

**UNDERSTANDING UNIVERSITY STUDENT'S DECISION TO
USE OFO BIKE SHARING SERVICES IN BANGKOK**



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USE OFO BIKE SHARING SERVICES IN BANGKOK**

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UNDERSTANDING UNIVERSITY STUDENT'S DECISION TO USE OFO BIKE SHARING SERVICES IN BANGKOK

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ABSTRACT

With the development of science and technology, the sharing economy is developing rapidly in recent years. The ofo company was established first pile-free bike sharing platform in 2014 and launched the service in Bangkok last August. Although the concept of sharing economy is still new to the society, sharing business in the field of transportation is growing dramatically. However, the research on sharing business are relative rare. Therefore, take an example of university in Bangkok as research sampling area to conduct the research in ofo bike sharing service users' decisions to use which has important theoretical significance.

This paper aims to research on ofo bike sharing service user's decision to use and behavior based on the developed theory. First of all, the explanation of sharing economy and self-determination theory is accomplished in literature review. Secondly, the influential factors are formed up based on the literature review and the research model is built. Furthermore, all research factors are used to form interview question in order to collect the primary data. Finally, the results shows the determinants to make decision of using ofo bike sharing services are highly depend on personal competency, autonomy, enjoyment and economical benefit in general. Moreover, it is of great significance that to understand the motivation factors of consumer to use ofo bike sharing service for promote sustainable development.

KEY WORDS: Ofo Bike Sharing/ Decision to Use/ Self-Determination Theory

22 pages

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CHAPTER I

INTRODUCTION

With the development of science and technology, this stimulated the production of some manufacturer, especially in the iron or steel industry, but it brought obstacles to control over-capacity issue in the society. Except the implementation of government policy to curb the problem, the other way increases the demand of goods which is meant the innovative method to consume the surplus capacity. Therefore, the economic activity exists that allows people to share the resource freely or under low cost – so called sharing economy, the term will discuss more deeply in the next chapter. The sharing economy has boosted the startup company to generating the innovative product/service idea in different industry. Ernst & Young LLP (2015) claimed that the resource utilization, social mobility through new vacancy of careers, ease to operate at personal convenience and skill maturation are the substantial benefits.

Sharing economy has been rising dramatically in many Asian Countries, the main purpose of the sharing and leasing industry is utilizing the action of resource owner share idle items in the internet, endowing a new economic value to the resource while the resource requester get a chances to use it in a short amount of period at lower spends without bear all the costs. The perspective of sharing was encouraging people to explore the different types of business model towards many industries in the society, such as the real estate leasing business – Airbnb, the car sharing application – Uber and Grab in Thailand, sharing power bank in China and sharing bicycle – ofo which was established in 2014 and based in Beijing, China. According to the latest report from THE NATION, ofo has officially launched its bike-sharing services in Bangkok, there were more than 500 bikes have already been placed into use for the campus trial (A, 2017).

Ofo company as the first corporate around the world that promotes “station-free” bike sharing platform on the Internet. Ofo has launched more than 2 billion bike rides to more than 100 million users since its promote two years ago, consequently, it

was linked 6.5 million bikes to riders in 150 cities over five countries (Russell, 2017). Users just need to scan the QR code on the ofo bicycle on the mobile application to unlock the bicycle, and the bicycle with carrying GPS system then be used wherever in need.

The researcher believes that there are some reasons for the company like ofo to choose Thailand as their first move of expand the business in Asia Pacific. According to the Nielsen report (2014), they demonstrated the top countries likely to share with others all over the world (see Figure 1.1). It is obvious to see that Thailand was ranked in the middle place among those countries which is meant the potential opportunity to develop the sharing economy in the country.

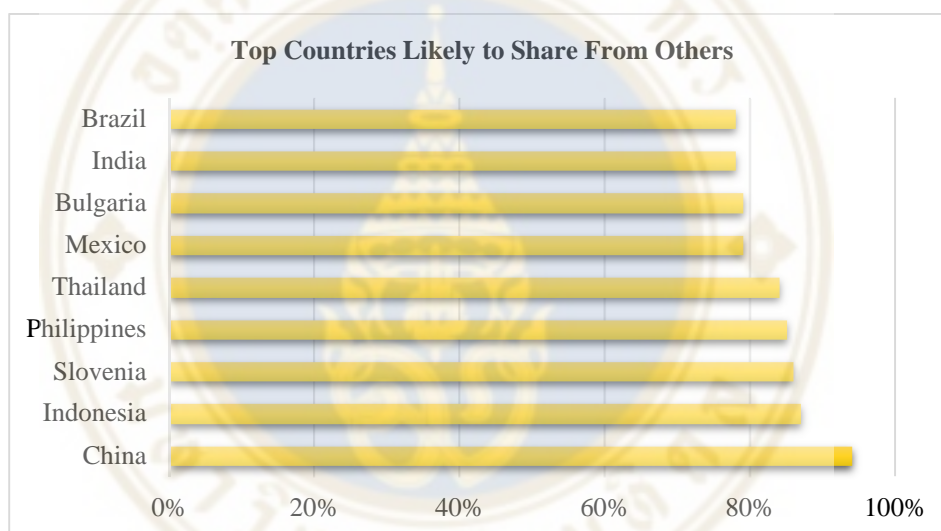


Figure 1.1 Top countries likely to share from others

Although the sharing economy has grown significantly, the sharing bicycle service still less common for many people who living in prosperous areas in Bangkok, moreover, the research on the users' psychology and behavior patterns under shared economic business model and sharing economy is relatively rare. Therefore, the research will conduct to understand the factors which influence college student's intention to use sharing bike service and behavior patterns with ofo bike sharing service as the research object.

This paper aims to understand college student's intention and willingness to use ofo bike sharing service on campus, to reflect and review the current situation

and development prospects of sharing bike service. Furthermore, this study will investigate the implication of profit model of sharing bike system in order to suggest a further improvement for relevant businesses. Therefore, the research problem of the present study is including three main questions: a) Why university student choose to use ofo bike sharing service on campus? And how does the university student's preference of using ofo bike sharing reflect on their expression of competence, autonomy, and relatedness? b) Would university student continue to use ofo bike sharing service in long run perspective? The questions show clear direction to explore more under the topic.



CHAPTER II

LITERATURE REVIEW

2.1 Definition of Sharing Economy

Sharing economy is not a particularly new phenomenon, essentially, the sharing can be explained as two or more individuals may obtain the welfare (or monetary values) that from the result of possessing a staff instead of recognizing ownership problem, sharing defines something that anybody can share to use (Belk, 2007). Thus, the nature of sharing economy is not about the transactions that encompass the traditional understanding of the word “sharing”. Belk (2014) also emphasize the essentials of sharing economy better characterized as “pseudo-sharing (practices masquerading as sharing)”. Therefore, the definition of sharing economy should be more concise and clearly to understand. The growth of the sharing economy – one of the publication from Ernst & Young LLP (2015) has clarified the sharing economy as follow:

“The sharing economy is a socioeconomic ecosystem established around the sharing of human and physical resources. It includes the shared creative activity, production, distribution, trade and use of goods and services by different people and organizations.”

Rauch et al. (2015) also demonstrated the forms of sharing business as below:

1. A short-term basis services that rent to customers, often on, or
2. A peer-to-peer platforms linking providers and users for the exchange, purchase, or renting of goods and services.

Short-term renting the products patently beneficial for those people cannot afford to own them or bear the cost of repair the goods. What’s more, most of profit purpose sharing businesses also were defined as “collaborative consumption” (Botsman and Rogers, 2010). The ofo bike sharing services is kind if short-term renting platform, essentially, it is one a bike leasing businesses but based on the “share” concept.

2.2 Theoretical Approach

The self-determination theory is figure out based on the study from Edward Deci and Richard Ryan (1985). The main tenets of the theory are that intrinsic motivation determinants (competence, autonomy and relatedness) will influence personal behavior (See Figure 2.1). According to Deci and Ryan (1985) was found that the intrinsic motivation is gained from the notion of autonomy without control by other feelings. Self-determination theory (Deci & Ryan, 1985) claimed that motivations can be divided into intrinsic and extrinsic. The intrinsic value related to the motivation determinants, however, the extrinsic motivations are connecting to the pressures from outside. In this paper, the research has defined the intrinsic activities as competence, autonomy, relatedness, enjoyment and sustainability, also the extrinsic activities as economic benefit.

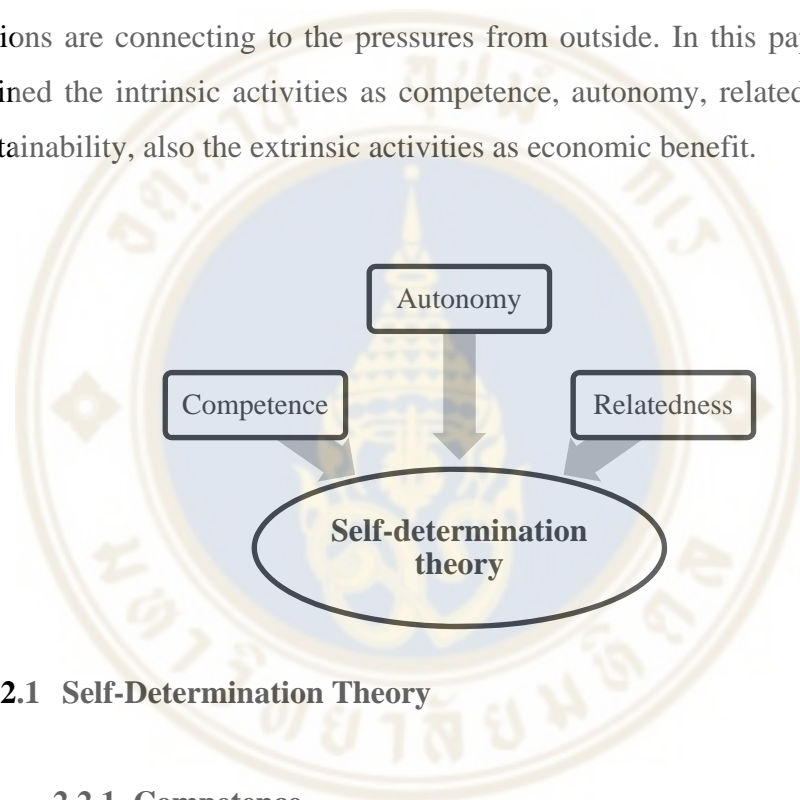


Figure 2.1 Self-Determination Theory

2.2.1 Competence

The competence shows the ability of human to control and experience the outcome of the activity (White, 1959). People who meet the basic need of competence is more probable to feel excited, intrigued, self-assured in the activity they are involved in (Deci & Ryan, 2000). In other words, the more people feel confident with contribution to achieve the goal, the higher level of competence they have.

2.2.2 Autonomy

The fulfillment of autonomy is related to the notion that personal choice of activities is paralleled their intrinsic interests, and is highly clarified of their behavior

(Deci & Ryan 1985). Deci and Ryan (2000) mentioned that the degree of autonomy will increase when one's senses that their thoughts are evaluated, they control the capacity to deal with the problem and manage it by themselves. Otherwise, they will grow less interested in the activities if the initial motivated determinants are basically coming from external rewards.

2.2.3 Relatedness

The concept of relatedness is the individual who desires to communicate, will connect to, and express caring for others (Baumeister & leary, 1995). Relatedness are suggested to be more distally associated with the internalization of the behavior, as it represents an external construct (Ryan & Deci, 1985). What's more, it is possible for someone to absorb in an activity without connection to another person (Deci & Ryan, 2000). In this research paper, the relatedness were conceptualized as supported in the community and the environment. The mindset of undermines feeling of connection will clarify to lessen feelings of relatedness.

2.2.4 Sustainability

Sharing business is basically required the participants to be highly ecologically sustained (Prothero et al., 2011). Although the motivation determinants like sustainability is more consider when discuss the political or environmental issue, the sustainability at business development perspective will conceptualize as intrinsic motivations. Recent developments display that sharing business platforms are leveraged to support a sustainable marketplace (Phipps et al., 2013) which "optimizes the environmental, societal, and economic outcomes of pulmonary tuberculosis in order to satisfy the demands of both current and future generations" (Luchs et al., 2011, p. 2). Furthermore, as consider the purpose of the product design of ofo bike, the sustainable campus transportation is an important driver to investigate in the real life.

2.2.5 Enjoyment

The information system as one example of sharing-related activities, the enjoyment has been take accounted for an important factor in those activities. (Van der Heijden, 2004). Another study claimed that enjoyment is a major factor, accompanied

by plenty and useful numbers on the role of social network services. (Lin & Lu, 2011). Enjoyment as a positive motivation factor will influence one's behavior positively, imagine if an individual find a job that he/she don't like. Therefore, the researcher includes enjoyment as the intrinsic motivation to theoretical account to investigate the intentions towards using the bike sharing service.

2.2.6 Economic Benefits

As discussed in the definition part, sharing business—socioeconomic ecosystem established around the sharing of human and physical resources—is about share the resources to reduce waste (Ernst & Young LLP, 2015). Hence, participation and sharing can also be a rational and utility maximization behavior, in which users replace exclusive ownership of commodities with lower cost options in sharing business services. Furthermore, sharing is an incentive to save economic resources (Luchs et al., 2011). Economic benefits are considered taking account in extrinsic motivation factor in this research.

The chart below shows the research framework and the research direction was addressed through six motivation determinants, including five intrinsic motivation factors and one extrinsic motivation factor.

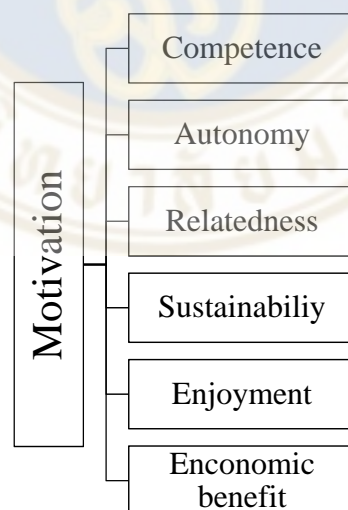


Figure 2.2 Research framework

CHAPTER III

RESEARCH METHODOLOGY

3.1 Primary Data Collection Method

The research conducted by using qualitative method which involves the combination of relevant literature and interview are support to draw a findings regarding to the research objectives – understand the college student’s intention to using ofo bike sharing service on campus and explore the develop prospective of sharing business in the future. Qualitative research has multi-purpose in focus an elaboration and realistic approach to its subject context.

According to the objectives described above, the semi-structured interview is the method for gathering effective outcome from respondents. The interview question is generated out according to the research framework.

3.2 Sampling Criteria

The respondents need to meet the following criteria to be qualified in the sample. They should:

1. Be willing to answer the questions;
2. Be a college student;
3. Be of either sex or any race;
4. Be familiar with ofo bike sharing service.

3.3 Respondents

Before choosing the participants, there will be a selection of university to conduct the research. The only requirement for select a university that is the ofo bike has been placed to use for campus trail. Therefore, researcher take one of the universities in Bangkok as example which is Thammasat University. Furthermore, the total duration to conduct the interview which is less than 10 minutes.

For the purpose of getting the true thought from the respondents, there are 12 students in total were chosen to answer the question orally. All of them are the student who is currently studying in university, 5 of them are male from engineering faculty and the rest are female from different faculty. However, there are only 6 of the participants has interest to cooperate in the research, the others provides a low quality answer because of the language barriers and time constraints. In this study, the research will collect the effective information for all of participants as much detail as possible, thus, the effective answer depends on the relevance of the question, whereas only focus on those people who has a high degree of completed the question.

Table 3.1 Interview list

Name	Major	Year	Length of use (of)	Frequency of use (of)	Car owner	Gender
Pop	Engineering	2	2 Months	Rarely	Yes	Male
Iff	Humanities	1	3 Months	Sometimes	No	Female
Pla	Engineering	3	2 Months	Twice a week	Yes	Male
Chit	Engineering	2	5 Months	Every day	No	Male
Kid	Engineering	2	6 Months	Every day	No	Male
Jean	International College	1	2 Months	Two times	Yes	Female
Fern	Humanities	2	6 Months	Few times	Yes	Female
Jan	Humanities	4	6 Months	Every day	No	Female
Thin	Humanities	3	5 Months	Every day	No	Female
Ham	Engineering	3	6 Months	Every day	No	Male

Table 3.1 Interview list (cont.)

Name	Major	Year	Length of use (of)	Frequency of use (of)	Car owner	Gender
Kelang	International College	2	5 Months	Every day	No	Female
Carlen	International College	1	2 Months	Twice a week	No	Female

3.4 Interview Question

The research questions were generated with regard to the previous literature and comprehensively addressed through 11 open-ended questions. The question framework just a structure to predict the effective of outcome, although I have categorized the questions, there are some concepts overlap among those questions. For example, the question like “Do you have any friend still don’t use it?” is also reflected on the sustainability to some extent. The respondents has authority to skip or refuse to answer the question.

Table 3.2 Interview questions

Theoretical Topic	Question
Competence	Anything you don’t like the service or any obstacles when you use it?
	What’s the advantage of using ofo bike for yourself?
	Do you have any friends still don’t use it? Why?
Autonomy	What’s the reason persuades you try ofo bike at the first time?
	Why you decide to use ofo rather than the other transportation?
	Do you think you use ofo because of the others also using it?
Relatedness	Do you think you are supported by the university? Or do you feel any help from the community?
Sustainability	Will you continue to use it after you find the obstacles?
	Would you like to ride ofo bike outside the campus in the near future? Why?
Enjoyment	How you feel when you using the bike?
Economic Benefits	If the app start to charge the service fee, will you still continue to use it?

CHAPTER IV

FINDINGS ANALYSIS

The key objective of this study was to qualitatively understand the motivational factors regarding to university student's decision to use ofo bike sharing service on campus, in terms of the SDT framework (Deci & Ryan, 1985). In other words, the direction of this research was conducted through the questions: a) Why university student choose to use ofo bike sharing service on campus? And how does the university student's preference of using ofo bike reflect on their expression of competence, autonomy, and relatedness? b) Would university student continue to use ofo bike sharing service in long run perspective?

The findings of the research basically cover the following points: a) the intention of college student to using ofo bike was influenced by the fulfillment of the basic needs; b) the fulfillment of student's basic needs was directly influence when they choose the transportation on campus; c) the competence was found that more reflect student's intention to use ofo bike; d) autonomy was more involved in the process when student make a decision of choose a transportation on campus; e) the relatedness was discovered when student consider the community environment and benefit for themselves in long run perspective; f) the sustainability of contribute to the service which more related to the economic benefit and student's intention to use in the future. This chapter will indicate the overall findings regarding to the research questions and analysis the effects refer to the relevant literature. Moreover, the findings will support to illustrate the recommendations of applying the results as well as the limitations of the research.

4.1 Competence & Autonomy

The answers of the interview show that the high degree of personal competence and autonomy of using the ofo bike. For the competence, all of the respondents were confident to understand the outcomes and master the skill of using the service. A number of students revealed that they feel convenient and easy to use the service, "It's easy to find one, you know the ofo bike is everywhere", "sometimes the locking system went wrong, but not a problem for me", "save time", "don't worry to return it". Moreover, the high competence was reflected upon the question "Why you decide to use ofo rather than other transportation?" and one of the student answer it like "the bicycle is more flexible and controllable compares to motorcycle", "I don't have a car and motorcycle".

The researcher found that there is a relationship exist between competence and autonomy, to be honest, the competence and autonomy are the most influential of all three needs on self-determined behavior, whereas relatedness is assumed to play a more distal role (Deci & Ryan, 2000). As I mentioned before, student using the ofo bike simply because it's convenient according to the number of bikes and widely distribution on the campus, the student has high autonomy when they choose to use ofo bike, "it's faster than walking", "I have a car, but if I want to go the hospital and it's hard to find a parking lot", "good for short distance riding", "the station bicycle is not convenient compare to ofo bike".

When ask the question about the decision made depends on the others, most of them were denied that the question and displayed their independence personality, "the main reason is cheap", "I'm quite rely on it because I have to go to study", "it's not because everyone to try it". The students also show their interest to ride the ofo bike outside the campus, whilst complaining the ofo bike locking system and worrying the safety issue outside the university.

From my observation, the student tends to be more rely on the service, one of the students mentioned about the maintenance of the bike and he don't concern about the loss of bike and repair the broken bicycle. The higher competence allows people to know more benefit of using different transportation, the level of autonomy depends on the range of choice and the level of competence towards those choices.

4.2 Relatedness

The result shows low degree of relatedness of using ofo bike sharing service, student chooses the sharing transportation like ofo bike sharing service if they have to go to study or ride a bike instead of walking. To some extent, they have a sense of belonging to the community of university, however, it doesn't show in this kind of activities, only one of the participant describes how using ofo bike reflect the benefit to connect with campus life, "the more I ride and I get to see the campus more and it's a good chance to exercise with bicycling". Three of the respondents showing there is no relationship between using ofo bike and support to the community, two of them recognized the relationship and gave the answer like using ofo bike is "eco-friendly" or "less traffic jam" action which will benefit to the environment of community, the rest of the interviewees were admitted this standpoint but still not provide any supportive reason for it.

4.3 Sustainability

Student shows low degree of sustainability to use ofo bike. Eckhardt et al. (2010) found there are three main causes why people will not to engage sustainably: economic rationalizations, institutional dependencies, and developmental realism. From the results, most of student concerns about the university's rule and the condition of construction outside the campus while they face the question "Would you like to ride ofo bike outside the campus?" Only one participant really think about the possibility to use ofo bike for a long run and she mentioned about the issue of service itself, "the bicycle locking system need to be finding a way to make it more profitable". The result shows current students doesn't pay attention to use ofo bike sharing in long term perspective because of the dependence of regulation of universities.

Moreover, users are not provides strong purposes to use the service, say, most students revealed that they ride ofo bikes only because it's a high cost-performance transportation to go to study. Due to high autonomy, there are variety substitutable transportation on campus for students to choose, such as shuttle school bus, docking station bicycle, car or motorbike.

Furthermore, the ofo company made a commitment of sustainable transportation on campus which is not matched the consumer's aspiration. The ofo company (2018) claimed that every mile traveled reducing carbon emissions by 0.77 lbs. The fact is only few of students were mentioned about the bike could help to do exercise, most students will use the service under specific occasion, say, go to study or travel in short distance on the campus.

4.4 Enjoyment

The enjoyment of using ofo bike makes sense when the conditions of bicycle are good enough for people to ride. According to the answer from respondents, students revealed that the condition of ofo bike need to improve such as add the basket in front of the bike. I would conclude that the outcome illustrated high level of enjoyment of riding ofo bike on campus. People would spend time to find a "comfortable" bike instead of walking or stop using the ofo bike sharing service. As one of the answer of question "Do you think you are supported by the community?" said "it's a good chance to exercise with bicycling", which shows of student enthusiasm of motion as bicycling with ofo bike sharing service on campus. This circumstance might influence the sustainability of using bike sharing services in general.

4.5 Economic Benefit

The economic benefit as defined in this research also translates into save cost, which is one of the motivators for some students especially those people who facing the financial crisis. There are three aspects of saying to show how students think the ofo bike sharing service will save money for them: a) some of them perceived that the ofo bike is good enough to ride and no need to worry about the repairing cost or loss, "the staff of ofo will take care the bike" said by Kid; b) the ofo bike sharing service still operating in free month period, student will not bear the cost for it; c) it's expensive to own a car or bicycle in Thailand, but the ofo providing a high cost-performance solution to the customer.

4.6 Development prospective of ofo bike sharing service

As I mentioned the factors above, college student still has high enthusiasm towards using ofo bike sharing service on campus, they are truly assured of their aspiration to the service, nevertheless, such a factor like relatedness and sustainability, student seems unsure the effect of those motivators. The high level of competency and autonomy provides an advantage to ofo bike sharing service expand their business to other community widely. In addition, the high degree of preference to using the service which reflects on the monopoly nature of the business. Perhaps the enterprise like ofo may need to consider more on the sustainability of sharing bike service, not only on the aspect of physical condition of the bike also the profit margin because the company bears the huge cost of investment at the beginning stage. Another issue is relatedness of use the service, the ofo company (2018) state that they try helps build a sense of community in students, “dockless bikes connect your campus to the community at large, and a bike share program becomes an invaluable cultural touchpoint to foster a kinship amongst your students.” However, there is a negative results of investigate the sustainability of ofo bike sharing service, I believe is because the student treat it as a tool for transportation to study rather than a transportation could introduce to everyone, “I try to persuade my friend to use it but they don’t want to download the app” Jan said.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

The sharing economy is a hot topic in recent years, the purpose is to make more efficient use of idle resources and reduce the cost. This has greatly changed people's production and life style and it is important to promote the sharing economy. The study of understand the college student's willingness and intention in using he service helps companies to better promote and manage the service, whilst bring the inspiration for other entrepreneur.

In this paper, the researcher conducted use of combination of literature review and qualitative research to deeply explore the university student's willingness and intention to use ofo bike sharing service. The main contents of this paper include the following aspects: Chapter 1, Introduction, to introduce the background of the research, research questions, and significance of research, technical methods and research content. The research background elaborated the social background and theoretical background of the research which is the source of research question, form this to design the research framework.

The second chapter, Literature Review, to figure out the definition of sharing economy as well as the related theories. The theory apply will involve to the research methods directly, which lays a solid theoretical foundation for this study.

The third chapter, the research methodology and the sampling for interview. The interview question are proposed in this session based on the self-determination theory and related research. The particular topics and question of this study were designed for competence, relatedness, autonomy, sustainability, enjoyment and economic benefits.

In chapter four, the analysis of findings based on the outcomes of the interview. After the answer collected, the analysis will response for the research question and provides several suggestion according to the issues that discover from the results.

To sum up the findings, it's necessary to reiterate the determinants to make decision of using ofo bike sharing services are highly depend on personal competency, autonomy, enjoyment and economical benefit in general. Due to the respondents are lack sense of community (low relatedness), high autonomy, university's regulation and physical conditions of ofo bike, cause to adverse effects on use ofo bike sharing service in long run perspective.

5.2 Limitations

In this paper, the research methods of explore investigation is used in order to understand the college student's intention and willingness to use ofo bike sharing service on campus based on the theory of self-determination. There are some innovations in both the research object and the research perspective, and some new conclusions are obtained. However, due to the limitations of many factors such as time, cost, and so on, there are still some shortcomings in this paper, which are as follows:

First, although the theory of self-determination as the theoretical basis which is more concentrate on personal motivation factors, the ofo bike sharing service is a type of new business model and the research on this new sharing economy business model is relatively rare, thus, the theoretical basis involved in sharing characteristics is weak to some extent. The limitations of research on this certain type of business model is hinder to deep analysis the motivation to use ofo bike link with business profit model.

Second, in this paper, the research on college student's willingness and intention to use ofo bike sharing service is based on the intrinsic and extrinsic factors of motivation theory, in reality, there will be much more factors are still not considered, therefore, the research of each factors also have certain limitations, it's requires further follow-up and improvement.

Third, the most critical aspect of qualitative research is the collection of sample information, which is limited by the time and cost constraints, the sampling area of this research mainly from the universities of Bangkok and the researcher was failed to conduct investigation in other areas of university users, therefore, the range of sample data of the crowd may be relatively narrow.

5.3 Recommendations

To sum up, this paper has made some achievements in the study of user willingness and intention to use ofo bike sharing service, but there are still some shortcomings, which need further improvement in subsequent research.

First of all, regarding to the direction of research in this paper consist only the user's intention of using ofo bike sharing service and the development prospective of ofo company based on the findings of interview, the following research should focus on the other characteristics of ofo bike. For example, the quality of ofo bike sharing services' maintenance service, the risk of personal privacy information exposure and the contingency marketing promotion through ofo application, these factors need to be investigated and analyzed in depth. A more comprehensive analysis will help to enrich the research content of this paper as well as making it more realistic and more conducive to predicting the user's willingness and behavior to help the company to operate and manage.

Secondly, the sample data mentioned above are all from the users of the universities in Bangkok. The future study need spend more time and budget to conduct the research in the area outside the campus, say, the city center in order to get more comprehensive information. Thus, the data will represent the overall characteristics of users across the country. In addition, the sample data in this paper is cross-sectional data, that is, the interviewees in this paper only represent the user's perception at that moment. Since everyone's cognition and behavior are constantly changing, it is recommended to select different time nodes in the future. The user's perception of differences at multiple time nodes, and analyze whether this effect changes over time, as well as the cause, timing, and conditions of the change.

All in all, if we can further improve these two points in the follow-up study, I believe that the results of this study will be more comprehensive, more concrete, and more convincing and instructive.

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