each question was found that thirteen of them are in high level and three of them are in average level. The result reveals that the average mean of entrepreneurial intentions is 3.72 which is in high level, therefore, the researcher finds that Phnom Penh citizen have high level of entrepreneurial intentions overall.

The finding shows that p-value of attitudes is 0.000 with B value of 0.477, p-value of risk taking propensity is 0.000 with B value of 0.248, p-value of perceived opportunities is 0.000 with B value of 0.271 and p-value of perceived capabilities is 0.000 with B value of 0.154; the p-value of attitudes, risk taking propensity, perceived opportunities and perceived capabilities are less than 0.050; therefore, attitudes, risk taking propensity, perceived opportunities and perceived capabilities have significant effect on entrepreneurial intentions. By comparing B value, attitudes have the most significant effect; perceived opportunities have the second most significant effect; risk taking propensity has the third most significant effect; and perceived capabilities have the least significant effect on entrepreneurial intentions. The finding shows that p-value of social norms is 0.130 with B value of 0.076 and p-value of fear of failure is 0.171 with B value of 0.041, the p-value of social norms and fear of failure are greater than 0.050; therefore, social norms and fear of failure do not have significant effect on entrepreneurial intentions.
Table 1: Summary of multiple regression analysis of attitudes, social norms, risk taking propensity, perceived opportunities, perceived capabilities, fear of failure and entrepreneurial intentions.

<table>
<thead>
<tr>
<th>Model Summary</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Model</td>
<td>R</td>
<td>Adjust R Square</td>
<td>Std. Error of the Estimate</td>
<td>Durbin-Watson</td>
</tr>
<tr>
<td>1</td>
<td>0.747</td>
<td>0.559</td>
<td>0.444</td>
<td>1.974</td>
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</table>

<table>
<thead>
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<td>df</td>
<td>Mean Square</td>
<td>F</td>
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<td>Regression</td>
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<td>6</td>
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<td>Residual</td>
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<td>413</td>
<td>0.197</td>
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<tr>
<td></td>
<td>Total</td>
<td>184.103</td>
<td>419</td>
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<table>
<thead>
<tr>
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</thead>
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<tr>
<td>Model</td>
<td>Unstandardized Coefficients</td>
<td>Standardized Coefficients</td>
<td>Collinearity Statistics</td>
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</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>T</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-0.385</td>
<td>0.202</td>
<td>0.378</td>
</tr>
<tr>
<td></td>
<td>AT</td>
<td>0.477</td>
<td>0.052</td>
<td>0.378</td>
</tr>
<tr>
<td></td>
<td>SN</td>
<td>-0.076</td>
<td>0.050</td>
<td>-0.063</td>
</tr>
<tr>
<td></td>
<td>RT</td>
<td>0.248</td>
<td>0.044</td>
<td>0.234</td>
</tr>
<tr>
<td></td>
<td>PO</td>
<td>0.271</td>
<td>0.053</td>
<td>0.238</td>
</tr>
<tr>
<td></td>
<td>PC</td>
<td>0.154</td>
<td>0.041</td>
<td>0.155</td>
</tr>
<tr>
<td></td>
<td>FF</td>
<td>0.041</td>
<td>0.030</td>
<td>0.048</td>
</tr>
</tbody>
</table>

**Note:**
- a. Dependent Variable: EI
- b. Predictors: (Constant), AT, SN, RT, PO, PC, FF

Equation 1 (Unstandardized coefficients):
Entrepreneurial Intention = -0.385 + 0.477 Attitudes + 0.248 Risk Taking Propensity + 0.271 Perceived Opportunities + 0.154 Perceived Capabilities

Equation 2 (Standardized coefficients):
Entrepreneurial Intention = -0.378 Attitudes + 0.234 Risk Taking Propensity + 0.238 Perceived Opportunities + 0.155 Perceived Capabilities
Conclusion

Objective 1: To study the level of entrepreneurial intentions of Phnom Penh Citizen, Cambodia.

Descriptive statistical analysis in chapter 4 shows that there are 16 dimensions of entrepreneurial intentions, the details of each question was found that thirteen of them are in high level and three of them are in average level. The result reveals that the average mean of entrepreneurial intentions is 3.72 which is in high level, therefore, the researcher finds that Phnom Penh citizen have high level of entrepreneurial intentions overall which mean that they have high level of intentions and willingness to start new businesses.

Objective 2: To study the factors influencing entrepreneurial intentions of Phnom Penh Citizen, Cambodia.

Attitudes have significant effect on entrepreneurial intentions which is consistent with Moi et al. (2011); Lee et al. (2012); Muhammad et al. (2015); Usman and Kamau (2017). Risk taking propensity has significant effect on entrepreneurial intentions which is consistent with Bezzina (2010); Zhang et al. (2015); Weda (2017). Perceived opportunities have significant effect on entrepreneurial intentions which is consistent with Arenius and Minniti (2005); Lin et al. (2017). Perceived capabilities have significant effect on entrepreneurial intentions which is consistent with Lin et al. (2017). While social norms do not have significant effect on entrepreneurial intention which is opposite of Lee et al. (2012); Zhang et al. (2015); Lin et al. (2017). Fear of failure does not have a significant effect on entrepreneurial intentions which is opposite to the findings of Arenius and Minniti (2005); Wennberg et al. (2013); Bakar et al. (2017). Attitudes have the most significant effect; perceived opportunities have the second most significant effect; risk

The variables

There are seven variables in this study: (1) attitudes, (2) social norms, (3) risk taking propensity, (4) perceived opportunities, (5) perceived capabilities, (6) fear of failure and (7) entrepreneurial intentions.

Demographic data

There are 420 respondents for this research. 214 of them are female, and 206 of them are male. 227 of them are between 25 to 34 years old. 120 of them are between 15 to 24 years old. 43 of them are between 35 to 44 years old. 18 of them are between 45 to 54 years old. And 12 of them are 55 to 64 years old. The occupations of the respondents are students, worker, employees, government officers, housewife and others. 98 of them never working or don’t have working experience. 95 of them have been working between 3 to 4 years. 89 of them have been working between 5 to 6 years. 80 of them have been working more than 6 years. And 58 of them have been working between 1 to 2 years. About their highest level of education, 294 of them are bachelor degree. 94 of them are master degree. 24 of them are high school. 4 of them are doctoral degree. 2 of them are secondary school and 2 of them are primary school. About their monthly income, 151 of them earn more than KHR 2,400,000. 93 of them earn less than or equal to KHR 600,000. 71 of them earn between KHR 1,200,001 to 1,800,000. 57 of them earn between KHR 1,800,001 to 2,400,000. And 48 of them earn between KHR 600,001 to 1,200,000.

Discussion

The research findings are discussed based on research objectives of the investigation as following:
taking propensity has the third most significant effect; and perceived capabilities have the least significant effect on entrepreneurial intentions. Social norms and fear of failure do not have significant effect on entrepreneurial intentions.

**Recommendations**

- **Attitudes, risk taking propensity, perceived opportunities, perceived capabilities** have significant effect on entrepreneurial intentions. These results are beneficial in contributing implications for various parties as below.

*For government and policy maker*

The government and policy makers can develop various activities and programmes by providing fundamental foundation in order to get start-up information, offer platform for inspired future entrepreneurs to test their business ideas that will reinforce the positive attitudes, increase awareness of entrepreneurship and enhance further entrepreneurial intention of the citizen.

The government and policy maker should organize more entrepreneurial-related activities, projects and workshops such as creating projects like business proposal competitions or business plan competitions that can provide chance to people to participate then provide some fund or supports to establish the real business.

The government and policy maker should try to create more business opportunities for the people by creating a business encouragement center where newcomers and entrepreneur can meet together to discuss their mutual intention in starting a new venture, this center can help to match partners, investors inside and outside the country to transform ideas as well as innovations from paper into reality.

*For private sectors*

Private sectors such as Cambodia Chamber of Commerce, Federation of Associations of Small and Medium Enterprises in Cambodia, Young Entrepreneurs Association of Cambodia, or similar organizations, should come up with effective training or seminar to transfer knowledge and know-how which is related to the skill that they can use in their business such as accounting, human resource management, financial management, sales and marketing, export, import,...etc., to enable people to calculate their start-up capital, how to sell the product in the market as well as make financial decision to create sustainable businesses in the future.

Private sectors should develop programme and other activities to support the government and policy maker in promoting and increasing the awareness of entrepreneurship as well as convincing the people on the benefits of being an entrepreneur by being the sources of relevant business information, enabling access to business opportunities within Cambodia as well as regional and developing partners. Additionally, acting as policy advocate the interest of entrepreneurs with the government.

*For private sectors*

The researcher would suggest if they have intention and willingness to create their own business, they should learn to accept the concept of risk and dare to take risk since being an entrepreneur is involving in risk. They can make risk assessment and mitigation, this would help them to measure and minimize the effect of risks and create strategies in case their entrepreneurial ventures fail to materialize as expected.

The intended entrepreneurs should study how to examine the opportunities by analyzing unmade needs or unmade wants, that’s there’s no other competitors offering in Cambodia. Moreover, they should update news information since this could help them to use for business gain and create more business opportunities or chances for themselves as well.
The researcher would suggest individuals to participate in training or seminar which can provide them more knowledge, skills and experiences, this would enable them to successfully start their own business in the future. Moreover, they can learn new knowledge or skills through online.

**Recommendations for future research**

The researcher would suggest the following as future research:

1. This investigation is the first of its kind to investigate the entrepreneurial intentions of Phnom Penh citizen or in Phnom Penh city; therefore, researcher would recommend that further research should conduct the research to investigate the entrepreneurship in other provinces or the whole Cambodia.

2. The findings are depended on quantitative methodology which lessens uncertain casual effects between variables; therefore, more sophisticated analysis and qualitative approaches are required to tackle further research on entrepreneurial intentions.

3. Conducting the research with longer period is recommended for further research because this can ensure that future researcher could get consistent and logical result that entrepreneurial intentions of individuals can guide to certain action in the future.

4. This research investigates entrepreneurial intentions only; the researcher would suggest the future researcher should study the influence of entrepreneurial intentions to entrepreneurial behavior or setting up a business.

**References**


What are the Differences between Customer Experience and User Experience based on practical and academic perspectives

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ABSTRACT

A clear understanding of both customer experience and user experience is crucial to businesses especially with companies that operate both online and offline. This research aims to elaborate the differences between customer experience and user experience from academic and practitioner perspectives as well as to draw a line to separate both terms for the future research. Definitions of both terms were gathering from both academic journals as well as publications by practitioners who are considered experts and work on both customer experience and user experience domains from various industries. The data were synthesized and summarized into themes and categories to identify similarities and differences between both terms and then propose new definitions and scopes of each terms that capture both academic and practitioner perspectives. The definitions and scopes will be used as a ground concept for empirical research in the future.

Keywords: Customer Experience; User Experience; Customer Experience Management; Documentary Research

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Introduction

Creating a great user experience is a major goal of many technology-led companies as well as customer experience. Customer experience has been in focus of both marketing academics and practitioners for over 60 years (Lemon and Verhoef, 2016; Abbott, 1955 and Alderson, 1957) specifically when talking about customer satisfaction. Human behavior and customer experience were also embraced into marketing practices as well as the growing path of experiential theorists especially in 1980s (e.g. Hirschman and Holbrook, 1982; Thompson, Locander and Pollio, 1989). However, user experience has been brought into wider knowledge in mid-1990s by Donald Norman (1988) in which marked a shift from the previous term ‘user centered system design’ where emphasis on the system and the aesthetics of the interface, yet Norman has instead shifted the focus into the needs of the user (Norman, 1988; Norman, 2018). The reason for him to invent the term is human interface and usability were too narrow and he wanted to cover all aspects of the person’s experience with the system, which including industrial design graphics, the interface, the physical interaction and the manual. Since then the term has spread widely so that it is starting to lose its original meaning.

Further when start-ups companies or technology-led companies grow with their businesses and realized the needs of marketing practices where marketers are working with satisfying customer experiences. This creates somewhat confusion between customer experience and user experience. It will become more confuse when the companies working in omni channels environments where they have both users and customers. Are they the same people? Some people may say yes; some may say no, and both answers were correct at different circumstances. Some users become the company’s customers; some may not.

Roles and responsibilities of those who work with user experience and customer experience are therefore different. So, what are the differences? The researcher has attempted to answer those questions and found that the academic and practitioner understanding about these terms are somewhat different. This research aims at proposing definitions for both terms by compare and contrast the academic and practitioner perspectives toward both terms.

Objectives of the study

1. To compare the definitions of customer experience and user experience in academic and practitioner perspectives
   To propose definitions and scopes of customer experience and user experience that would meet both perspectives
Conceptual framework

**Customer Experience**
End to End Customer interactions with a Brand

**User Experience**
Concerned with the usability of a website or digital product

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**Literature reviews**

There are three main sections of literature reviews starting with comparison of the meaning of customers and users. Then the second topic, we will discuss on literature reviews of customer experience, and finally on the last section, user experience will be discussed.

Customer experience and user experience are literally different on their first word “customer” and “user.” There are a few definitions of the term “customer.” Bloomental (2020) defined “customer” as “Customers are the individuals and businesses that purchase goods and services from another business.” Business Dictionary (2019) defined it as “a party that receives or consumes products (goods or services) and has the ability to choose between different products and suppliers.” User is simpler, it refers to the one who use or interact with the systems (Norman, 2013).

When consider the similar part, “experience” is the process of getting knowledge or skill from doing, seeing, or feeling things, or it can also refers to something that happens to you that affects how you feel (Cambridge Dictionary, 2019).

**Definitions of Customer Experience and its origin**

When combine this two parts together, the meaning of customer experience can be defined as multidimensional construct focusing on a customer’s cognitive, emotional, behavioral, sensorial and social responses to a company’s offerings during the customer’s entire purchase journey (Lemon and Verhoef, 2016). Schwager and Meyer (2007) discussed that many companies usually measure customer satisfaction yet neglect to measure customer experience as customer experience does encompass more than just satisfaction. However, customer experience concerned with every aspects of the company’s offerings i.e. every value propositions the company propose and/or
deliver to the customer, which include quality of customer service, advertising, packaging, product and service features, ease of use, and reliability. Schwager and Meyer (2007) also mentioned that in a company there are a few people responsible to make decision based on these issues, however, no one more senior overseeing everyone efforts. They defined “customer experience” as “internal and subjective response customers have to any direct or indirect contact with a company” (Schwager and Meyer, 2007). Direct contact usually occurs during purchase, use, and/or service and is typically initiated by the customers. The indirect contact most often involves unplanned encounters with representations of a company’s products, services, or brands. It usually happens in the form of word-of-mouth, recommendations, suggestion, or criticisms, advertising, news reports, reviews, etc.

Customer experience becomes more and more important especially when we are moving into the age of consumer (Kotler, Kartajaya, and Setiawan, 2010), nowadays many people have called it “CX”. However, Fish (2018) and Lemon and Verhoef (2016) had demonstrated that the term has not just yet emerged. Customer experience originates from sources as disparate as call center technology and marketing analytics (Fish, 2018). Lemon and Verhoef (2016) had put effort to summarize the historical perspective on customer experience. They put the literatures into timelines and conclude that customer experience has been studying since 1960s-1970s in the domain of Customer buying behavior especially on process models by Lavidge and Steiner (1961) and Howard and Sheth (1969). Both papers had been contributed that customer experience encompassed path to purchase, however, the studies were board and experiential focus and considered customer experience and customer decision-making as a process. In 1970s, the research had shifted focuses to customer satisfaction and loyalty, Oliver (1980), Zeithaml (1988), Bolton and Drew (1991). Gupta and Zeithaml (2006) identified key metrics to begin to assess overall customer experience, studied empirical linkage models to identify key drivers of the customer experience. They also assessed and evaluated customer perceptions and attitudes about an experience.

Later in 1980s, service quality become significantly important to the success of marketing, Parasuraman, Zeithaml, and Berry (1988), Bitner (1990, 1992), Rust and Chung (2006), Bitner, Ostrom, and Morgan (2008) were focusing on service quality and incorporating atmospherics and environment to the customer experience. They also provided early customer journey mapping through blueprinting, linked marketing and operations—focus on quality, and identified the specific context and elements of the customer experience. In 1990s, the marketing turns to focus on relationship marketing, a few researchers e.g. Dwyer, Schurr, and Oh (1987), Morgan and Hunt (1994), and Berry (1995) had contributed a few more knowledge to the customer experience. They have expanded the concept of customer experience to B2B contexts, identified key attitudinal drivers, broadened the scope of customer responses considered in the customer experience.

In the 20th Century, customer relationship management was the domain of interest, Reinartz and Kumar (2000), Verhoef (2003), Bolton, Lemon, and Verhoef (2004), Reinartz, Krafft, and Hoyer (2004), Rust, Lemon, and Zeithaml (2004), Payne and Frow (2005), Kumar and Reinartz (2006), Neslin et al. (2006); Kumar and Shah (2009) studied and enabled the return-on-
investment assessment, identification of key touch points and drivers, expanded to focus on data driven, incorporated multichannel aspects, identified how specific elements of the customer experience influence each other and business outcomes.

During 2000-2010s, researchers who interested in customer centricity and customer focus had enlarged the domain of customer experience by including customer perspective throughout organization, embedded the customer and customer data deeper into the organization, and focused on redesigning customer experience from customer perspective (Sheth, Sisodia, and Sharma, 2000), (Gulati and Oldroyd, 2005), (Shah et al., 2006). Recently, in 2010s, in the field of customer engagement, Libai et al. (2010), Van Doorn et al. (2010), Brodie et al. (2011), Kumar, Peterson, and Leone (2010), Kumar et al. (2013) and Hollebeek, Glynn, and Brodie (2014) have recognized value of nonpurchase interactions, incorporated positive and negative attitudes, emotions, and behaviors, built conceptual platform to incorporate social media, and more clearly recognized the customer’s role in the experience.

Lemon and Verhoef (2016) have proposed a model that links customer journey and customer experience, so it is easier to create, understand and manage customer experience (See Figure 2). Fish (2018) also said that customer experience is and will continue to adapt, grow and change in the future.

![Figure 2: Process Model for Customer Journey and Experience (Lemon & Verhoef, 2016)](image)

In sum, customer experience is related to many topics in both B2B and B2C marketing domains ranging from buying behaviors, customer satisfaction, customer loyalty, service quality, relationship marketing, customer relationship management, customer centricity to customer engagement (See Figure 3). However, it could be evolved based on customer expectation and perception toward products and/or serviced obtained.

![Figure 3: Scope of Customer Experience](image)

**Definitions of User Experience and its origin**

Since the world first computer was invented, human must interact with machine. At that time, computer was a rare item, people need to learn how to use it and put all effort to make it easy to use from...
time to time. Later in 1980s, human-computer interaction or HCI was surfaced. HCI is a multidisciplinary fields of study focusing on the design of computer technology and, in particular, the interaction between humans (the users) and computers (Interaction Design Foundation, 2020). The HCI related to computer science, cognitive science as well as human factors engineering. Initially, HCI concerned only with computers, it has been expanded to cover almost all forms of information technology design later (Card, Moran, and Newell, 2019).

In design industry, there is another principle called ‘user centered design’ or UCD, which was discussed in a book named ‘The Design of Everyday Things’ by Norman (1988). This book became a principle of product and service designs as well as application and website design later. It was classified as a classic book for designers too (Norman, 1988 and 2013). In this book, Norman (1988) first explains the importance of user-centered design. He said that design decisions should be based on the needs and wants of users. Hence, UCD is an iterative design process in which designers focus on the users and their needs in each phase of the design process.

After the UCD, the designers turned their focuses into ‘usability.’ Nielsen (1994) has defined 10 general principles for interaction design as 1) Visibility of system status, 2) Match between system and the real world, 3) User control and freedom, 4) Consistency and standards, 5) Error prevention, 6) Recognition rather than recall, 7) Flexibility and efficiency of use, 8) Aesthetic and minimalist design, 9) Help users recognize, diagnose, and recover from errors, and 10) Help and documentation. However, with usability, the product and/or service is only easy to use. In 1993, Don Norman coined the term ‘user experience’ for his group at Apple Computer (Neilson, 2017). He is the world first user experience architect appointed by Apple in 1995. Together with the rise of experience economy and the digital transformation in various industries, user experience has been more and more important especially when there are so many start-ups getting into the businesses.

Further, when the digital channel becomes more relevant, UX, an acronym for user experience is used to denote the user experience in a digital channel (Falbe, Anderson, and Frederiksen, 2017). UX focuses on the user’s behavior, attitudes, and emotions while using a digital product, system, and service. According to Falbe, et. al., (2017), there are two different definitions of the term user experience, which are:

1) A person's entire experience using a specific product, system, and/or service - Wikipedia
2) User Experience encompasses all aspects of the end-user's interaction with the company, its service, and its products. - NN Group

The big different between these two definitions are the scope. The first one, UX is about the product; the second one, it is not only about the product, yet includes the interaction with the company as a part of UX too (Falbe, et. al., 2017).

Now, let discuss on the scope of the term ‘user experience’. The term itself is a broad term that can be divided up into four main disciplines: Experience Strategy, Interaction Design, User Research and Information Architecture (Stevens, 2019).
However, if considering into details on each discipline, user experience has so many sub-disciplines, it is a lot more than just a case of sketching and wireframing. It is a multidisciplinary field, drawing upon elements of cognitive science and psychology, computer science, communication design, usability engineering and more as listed in Figure 5 (Stevens, 2019, and Daffer, 2008).

Jenzer (2020) have divided UX into seven disciplines, which are: 1) user research that is to understand the people who use a product or system through conducting research, 2) information architecture that is to identify and organize information within a product or system in a purposeful and meaningful way, 3) interaction design is to design the interactive behaviors of a product or system with a specific goal or purpose on the usage, 4) usability evaluation is to measure the quality a user's experience when interacting with the product or system, 5) accessibility evaluation is to measure the quality of a product or system to be accessed irrespective of personal abilities and device properties, 6) visual design, which is designing the visual qualities of a product or system in an aesthetically pleasing way, and 7) content strategy this is related to plan for the creation, delivery, and governance of useful, usable content.

Research methodology
This is an exploratory research, researchers conducting a documentary research by collecting and analyzing of relevant articles and books related to customer experience and user experience domains to identify the academic perspective of both terms. In parallel, researchers have collected articles published by practitioners i.e. companies, designers, marketers who are working in related areas on various websites to identify the practitioner perspective of both terms. After that, researchers took those data to underline the similarities and differences between academic and practitioner perspectives. Finally, clear definitions and scopes of the terms “customer experience” and “user experience” were proposed as results of this research.
Results

After synthesis all documents obtained both online and offline, the researchers have underlines that for customer experience, academic are more focusing on each sub-domain of marketing as discussed earlier, while the practitioners are focuses more on their product or services i.e. industry they are working on. However, the definition of the term “customer experience” is not much different and could be proposed as “It is the end to end (E2E) customer interactions with a brand or a company” (See Figure 6 and 7).

Although there are not many academic papers that discussed the definition of user experience compared to the ones that written by the practitioners, the results show that the similarity is that it is an interaction between the user and the products or system, however, it can also be extended into the company or brand too. The differences are more on its scope.

Therefore, the researchers would like to propose the definition of the User Experience as “the digital interactions between a user and a company or a brand”. Based on the proposed definitions, User Experience is a subset of customer experience for a company or a brand (See Figure 6 and 7).

![Figure 6: Definitions of Customer Experience and User Experience](image-url)
Figure 7: Scope of Customer Experience and User Experience

Figure 8: Scope of User Experience in multidisciplines
Regarding scopes of each term (See Figure 8), since customer experience has far longer in the history, there are lots of different in nature. However, based on the proposed definition, customer experience covers brand reputation, customer services, empathy, value, sales, advertising, marketing, product delivery as well as operation i.e. it is every activities that brand or company touching with its customers including user experience if the brand or the company has its digital footprints.

Further, the user experience is dealing with information architect, usability, competitor analysis, content strategy, visual design, sound, interaction, animation, coding, user research, empathy, prototype, interface, and wireframe. Figure 7 and 8 show scopes of both customer experience and user experience as well as how they intersect with each other and the other related domains.

Discussion

Definitions and scopes of customer experience and user experience are the main results of this research, which can be used to frame conceptual framework for confirmation study so they can be generalization. Further, the definitions of both terms are lean toward the academic perspectives, yet, with the clearer scopes for user experience and eliminate the grey area toward what are the different between customer experience and user experience. The user experience is considering only the digital interactions between users and brands, while customer experience is responsible for every interaction between the customers and the brands.

Bear in mind that users could be anybody that come to use digital product or interact with brand or company without paying any money i.e. not a customer yet.

Conclusion

There are a few similarities and differences between academic and practitioner perspectives toward both terms, especially the scopes. We have proposed the definition of customer experience as “all interactions between a user / a customer with a brand or a company”, while user experience is “digital interaction between a user and a brand or a company”. With these definitions, it is clear that user experience is a subset of customer experience.

Recommendations

With the proposed definitions and scopes of both terms, the academics could use it to further develop their academic research, practitioners would also understand more on their roles and responsibilities as well as be able to apply them into their works to gain better performance in performing activities related to customer experience and user experience. Further, other company functions such as human resource would also be able to use the proposed definitions and the scopes to simplify their human resource activities.

Limitations and recommendations for further study

Definitions and scopes of both terms are defined based on synthesis of literature reviews, further step would be to conduct a confirmation research to ensure that the
definitions are satisfied both academics and practitioners who work in these areas. Moreover, it would also be great to conduct the study on several industries, so we could understand the different perspectives on each industry too.

References


IMPACT OF GOVERNANCE INDICATORS ON FOREIGN DIRECT INVESTMENT INFLOWS

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ABSTRACT

The recent trend of global FDI flows has drawn the attention of policymakers and academicians. In the past decade, developed countries which are perceived to have a better governance framework recorded decreasing FDI inflows. On the contrary, developing countries, especially China, which is regarded to have a more mediocre governance system received more massive flows of FDI. Thus, it raises a question: is governance a crucial factor in attracting the FDI inflows? This study aims to investigate the impact of nation governance indicators which include voice and accountability, political stability and absence of violence, government effectiveness, and the rule of law and control of corruption, regulatory quality on foreign direct investment. This study uses panel data with a sample size of 114 of countries from the year 2008 to 2017. Apart from the economic growth rate, the estimated results from the random-effect model suggest that governance has a positive effect on FDI inflows.

Keywords: governance, FDI inflows, panel data, random effect model

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Introduction

Foreign direct investment (FDI) is always one of the popular topics which are commonly studied and applied in various fields of research in the past few decades. However, there are still many questions regarding the flow of FDI, which are very difficult to give a sufficient explanation due to various types of philosophical principles which applied to this area of studies. FDI plays a vital role in spurring economic growth through job creation, technology transfer, knowledge sharing, etc.

Meanwhile, the concept of governance is widely investigated since the past few decades as well. A sound governance framework is possibly the single most significant factor in supporting the development of a nation’s economy (United Nations, 1998). According to Marston (2007), good governance is a valuable country asset. Investors have multiple national markets to select. A country with good governance can enhance the attractiveness of the country’s financial markets relative to another’s. A high attractiveness of financial market would attract more foreign investor to invest; thus, the FDI rate of the host country can increase.

Foreign Direct Investment

Over the past few decades, FDI has developed conspicuously as one of the significant factors of international capital transfer. FDI is defined as a foreign company, or foreign investors make a physical invest in a local company or country, which will bring some positive impacts to the economy of the host country. FDI can act as a catalyst in boosting the economy effectively, especially in developing countries.

Global FDI inflows continued to decline in the year 2018 by decreased by 13% from US$1.5 trillion to US$1.3 trillion back in the year 2017; this is the third decline in global FDI inflow trend. There are several reasons which cause a reduction in global FDI inflows. The first reason was that American multinational corporations returned the accumulated foreign income in the first two quarters of the year 2018. The second reason was that tax reform implemented at the end of the year 2017. The last reason was the lack of compensation from the upward trend in the second half of the year 2018. Although the cross-border merger and acquisitions (M&As) transactions had increased by 18% from US$694 billion to US$816 billion between the year 2017 and 2018, still the downward trends are present. Although there is a negative trend, the value of the green field investments had increased by 41% from US$698 billion to US$981 billion.

The overall FDI inflows to developed countries and the economic transition had decreased significantly. In contrast, the developing countries are under a stable situation by rising by 2%. The World Investment Report (2019) highlighted that share of global FDI in emerging economies had increased in the year 2017. Meanwhile, foreign repatriation from the US multinational companies declines in the second half of the year 2018. The revocation of the multinational corporations’ outstanding foreign income tax by the US multinational corporations may have led to a surge in M&As in the last quarter of 2018, limiting global FDI declines throughout the year.

Furthermore, the report concludes that the FDI potential trend remains negative, despite the increasing cross-border M&As, fluctuations in internal corporate capital flows. The average annual growth rate of the underlying trends has endured above 10% a decade ago and has remained at levels less than 1% since then. These weak underlying trends will continue to affect the outlook for FDI.

Furthermore, according to the World Investment Report (2019), the developed economies’ FDI inflows had reached the lowest point since the year 2014, declining by 27%. The FDI inflows to Europe more than halved to US$172 billion in the year 2018. While those to North America were more resilient, decreased by
4% from US$302 billion to US$291 billion between 2017 and 2018. Although cross-border M&As remains active (increased by 21% in value), it was still not sufficient to repay the negative outward FDI from the US which caused by the tax reforms.

According to the World Bank database, some key countries in Europe, such as Ireland and Switzerland, have a record of negative FDI inflows. With new equity investments split, United Kingdom (UK) FDI inflows also fell by 36% to US$64 billion. Nevertheless, the completion of several significant transactions had led to 20% increase in the fund flows to the Netherlands. Meanwhile, the funds flowed to Spain were increased doubled with the outcome of US$4.4 billion. FDI inflows of the US dropped by 9% to US$252 billion, mainly due to a decline in the sales of cross-border M&As. FDI inflows to Australia had reached a record of US$60 billion, which was a profit of US$25 billion investment by foreign branches in the country.

Asian developing countries and African countries have a good record of FDI inflows in the year 2018, while FDI inflow in Latin America and the Caribbean reduced. Asian developing countries become the biggest recipients of FDI, with an increase of 4% to US$51.2 billion in the year 2018, all of the sub regions were experiencing positive growth. Besides, as the largest recipient of FDI in the developing economy, China successfully attracted US$139 billion FDI, an increase of 4%. Moreover, South East Asia countries’ FDI inflows increased in three consecutive years and reached a new record level of US$149 billion. Even though African countries received a total of US$46 billion FDI, i.e. an increase of 11%, it was still lower than the average annual FDI received in the past decade. The increase in inflows was mainly due to continuous investment in resources, expansion of investment in some economies, and an increase in FDI inflows into South Africa from 2 billion USD to 5.3 billion USD.

After five consecutive years of negative FDI growth in Latin America and the Caribbean, there is an increase in the year 2017. Yet, the FDI inflows in Latin America and the Caribbean fail to maintain the growth by decreased 6% to US$147 billion in the year 2018. In the year 2018, South America experienced a decline in FDI inflow; this was due to the reduction of FDI inflows to Brazil and Colombia. Nonetheless, the FDI inflows to Central America managed to remain stable. Furthermore, the FDI inflows to transition economies continued with its downward trend after the year 2017.

**Governance Indicators**

Since the year 2000, the international research and development community has worked hard to assess and measure the quality of governance in countries around the world. Measuring the quality of governance is essentially a controversial political activity. Therefore, there is a difference between external assessment, peer evaluation, and self-assessment. Examples of external assessments are donor evaluations or comparative indices provided by international non-governmental organisations (NGOs). Meanwhile, the case of peer review is the African peer review mechanism. Besides, the examples of self-assessments are state-led assessments led by governments, civil society, researchers or other national-level stakeholders.

Governance includes the traditions and institutions on which a country exercise its power. The World Bank describes governance as the manner in which authority is implemented in the management of a nation’s economy and social resources for national development. Governance includes the process of government selecting, monitoring, and replacing; the government’s ability to effectively formulate and implement sound policies; and respect for citizens and the state for the institutions that manage their economic and social interactions in the
market. According to the World Bank’s Worldwide Governance Indicators (WGI) report, there are six main aspects of governance in more than 200 countries and territories from the year 1996 to 2018, including voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, the rule of law, and control of corruption.

Besides, governance indicators able to assist in further empirical research of governance by providing the advocacy tools for policy reform and monitoring for activists and reformers worldwide. Meanwhile, as generally known, better governance framework will have a positive impact on development by encouraging investment. Therefore, a better quality of institution can attract foreign direct investments. On the contrary, lack of transparency in a country would lead to corruption, which indicates a lack of good governance. Indeed, multinational companies have been seeking investment that is conducive to the institutional environment. Additionally, foreign investors tend to be characterised by transparent institutional frameworks to invest in host countries.

![Map of Voice and Accountability Percentile Range, 2018](image)

*Figure 1: Voice and Accountability Percentile Range, 2018 (source: World Bank Indicators Database)*

Figure 1 shows the percentile range of voice and accountability of countries around the world in the year 2018. Voice and accountability could be defined as the view of the democracy of the country. There are several countries scores higher in voice and accountability at the range between 90th and 100th at the year 2018, such as Greenland, Canada, Iceland, Australia, New Zealand, United Kingdom, Norway, and Sweden. The United States reached the range between 75th and 90th of voice and accountability in the year 2018. On the other hand, there are several countries which are very mile practice on democracy which are China, United Arab Emirates, Libya and more. These countries meet the range of 0 to 10th of voice and accountability in the year 2018. Last, based on the record from the World Bank Governance Indicators database, Malaysia achieved at the range of 25th to 50th of voice and accountability at the year 2018.

The discussion on the relationship between political phenomena and foreign direct investment remains interesting, at
least among the academicians. The prior studies of FDI inflows are usually included political indices as the studies of explanatory variables. Transparency is always one of the indicators which will affect foreign investor’s decision while they are planning for foreign investment in those host countries. Investors’ confidence is higher if the government of the host country is transparent. Various studies find that corruption will bring significant negative impact to FDI inflow (Kenisarim & Andrews-Speed, 2008; Quazi et al., 2014; Saidi et al., 2013). A study done by Soumaré, Gohou Kouadio (2016) reports that corruption hurts FDI inflow in China. But, Bannaga et al. (2013) discover that bribery does not relate to the FDI inflows. Meanwhile, some studies argue that democracy has no impact on FDI inflows (Adeniyi et al., 2014; Mengistu & Adhikary, 2011).

These findings raise a question: are countries with better institutional quality attract more FDI? If we refer to the World Investment Report (2018), the developing countries have attracted more FDI inflows than those developed countries in the past decade (the year 2008 – the year 2017). Besides, those developed countries shared a decreasing pattern in FDI inflows. These developed countries are typically assumed to have better governance as compared to the developing countries.

Thus, this study aims to investigate the role of the governance system in attracting FDI inflows. The organisation of this paper is as follows: section 2 presents a review of the literature on the relationship between FDI and governance. Next, this paper discusses the methodology used in this study.

**Literature Review**

Recognising that FDI inflows as a critical factor for economic growth and an essential tool for bringing technology to recipient countries, it has received considerable attention from various researchers. According to Gangi Abdulrazak (2012), we can categorise the literature on FDI inflows into three main groups. The first group investigates the effect of FDI on macroeconomic indicators, such as economic growth, exchange rate, rates of inflation, the balance of payments and rates of unemployment. The second group examines the impact of FDI on different factors such as technology transfer to recipient countries, governance method by the national firm and labour skill and productivities in hosting countries. And lastly, the third group focus on the determinants of FDI and the main driving forces for its flows to different countries such as GDP growth, lending interest rate, the openness of the nation, trading and other variables.

Narayanamurthy, Sridharan, Perumal, Rao, and Sekhara (2010) studies the determinants of FDI inflows in BRICS countries. They find that economic development and stability, the value of a currency, and trade openness are the significant determinants of FDI inflows. Gossel (2018) claims that democracy and corruption are the significant determinants of FDI inflows. Studies like Benhamoun and Lehnert (2013), Bissoon (2011) and Soumare’ and Tchana (2016) also make a similar conclusion that supports the finding of Gossel (2018).

Based on the finding of Li and Filer (2007), they state that FDI is quite sensitive to the prudential regulations and law and efficiencies of institutional. If the law and regulations are effective and efficient in protecting the investors’ property, then the country able to attract more FDI (Mengistu & Adhikary, 2011). Mengistu and Adhikary (2011) explain that a more complicated political arrangement along with an accountable authority system that institutionalises the rule of law could be security for sufficient and stable property rights. In turn, it is a factor to attract foreign investors making a long-term investment in the host country.

Furthermore, based on the research of King and Levine (1993), FDI is sensitive
to the transaction cost of investment, which means that foreign capital tends to flow to a country where investors can obtain sufficient financial benefits from their investment.

Voice and accountability (VA) is the extent to which a nation’s citizens have the authority to participate in selecting the nation’s government, freedom of association, freedom of voice out and free media. Several studies prove that voice and accountability has a significant impact on the inflows of FDI from 1994 to 2007 (Bissoon, 2011; Soumaré et al., 2016; Soumaré & Tchana, 2015). However, there is some researcher proved that there is no relationship between VA and FDI inflows. Using data from 15 Asian countries from the year 1996 to 2007, Mengistu and Adhikary (2011) find that VA has no impact on FDI inflows. Similarly, Ajide, Adeniyi and Raheem (2014) also draw the same conclusion that there is no relationship between VA and FDI inflow. They use the two robustness tests to examine sample data of 27 sub-Saharan African economies between the year 2002 and the year 2010.

Political stability and absence of violence (PSV) measures the possibility of a government will be destabilised or overthrown by unconstitutional or intention of violence. Shah and Afridi (2015) suggest that political stability implies the degree of government stability. It identifies the possibility of the government to dissolve prematurely due to political unrest (Shah & Afridi, 2015). Multinational companies prefer to have stable and yet enterprise-friendly policies that can support international business and investment (Shah & Afridi, 2015). Most of the studies conclude that there is a significant positive relationship between PSV and inflow of FDI (Bissoon, 2011; Fazio & Chiara Talamo, 2008; Sabir et al., 2019; Soumaré et al., 2016; Soumaré & Tchana, 2015). In contrast to the previous empirical results, PSV has a significant negative effect on China’s FDI inflows (Mengistu & Adhikary, 2011).

Moreover, government effectiveness (GE) measures the public services quality, civil services quality and the level of its stand from the pressure from politics, the policy formulation and implementation quality, and the reliability of the commitment from the government in those policies. A government is competent if it provides civilians with the highest quality services and frees them from political pressure in their lives (Shah & Afridi, 2015). Effective government can better promote the operation of multinational companies. Overseas investors favour consistent government policy because it can avoid frequent and accidental repetitions, thus allowing them to make appropriate budget allocations (Shah & Afridi, 2015). Shah and Afridi (2015) emphasise that a stable government would able to guarantee the continuation of policies. Although several studies conclude that government effectiveness has a significant impact on the inflow of FDI (see Adeleke, 2014; Adeniyi et al., 2014; Kayalvizhi and Thenmozhi, 2018), Saidi et al. (2013) do not find a significant relationship between governance effectiveness and FDI inflows. The study employs a fixed-effects model to estimate a set of panel data that include 20 developing countries between the year 1998 and 2011. Besides, Soumare’ and Tchana (2015) discover a positive relationship between GE and FDI inflows in 29 emerging markets within the period of 1994 to 2006. They also find that GE negatively correlated to FDI inflows in China within the same period.

Shah and Afridi (2015) define regulatory quality (RQ) as the government’s ability to formulate and implement reliable and consistent regulatory policies. These government regulations help to enhance the development of the government and the private sector, and also show how friendly overseas investors are to the market.
According to Bissoon (2011), the regulatory quality (RQ) has a significant positive impact on FDI inflows. Several other studies, for instance, Kayalvizhi and Thenmozhi (2017), Masron and Nor (2013), Saidi et al. (2013) also support the findings from Bissoon (2011). Nevertheless, Mengistu and Adhikary (2011), and Gangi and Abdulrazak (2015) argue that RQ does not correlate significantly to FDI.

The rule of law (RL) is the perception of the trust and compliance of agents with social norms, especially the quality of contract execution, property rights, police and courts, and the possibility of the occurrence of crime and violence (Shah & Afridi, 2015). On the one hand, several studies use general least squares regression method find a positive relationship between the rule of law FDI inflows. These studies include Bissoon (2011), Soumare’ and Tchana (2015), and Mengista and Adhikary (2011). On the other hand, studies that use fixed- and random-effect models also obtain similar results (Adegoke Ibrahim Adeleke, 2014; Adeoye, 2011; Kayalvizhi & Thenmozhi, 2018; Masron & Nor, 2013; Shah & Afridi, 2015). Interestingly, studies like Adeniyi et al. (2014), Bannaga et al. (2013) and Sabir et al. (2013) conclude that there is no relationship between the rule of law and FDI inflows although using the same methods.

Control of Corruption (CC) captures the awareness of the extent to which public power is exercised for private gain, including small-scale and severe forms of corruption, including the state by elites and private interest. Control of Corruption (CC) shows the extent of corruption prevalence in bureaucracy and their ability to get kickbacks through the exploitation of their position. According to Shah and Afridi (2015), multinational companies dislike the widespread corruption and red tape on bureaucratic behaviour. Red tape can be defined as the regulations or conformity to formal rules/standards which are claimed to be excessive, rigid or redundant, or to bureaucracy claimed to hinder or prevent action or decision-making. Saidi et al. (2013) and Rahim et al. (2014) find a significant relationship between CC and FDI inflows. The latter investigates the effect of governance effectiveness and control of corruption on FDI inflows in Africa with the sample of 53 countries from the year 1995 to the year 2012 by using a system generalised method of moments (GMM). On the other hand, Soumaré et al. (2016) conclude that the control of corruption (CC) has a significant positive impact on FDI inflows in most of the countries, except for China.

This study attempts to fill in the literature gap by using a larger sample size that includes almost all countries in the world. Besides, this study uses more recent data (covers year 2008 to 2017) for the governance indicators.

Methodology

This study uses a set of panel data that include 114 countries from the year 2008 to 2017 in the analysis.

This study employs the following model to examine the effect of governance on FDI inflows:

\[
FDI_{nt} = \beta_0 + \beta_1 Y_{nt} + \beta_2 i_{nt} + \beta_3 U_{nt} + \beta_4 G_{nt} + \varepsilon
\]  
(Equation 1)

Where,
- \( N \) = countries
- \( t \) = year
- \( FDI_{nt} \) : FDI Inflows
- \( Y_{nt} \) : Economic growth
- \( i_{nt} \) : Interest rate
- \( U_{nt} \) : Unemployment rate
- \( G_{nt} \) : Governance Indicators
- \( \varepsilon \) : Error term

The study uses all six indicators from the Worldwide Governance Indicators Report (2018), namely voice and accountability (VA), political stability and absence of violence (PSV), government effectiveness (GE), regulatory quality (RQ),
the rule of law (RL), and control of corruption (CC) as a proxy of governance. These indicators carry a score between -2.5 (poorest) and 2.5 (best). Meanwhile, the study uses the FDI inflow rate as measure of FDI inflows in percentage, real gross domestic product growth rate in percentage from the year 2008 to the year 2017 as a proxy of economic growth, and lastly the lending rate as a proxy to the interest rate. As for all other variables, this study obtains these data from World Development Indicator (WDI), the World Bank.

The study performs pooled ordinary least squares (pooled OLS), the fixed-effect model and random-effect model to estimate (Equation 1 mentioned above).

**Results**

Firstly, the study conducts relevant tests to determine the appropriate model for the analysis. The results are shown in Table 1.

### Table 1: Determination of Appropriate Model

<table>
<thead>
<tr>
<th>Models</th>
<th>Poolability test</th>
<th>Hausman test</th>
<th>Breush-Pagan Lagrange Multiplier test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cross-Section/Period Chi-square</td>
<td>P-value</td>
<td>Chi-square Statistic</td>
</tr>
<tr>
<td>Model 4.1.1</td>
<td>884.267237</td>
<td>0.0000</td>
<td>7.817246</td>
</tr>
<tr>
<td>Model 4.1.2</td>
<td>895.125562</td>
<td>0.0000</td>
<td>8.343054</td>
</tr>
<tr>
<td>Model 4.1.3</td>
<td>880.735925</td>
<td>0.0000</td>
<td>6.953151</td>
</tr>
<tr>
<td>Model 4.1.4</td>
<td>896.073474</td>
<td>0.0000</td>
<td>8.344555</td>
</tr>
<tr>
<td>Model 4.1.5</td>
<td>885.447799</td>
<td>0.0000</td>
<td>7.059657</td>
</tr>
<tr>
<td>Model 4.1.6</td>
<td>901.061518</td>
<td>0.0000</td>
<td>9.294874</td>
</tr>
</tbody>
</table>

Based on the three tests, which are Poolability test, Hausman Test and Breush-Pagan Lagrange Multiplier test above, we can conclude that the random effect model (REM) is preferable compared to the other two models. Therefore, this study will adopt the random effect model (REM) for analysis.

As the study uses six different indicators to measure the level of governance, these indicators enter the (Equation 1 separately for regression as shown below:

\[
FDI_t = \beta_0 + \beta_1 GDP_t + \beta_2 LR_t + \beta_3 UR_t + \beta_4 CC_t + \varepsilon \\
\text{(Equation 4.1.1)}
\]

\[
FDI_t = \beta_0 + \beta_1 GDP_t + \beta_2 LR_t + \beta_3 UR_t + \beta_4 GE_t + \varepsilon \\
\text{(Equation 4.1.2)}
\]

\[
FDI_t = \beta_0 + \beta_1 GDP_t + \beta_2 LR_t + \beta_3 UR_t + \beta_4 PSV_t + \varepsilon \\
\text{(Equation 4.1.3)}
\]

\[
FDI_t = \beta_0 + \beta_1 GDP_t + \beta_2 LR_t + \beta_3 UR_t + \beta_4 RL + \varepsilon \\
\text{(Equation 4.1.4)}
\]

\[
FDI_t = \beta_0 + \beta_1 GDP_t + \beta_2 LR_t + \beta_3 UR_t + \beta_4 QA_t + \varepsilon \\
\text{(Equation 4.1.5)}
\]
Table 2: Estimation Results

<table>
<thead>
<tr>
<th>Models</th>
<th>Variables</th>
<th>Coefficient</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1.1</td>
<td>Constant</td>
<td>3.520580</td>
<td>0.0005</td>
</tr>
<tr>
<td></td>
<td>Gross Domestic Product (GDP)</td>
<td>0.243748</td>
<td>0.0000***</td>
</tr>
<tr>
<td></td>
<td>Lending Interest Rate (LR)</td>
<td>0.093590</td>
<td>0.0617*</td>
</tr>
<tr>
<td></td>
<td>Unemployment Rate (UR)</td>
<td>-0.038316</td>
<td>0.6131</td>
</tr>
<tr>
<td></td>
<td>Control of Corruption (CC)</td>
<td>1.245995</td>
<td>0.0347**</td>
</tr>
<tr>
<td>4.1.2</td>
<td>Constant</td>
<td>3.500384</td>
<td>0.0006</td>
</tr>
<tr>
<td></td>
<td>Gross Domestic Product (GDP)</td>
<td>0.241730</td>
<td>0.0000***</td>
</tr>
<tr>
<td></td>
<td>Lending Interest Rate (LR)</td>
<td>0.084448</td>
<td>0.0960*</td>
</tr>
<tr>
<td></td>
<td>Unemployment Rate (UR)</td>
<td>-0.033596</td>
<td>0.6593</td>
</tr>
<tr>
<td></td>
<td>Government Effectiveness (GE)</td>
<td>0.778835</td>
<td>0.1987</td>
</tr>
<tr>
<td>4.1.3</td>
<td>Constant</td>
<td>3.796288</td>
<td>0.0002</td>
</tr>
<tr>
<td></td>
<td>Gross Domestic Product (GDP)</td>
<td>0.228438</td>
<td>0.0000***</td>
</tr>
<tr>
<td></td>
<td>Lending Interest Rate (LR)</td>
<td>0.076122</td>
<td>0.1203</td>
</tr>
<tr>
<td></td>
<td>Unemployment Rate (UR)</td>
<td>-0.043313</td>
<td>0.5662</td>
</tr>
<tr>
<td></td>
<td>Political Stability and Absence of Violence (PSV)</td>
<td>1.051555</td>
<td>0.0272**</td>
</tr>
<tr>
<td>4.1.4</td>
<td>Constant</td>
<td>3.517985</td>
<td>0.0005</td>
</tr>
<tr>
<td></td>
<td>Gross Domestic Product (GDP)</td>
<td>0.241719</td>
<td>0.0000***</td>
</tr>
<tr>
<td></td>
<td>Lending Interest Rate (LR)</td>
<td>0.097281</td>
<td>0.0546*</td>
</tr>
<tr>
<td></td>
<td>Unemployment Rate (UR)</td>
<td>-0.037145</td>
<td>0.6251</td>
</tr>
<tr>
<td></td>
<td>Rule of Law (RL)</td>
<td>1.538934</td>
<td>0.0156**</td>
</tr>
<tr>
<td>4.1.5</td>
<td>Constant</td>
<td>3.335805</td>
<td>0.0010</td>
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<tr>
<td></td>
<td>Gross Domestic Product (GDP)</td>
<td>0.246788</td>
<td>0.0000***</td>
</tr>
<tr>
<td></td>
<td>Lending Interest Rate (LR)</td>
<td>0.098689</td>
<td>0.0496**</td>
</tr>
<tr>
<td></td>
<td>Unemployment Rate (UR)</td>
<td>-0.037514</td>
<td>0.6204</td>
</tr>
<tr>
<td></td>
<td>Regulatory Quality (RQ)</td>
<td>1.501771</td>
<td>0.0179**</td>
</tr>
<tr>
<td>4.1.6</td>
<td>Constant</td>
<td>3.735311</td>
<td>0.0002</td>
</tr>
<tr>
<td></td>
<td>Gross Domestic Product (GDP)</td>
<td>0.232260</td>
<td>0.0000***</td>
</tr>
<tr>
<td></td>
<td>Lending Interest Rate (LR)</td>
<td>0.063259</td>
<td>0.1986</td>
</tr>
<tr>
<td></td>
<td>Unemployment Rate (UR)</td>
<td>-0.036319</td>
<td>0.6364</td>
</tr>
<tr>
<td></td>
<td>Voice and Accountability (VA)</td>
<td>0.210977</td>
<td>0.7451</td>
</tr>
</tbody>
</table>

Note: *, **, *** represent significance level of 10%, 5%, 1% respectively

Table 2 above presents the estimated coefficients of REM. Based on the empirical results, the GDP growth rate has a significant positive effect on the inflows of FDI at the 1% significance level. In other words, when GDP increase one percent, the inflow of FDI will increase by around 0.24 per cent. The results suggest that the unemployment rate is insignificant to FDI inflows. Unlike economic growth and unemployment rate, the results are mixed for the effect of interest rate on FDI inflows. The Model 4.1.1, Model 4.1.2 and the Model 4.1.4 show that lending interest rate has a significant positive impact toward FDI inflow at a significance level of 10%. At the same time, the Model 4.1.5 presents that the lending interest rate has a significant positive impact on FDI at a significant level of 5%. However, the Model 4.1.3 and the Model 4.1.6 suggest that the lending interest rate has insignificant impacts on FDI inflow.
Furthermore, the results show that CC is positively correlated to FDI inflows. When there is an increase in one unit range of CC, the FDI inflow resulted in increasing by 1.24 percent. Moreover, GE is insignificant to the FDI inflow. Besides, PSV imposes a positive impact on FDI inflow at a significance level of 5%. This result implies that when PSV increases one unit range, the FDI inflow will increase by 1.05 per cent. Besides, the RL also results in positively significant related to FDI inflow. When there is one unit range increase in RL, the FDI inflow resulted in increased 1.538934 per cent. Apart from those, RQ also found to be positively significant related to the FDI inflow; while there is an increase of one unit range of RQ, the FDI inflow will increase 1.501771 per cent. Last, the VA has an insignificant impact on FDI inflow.

**Discussions**

Generally, corruption does bring negative impact on FDI inflow. It is because corruption includes illegal activities such as money laundering and embezzlement, which consider under table activities. Another example of corruption would be people reported inaccurate income and financial report from the production of goods and services to avoid taxes which is a must to be paid. It shows that the process might not be transparency. The foreign investors will have less confidence in a particular country if corruptions are found often (Cuervo-Cazurra, 2008). Therefore, a nation with better control of corruption is positively related to FDI inflow, where the result is exact from this study’s actual empirical results. A country with fewer corruption cases will increase the reputation of the nation as the government is strict on tackling corruption. Besides, all transactions would have standard procedures to go through. Meanwhile, it will reduce the risk for a foreign investor to make foreign investment in the host nation; therefore, the FDI inflow will increase.

Next, the table above shows the relationship between GE and FDI inflow. GE indicates how the government of one country manage its country effectively. The link shown in the empirical result is insignificant as GE could not be one key factor in affecting FDI of a nation. Although the government is good at GE and able to manage the country well, it does not mean FDI will be boosted at the same time. Some countries trade internationally is due to they need the goods and services badly as there is a shortage of products or services in their own countries. Hence, they will not mind how a foreign country is being managed. They will only focus on international trade to fulfill their needs regardless of the GE of a foreign country.

PSV plays an essential role in affecting FDI inflow. One of the effects of political instability would be lowering economic growth or causes an unstable economy situation. This situation will cause the citizens less focus on their job and have more saving as well as invest. People will easily lose their jobs during the period of the bad economy. As the problems exist, the economy is rated as poor performance, and it will affect macroeconomics. It will increase the risk of investment and reduce the willingness of the foreign investor to make a foreign investment. In the empirical result, PSV is proved to have a positive relationship with FDI inflow. In the end, FDI inflow will drop because of losing confidence from a foreign investor which resulted in a decrease in cash inflow.

Based on the empirical result, the RL is positively related to the dependent variable. A well-planned standard for the rule of law of a country is essential. As this study is focusing on FDI inflow which the transactions of goods and services are traded internationally, the RL is one crucial element to be taken into consideration. Seller and buyer should be protected by the rule of law while making international trade. Both parties would be favourable as it will reduce the risk of happening fraudulent trading. By trading in proper procedures
under rules of law, both parties will improve the confidence levels and trade in high volume due to lower risk. Hence, FDI inflow would be boosted as they are being protected.

In addition, the relationship between FDI inflow and RQ is significantly positive. RQ is defined as the quality of the regulatory system for developing new rules and also amending existing regulations to have better economic growth. Besides, the excellent quality of the regulatory regime will help the government to spend money wisely, and the source of funds might be the revenue from citizen income tax and corporate income tax. The government could spend money on giving subsidiaries for helping small and medium-sized enterprises (SMEs) to be more competitive. In future, SMEs is possible to be a listed company or multinational company to participate in international trade. Therefore, a country with a high RQ will attract more FDI inflow as more companies will involve in international trade.

Out of the six governance indicators, VA is the second governance indicators that showed an insignificant relationship with FDI inflow. VA indicates a free media which can report reliable news by neither standing on government’s side and citizen has the freedom of giving a statement as well as choosing a political party to be the government during the national election. In the situation of either high or low control on VA, it seems the FDI inflows will not be affected.

**Conclusion**

Overall, the empirical results of this study find that governance has a positive effect on FDI inflows. Among the six indicators, only voice and accountability and government effectiveness do not have a significant relationship with FDI inflows. The findings imply that a clean and trustworthy government assure the expected returns of the investors, and thus, attracts more FDI inflows.

**Limitation and Recommendation**

There are a few limitations in this study. The first limitation of this study is the lack of available data. Some of the developing economies seem to have empty data of governance indicators. There are 189 countries in the World Bank database; however, this study only managed to collect complete data of 114 countries.

Meanwhile, the six comprehensive governance indicator adopted from the World Bank database can be used as tools for conducting extensive cross-country comparisons and evaluating broad trends over time. However, they are often too passivated to be used when formulating specific governance reforms within a particular country. Such improvements and their progress assessment require more detailed, country-specific diagnostic data as a reference, which can determine the relevant restrictions on governance in specific country situations.

Lastly, this study only includes ten years (2008 – 2017) as time-series data. Thus, the statement which concluded in this study does not seem able to provide extended run estimation for the economists or policymaker for the usage of long term investigation or making long term policy decision respectively.

Therefore, there are a few suggestions for future researchers to overcome the limitations of this study. Future research can use the categorised individual indicators apart from the integrated worldwide governance indicators score to gain a deeper understanding of the specific areas. Future research can expand the period of the sample to investigate the long-run impact of the governance on the inflow of FDI.
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