A STUDY OF FACTORS INFLUENCING CONSUMERS ADOPT THE RIDE-HAILING SERVICES IN BANGKOK AND NEARBY AREAS

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A STUDY OF FACTORS INFLUENCING CONSUMERS ADOPT THE RIDE-HAILING SERVICES IN BANGKOK AND NEARBY AREAS

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ABSTRACT

The purpose of this paper is to identify the factors that can influence consumers to adopt the ride-hailing services between Bangkok and perimeters, in order to have a better understanding towards the rapidly changing and enhancing the better urban mobility in Bangkok. The data were derived from online questionnaires which were randomly distributed and acquired the sample size of 122 respondents. All of the respondents are active user who currently use ride-hailing service in 3 months. The findings of this research demonstrate that convenience and cancellation protection factors have some relations toward usage intention of the consumers to adopt ride-hailing services. Moreover, the study found that there are gender, age and income range that is significantly influence user to adopt the ride-hailing services.

KEY WORDS: Ride-hailing Service / Grab / Line Taxi / Bangkok / Transportation / Consumer Behavior

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CHAPTER I
INTRODUCTION

The research topic of this Thematic Paper is to study factors that influence consumers to adopt the Ride-Hailing services in Bangkok and perimeters. As in the recent few years, there is an arising problem with public transport services in Bangkok, whether it be Taxi refuse to pick up the customer when the destination is not matched or the safety related issue, Tuktuk always claim for overpriced and many more. At the moment, people who live in Bangkok and perimeters and my surrounding peers are more likely to switch to adopt Ride-Hailing service e.g. Grab or Line Taxi. This is significantly changed in consumer behavior towards transportation business in Bangkok. It also impacts the rapid expansion of the ride-hailing services as well.

1.1 Research Objectives

The purpose of this study is to identify the main factor that impacting the adoption of Ride-Hailing Service between Bangkok and perimeters riders in order to have a better understanding towards the rapidly changing and it could also help enhancing the better urban mobility in Bangkok and perimeters.

1.2 Research Question

This study investigates what are the key factors that contribute people to use or ride Ride-Hailing service focusing on Grab in Thailand.

RQ1: What are the factors important to consumer when selecting the service?

1.3 Research Scope

The study conducts a quantitative research approach by online survey. The total sample size will be approximately 100 respondents who are the Grab and Line Taxi users which lives in Bangkok urban. This will measure factors drive them to adopt the Ride-Hailing services in Bangkok and perimeters including Nonthaburi, Samutprakarn, Samutsakorn which is most of commuters live in this particular area. This research was conducted from June 2019 to Aug 2019.

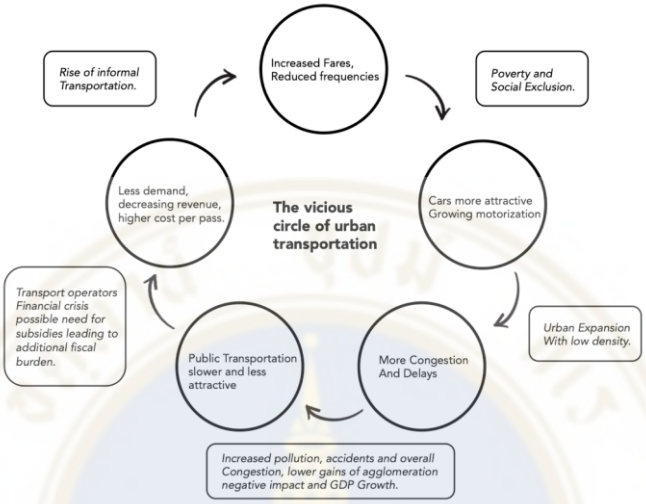
CHAPTER II
LITERATURE REVIEW

This chapter aims to study on the previous research, which was selected from the various sources in order to review and explore more into the factors, that impact consumer's intentions to adopt Ride-Hailing services. Therefore, it is significant to include the definition and background of Ride-Hailing services, limitations regarding the political and legal issues in several countries especially in Thailand. Also, this chapter will discuss further on the conceptual framework to help understand the attitude toward decision making on this usage.

2.1 Understanding the Ride-Hailing Services

Ecolane (2018) has defined the meaning of Ride-Hailing service as the public transportation that provides a customized ride or service. Customers may request for a ride via phone or that specific application. However, the transportation vehicle of ride-hailing is not shared with any other riders, instead, the personal driver will take customer to the requested destination. Literally, terms of Ride-Hailing are not that new, but it has been adapting from the transportation one hail (Bellhop, 2018). Even now Thailand has the public transportation options but looking inside the vicious circle of urban transportation developed by (Gomez, 2012) as shown in *figure 1.1*. Public transportation in most developing countries were experiences an "in-between" situation. When the demand is increasing, inevitably fares is also increasing which led to the reduction of usage frequencies (Jeekel, 2019. p. 119). Richer household switch to pursue cars, leads to the higher traffic and congestion which consequences in poor operation in public transportation and keep continuing in this

vicious loop. Hence, this is one of the reasons why Ride-Hailing Service has started to approach developing country. Middle-low income people have no options to choose, instead, accepting and desperately adapt themselves in this life cycle.



Source: Ardila-Gomez (2012)

Figure 2.1: The Vicious Circle of Urban Transportation

2.1.1 The Rise of Ride-Hailing Services

In 2009, Uber first launched their ride-hailing service aimed to gear toward the problem of the inconvenience in finding the traditional taxi and unreasonable cost that most of commuters experienced (Alpe, 2015). With a massively expansion, Uber is now available in 65 countries and over 600 cities worldwide (Iqbal, 2019). In the meantime, while Uber has continued expanded its business, there are numbers of emerging ride-hailing services as well. For instances, Grab, Lyft, Line Taxi and many more. These companies are offering the same benefits to commuters by matching the demand to supply. In other words, directly linking the user to driver when needed. Most of ride-hailing service operates via mobile application. With the technology advancement, when the request has been sent to the driver, and the driver accept. Commuters is able to see the driver license plate, name, ratings, type of cars

and rough estimate the cost of trip before they confirm the ride (bellhop 2018). On the other hand, it is also safe and more flexible for driver. Driver is able to see the passengers before and give rating to them. In terms of flexible, unlike traditional taxi, drivers are allowed to pick their own working hours without sacrificing their full-time job to drive the taxi (Jalloh, 2019). Therefore, with the characteristics of ride-hailing services help increase the effectiveness and convenience among passengers and drivers

2.2 Grab: The Green Light Ride-Hailing Service in Thailand

According to the Bangkok Post article (Suchit, 2018), Grab has been acquiring the Uber businesses in Southeast Asia and merging into one platform business. In the moment, Thailand has only one powerful ride-hailing service, Grab. The firm is available in eight countries including Malaysia, Singapore, Indonesia, Thai, Vietnam, Cambodia, Philippines, Myanmar (Grab, 2019). Founded in Malaysia, the original name is MyTeksi, Grab has first debuted in Thailand in October 2013 and introduced Thai passengers to book taxi through smartphone. Grab has transformed the dynamic of taxi services, expanded business and rapidly grown to be the fastest, safest and largest taxi booking mobile application in Southeast Asian region (Philip, 2014). In the moment, there are 139 million downloads, operates averagely more than 6 million rides a day (Chandler, 2019) which has now led value of Grab at $14 billion (Russell, 2019). Over 5 years of its operation, Grab extended its service into GrabCar Premium, GrabCar Plus and GrabCar Luxe as well (Grab, 2019). Even Grab has played a crucial part in Thai public transportation, the company still fight against the legalization in Thailand. According to the Department of Land Transport (DLT), the ride-hailing services has declared banned and unlawful in Thailand (Bunyamanee, 2017). As there are many problems arise and one of the them is the violence between convention taxi drivers and ride-hailing drivers. Taxi drivers

intimidate the GrabCar driver or even attacked the target when they know the driver is belong to Grab (Tanyaporn, 2019). The dispute is going tougher and seems endless but still many passengers prefer to adopt Grab Car than conventional taxi drivers.

2.3 Conceptual Framework

In the last section of the literature review, author has found many factors which impact consumer's intention to use the Ride-Hailing service. However, there is some related results from the previous research that identifies the factors drive consumer to adopt the Ride-Hailing service but not in particular Thailand. Therefore, the author has established the hypothesis as in the below framework in order to consider the relationship for the empirical research behind;

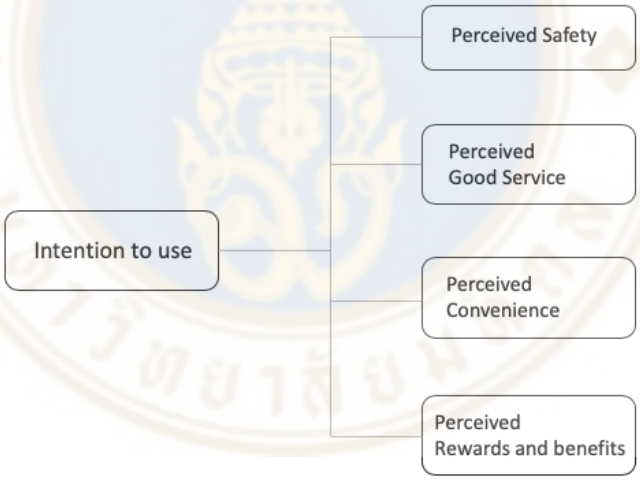


Figure 2.2: The Motivational Factor influencing people to use Ride-Hailing Service

2.3.1 Perceived Safety

Safety is one of the most important factors that can attract customer to choose Ride-Hailing service than traditional Taxi. Due to many violations or sexual harassment associated with convention taxi drivers, people tend to avoid the perceived

risks that may causing from commute local taxi. Even in our neighbor country, Myanmar, there also has the sexually assaulted case causing from taxi driver. According to Myanmar Times online newspaper, many local people tend to shift to adopt the Ride-Hailing service, Grab or Uber as they think it will be safer and access to key information such as driver name, license plate, car model and such. If any emergency situation happens, making it easier to track the driver or call for help (Aye Nyein Win, 2018). Therefore, Ride-Hailing service would consider to be a safer choice for passengers.

2.3.2 Perceived Good Service

According to the Public Transport Council survey from Singapore, passengers are more satisfied with the private Ride-Hailing Services than Taxis (Straits Time, 2017). As reported from the poll, customers are given a satisfaction mean score of 7.9 out of 10 to Ride-Hailing Services (Grab and Uber) whereas Taxi has received only 7.5 out of 10. With the disruptive business model and technology, making ride hailing tailor their service fit with each customer as well. Also, another major pain point of Bangkokian taxi commuters is the taxi drivers repeatedly refuse passengers. The common unsolved problem that has been there with us for a while. As reported by Bangkok Post online newspaper, there are several reasons which are shift change, traffic jams, low fuel or even the destination is not matched with taxi drivers (Svasti, 2015). When it comes to Ride-Hailing service, especially Grab, there are policy provided for the driver who always cancel the ride. Cancellation rate at 5-10 times per week, driver will receive penalty. If up to 11-20 times, the driver will be suspended for 5 days (Grab, 2016).

2.3.3 Perceived Convenience

With the technology advancement, Ride-Hailing service has been adopting through the smartphone-based in both supply and demand side where you can easily

access. Only install the application, create your own profile, once successfully registered, you can book the desired destination you want to go. Then, the available private car or taxi will match your demand with only less than 5 minutes (Pajaree, 2015). Also, based on the statistics, it was found that Uber can offer rides to places that are difficult for the taxi to reach (Alley, 2016). It is shown that Ride-Hailing service can offer ease of use and access to the particular travel destination.

2.3.4 Perceived Rewards & Benefits

Reward is matter to all generations. Based on the Retail Touch Point journal, every generations are interested in points-based loyalty programs. As this type of program makes them feel like they're actively getting something in return for the purchase (Wassel, 2018). Most of Ride-Hailing services also implemented this strategy in order to give points to customers when they complete the ride. Grab also committed that they will be reward users in their daily transactions (Farveen, 2018). Whereas, convention taxi does not offer this kind of benefits. Therefore, it could be said that this is one of the key motivations to attract customer to adopt the Ride-Hailing service in order to receive additional benefits as well.

Table 2.1: Table summaries of the measurement items of each Motivational Factors

Motivational Factor	Measurement Item	References
Perceived Safety	Able to use / commute during the night	(Aye Nyein Win, 2018). ("Ride-Sharing", n.d.). (Grab, 2016). (Rydely, 2019)
	Able to use / commute alone	
	Trackable throughout the trip	
	Able to identify the driver and car identity	

Table 2.1: Table summaries of the measurement items of each Motivational Factors (cont.)

Perceived Good Service	Able to check driver rating and feedback	(Straits Time, 2017). (Grab, 2016). (Rydely, 2019)
	Able to give driver rating and feedback	
	Call Center / Customer Service provided	
	Lower rejection rate	
Perceived Convenience	Ease of use	(Pajaree, 2015). (Alley, 2016).
	Always accessibility	
	Debit / Credit Card and Cash acceptance	
	Short waiting time	
Perceived Rewards and Benefits	Promotion and discount given	(Wassel, 2018). (Farveen, 2018).
	Loyalty program provided	
	Catering to individual needs	
	Benefits from other brands	
Intention to use	Usage preference Increasing of Usage	(Rydely, 2019)

CHAPTER III
RESEARCH METHODOLOGY

This research attempts to study and understand further in the key factor of the adoption of Ride-Hailing services in Bangkok and nearby areas. The paper will focus on Ride-Hailing services user especially Grab service who lives in Bangkok and perimeters. In this research, the method of collecting data will be through online questionnaire.

The research method will conduct by quantitative method to measure what are the key important factors that Bangkok and nearby users use for decision making to call the service. The research will be consisted of sample size selection and the data analysis. Therefore, the quantitative research method was implemented as it allows studying a larger sample than the interview approach in a limited timeframe (Sutherland, 2019).

3.1 Data Collection and Sampling

The online questionnaire is distributed via Google form website with intended sample size of 100 Grab active users who stay in Bangkok and neighborhood areas including Nonthaburi, Samutprakarn, Samutsakorn. According to the rule of 100 Hatcher (1994) recommended that the number of samples should be the larger of 5 times the number of variables, or 100. Even more according to the Science Buddies, the large number of sample size, the less percentage of error occurred as to identify the accuracy and reliability of the results (Sample Size, n.d.). Bangkok urban areas were chosen as the provinces to collect data due to these are the

destination where the five busiest road and most traffic jam are located in that areas (ThaiPBS, 2014).

3.2 Questionnaire Designs

The survey questionnaire was developed from the literature review, in relation with the vicious circle of public transportation in Bangkok. As well, the Taxi problem arises in Thailand. The questionnaire is designed to ask for motivational factor, which contains of 4 variables as stated in the conceptual framework.

The questionnaire comprised of four sections as follows:

Part 1: Introduction and Screening Information using nominal scale for 1 question.

Part 2: General Information to get the overview information about the adoption behavior of respondents by using ordinal scale for 4 questions.

Part 3: Specific Information for understanding consumer behavior and intention to buy by using Likert Scale ranging from 1 to 4. According to the Versta Research, to avoid the neutral voice, offering the 4-point scale would allow the researchers to simply and easier to identify the tone of voice and how many people agreed or disagreed. (Hopper, 2016) as below:

1 = Strongly Disagree

2 = Disagree

3 = Agree

4 = Strongly Agree

Example statements;

1. When commuting home at late night, I would consider to use Grab / Line Taxi more than traditional taxi services. I always concern the safety first when I call a ride or services.

2. I would prefer to use ride-hailing service when the application is easy to use

Part 4: Demographic Information will be using both Nominal and Ordinal scale for 3 Questions.

3.3 Data Analysis

To analyze the data, the tool that will be used is Statistical Package for Social Science (SPSS) program software in order to calculate and test the variables that are related to the topics. This research will be using measurement tools as follows:

Factor Analysis, which will be used for investigating variable relationship based on the conceptual framework by coding the data and put it into SPSS to analyzed the data to find the independent factors and reduce the unnecessary attributes one by one to determine what features are most important, Identifying items of questionnaire that stick together and classifying a group of items then cut out the low factor loading below 0.4, cross loading and mismatch wording. When we got a clean data and clear separation of scree plot then re-grouping variables to a new group. Lastly, using **Multiple Regression,** as a predictive analysis, the multiple linear regression is used to explain the relationship between two or more independent variables. The independent variables can be continuous or categorical as well as understanding whether the motivational factor can be predicted based on the above conceptual framework or not.

3.4 Reliability and Validity

To measure the data and result, it involves assigning scores to individual and to confirm that the scores make sense based on their understanding of the construct being measured. This research will be using reliability measurement tools as follows:

Internal Consistency, which Cronbach's Alpha, the most convenient test using to estimate whether the Score is reliable. It is used to assume when there are multiple items measuring the same underlying construct (Reliability and Validity of Measurement, n.d.).

CHAPTER IV
RESULTS AND DATA ANALYSIS

4.1 Demographic Information

The actual samples collected are 148 respondents from Google Form, but got screened and reduced into 122 usable results. Since another 26 respondents didn't pass the screening question by answer No, as this study only aim for active ride-hailing user. Therefore, the respondents who has not been used ride-hailing services in 3 months are not accumulated. From the total of the number, all respondents were at least using ride-hailing service in the last 3 months. There are 80 female respondents out of the total 122 respondents, whereas male represented only 34% of total respondents. The demographics of the 122 respondents are as follows:

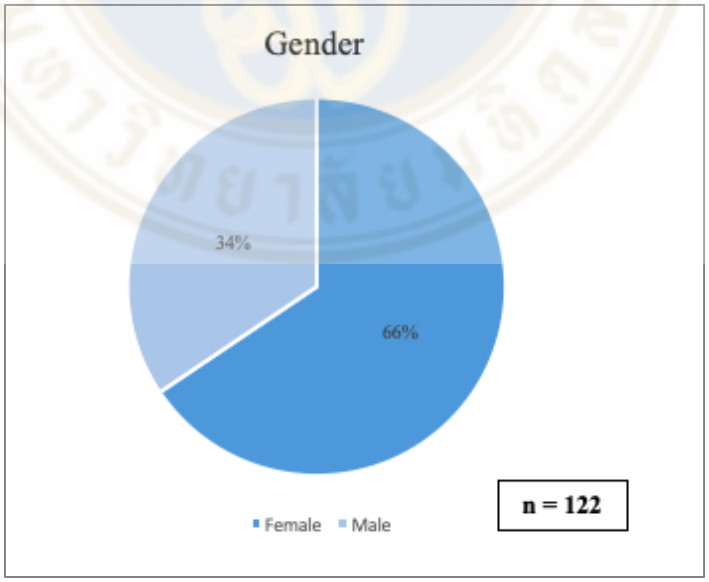


Figure 4.1: Gender

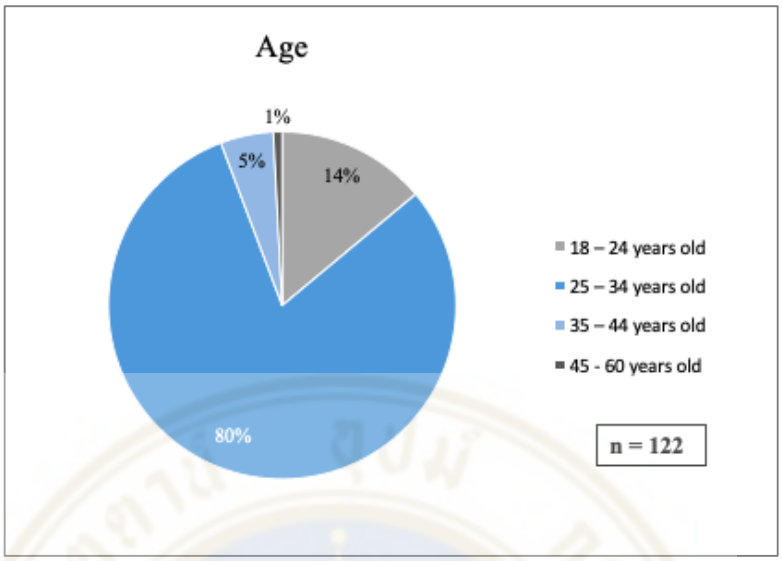


Figure 4.2: Age

According to Figure 4.2, majority of age range is between 25-34 years old at 80%, followed by 18-24 years old at 14%, 35-44 years old at 5% and 45-60% years old at only 1%.

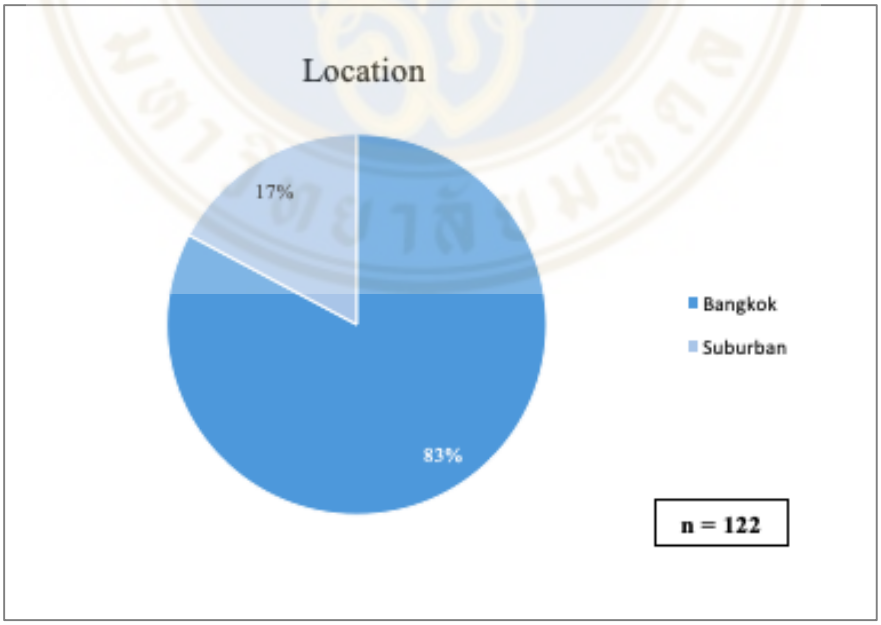


Figure 4.3: Location

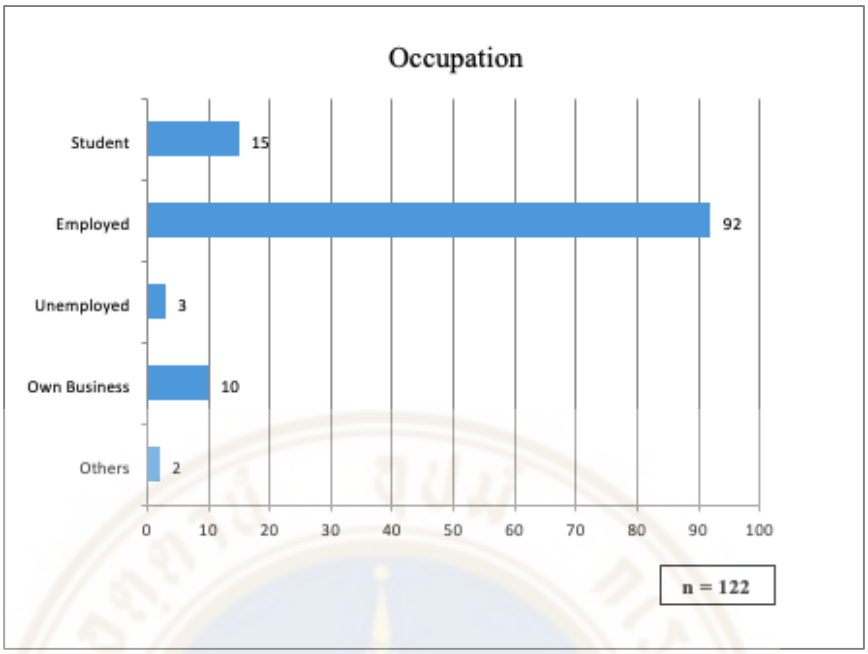


Figure 4.4: Occupation

According to Figure 4.4, majority of occupation range is employed which accounts to 92 people, followed by students results in 15 people. Whereas unemployed and others are accounts to only 5 people.

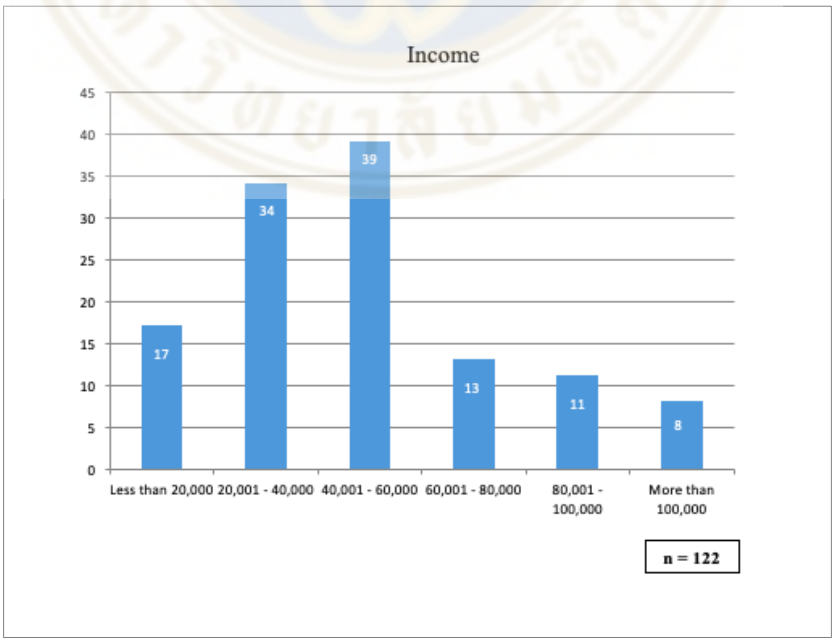


Figure 4.5: Average Income

In addition, table 4.5 illustrates the percentage of monthly income range of the respondents that most of them has monthly income between 40,001-60,000 THB accounts to 39%, followed by 20,001-40,000 at 34% while the range of 60,001-80,000 THB and 80,001-100,000 THB have quite close proportion at 13% and 11% in sequence

.

4.2 Descriptive Statistics

One-way ANOVA was used to examine the significant difference (sig. < 0.05) regarding to the main variables. In the study, 5 questions of demographic has been included which are Gender, Age, Location, Occupation and Income. However, a significant difference has been found among respondent's gender, age and income. According to Figure 4.6, gender, the difference can be seen that female respondents tend to consider using a ride-hailing service more than taxi, when commuting home at night (Sig. = 0.001) and when commuting from one to another place alone (Sig. = 0.001). When it comes to age group, according to Figure 4.7, the younger age range tend to get more attracted to promotions or discount given than the adults and older (Sig. = 0.006). Another significance shows between groups of the income, as shown in Figure 4.8, the difference can be seen that group of people who have higher income range tend to concern more on the cancellation policy provided to protect passengers (Sig. = 0.016). and the less rejection rate (Sig = 0.013).

	Gender	N	Mean	Sig.
When commuting home at late night, I would consider using a ride-hailing service more than traditional taxi services.	Male	42	3.17	0.001
	Female	80	3.6	
	Total	122	3.45	
When commuting from one to another place alone, I would consider using a ride-hailing service more than traditional taxi services.	Male	42	2.9	0.001
	Female	80	3.45	
	Total	122	3.26	

Figure 4.6: ANOVA analysis between Gender and Descriptive selected output

	Age	N	Mean	Sig.
I would consider switching to adopt ride-hailing service, if there is always-on promotion or discount given.	18-24 years	17	3.71	0.006
	25-34 years	98	3.61	
	35-44 years	6	2.67	
	45-60 years	1	4	
	Total	122	3.58	

Figure 4.7: ANOVA analysis between Age and Descriptive selected output

	Income	N	Mean	Sig.
It is important for me being able to rate the driver and give feedback after the ride.	Less than 20,000	17	3.12	0.028
	20,001 - 40,000	34	2.88	
	40,001 - 60,000	39	3.21	
	60,001 - 80,000	13	3.23	
	80,001 - 100,000	11	2.64	
	More than 100,000	8	3.63	
	Total	122	3.08	
I would prefer to use the ride-hailing service as they are rarely rejected or refused customers unlike traditional taxis.	Less than 20,000	17	3.29	0.013
	20,001 - 40,000	34	3.29	
	40,001 - 60,000	39	3.69	

	60,001 - 80,000	13	3.77	
	80,001 - 100,000	11	3.73	
	More than 100,000	8	4	
	Total	122	3.56	
I would prefer to use the ride-hailing service, as they provide the cancellation policy to protect passengers.	Less than 20,000	17	3.41	0.016
	20,001 - 40,000	34	3.26	
	40,001 - 60,000	39	3.62	
	60,001 - 80,000	13	3.77	
	80,001 - 100,000	11	3.73	
	More than 100,000	8	4	
	Total	122	3.54	
I would consider switching to adopt ride-hailing service, if there is always-on promotion or discount given.	Less than 20,000	17	3.65	0
	20,001 - 40,000	34	3.71	
	40,001 - 60,000	39	3.79	
	60,001 - 80,000	13	3.38	
	80,001 - 100,000	11	3.18	
	More than 100,000	8	2.75	
	Total	122	3.58	

Figure 4.8: ANOVA analysis between Income and Descriptive selected output

4.3 Factor Analysis

Factor Analysis is generally a technique used for reduction a large number of variables into fewer factors (Factor Analysis, 2019). According from the survey, 18 initial questions were used for representing 4 variables. When running the first set of factor analysis, there was a total of 6 components that has the Eigenvalue more than 1.

Rotated Component Matrix[a]

	Component				
	1	2	3	4	
It is important for me being able to see the driver rating and feedback before start taking the ride.	.869				Perceived Safety
It is important for me being able to rate the driver and give feedback after the ride.	.855				
It is important for me being able to see the driver's name and car identity before taking the service.	.666				
I would prefer the ride or services that allow me to pay both credit/debit card as well as cash.		.806			Perceived Convenience
I would prefer the ride or services that can shorten my waiting time.		.759			
I would prefer to use ride-hailing service when the application is easy to use.		.729			
I would prefer to use the ride-hailing service as they are rarely rejected or refused customers unlike traditional taxis.			.887		Cancellation Protection
I would prefer to use the ride-hailing service, as they provide the cancellation policy to protect passengers.			.861		
I would consider to adopt ride-hailing service, if there is membership or loyalty program provided.				.837	Perceived Rewards & Benefits
I would consider switching to adopt ride-hailing service, if there is always-on promotion or discount given.				.817	

Figure 4.9: Final Rotated Component Mix

As shown above in the Figure 4.9, there were a total of 13 questions left, after running the factor analysis to cut out insignificant data. These data justified to be more relevant and significant to be a proper measurement of intention to use. This paper ended up with 4 groups of factors which were ***Perceived Safety***, is grouped by the set of factors that related to the transparency of service that can enhance the usage of the ride-hailing service. ***Perceived Convenience***, remains since the conceptual framework as consisted of characteristic of the service that allow ease of use. ***Cancellation Protection***, which could be defined in the characteristics of service that enforce to protect the users when there is cancellation caused. Last but not least, ***Perceived Rewards and Benefits*** is defined as the additional perks or incentives to motivate user to use the service. These independent factors would be used to analyze the relationship between the factors and demographic data as well as dependent variables.

4.4 Regression Analysis

According to the factor analysis, there were 4 groups of independent variables, which would measure Intention to use. Thus, this paper would explore whether the 4 variables has positively influenced with Intention to use or not.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.376[a]	.142	.112	.654

a. Predictors: (Constant), Promotion, Safety, Cancellation protection, Convenience

Figure 4.10: Model Summary for Intention to Use

From the figure 4.10, the data was classified from using the regression analysis that shows the result of relationship between all four independent variables (Perceived Safety, Perceived Convenience, Cancellation Protection, Perceived Rewards and Benefits) and one dependent variable (intention to use). The data shows that the independent variables have a relationship with the intention to buy at 37.6%. The R Square is 14.2% which mean there are other independent variables that can be affected the intention to buy at 85.8%. The adjusted R Square of 11.2% illustrated that if the researcher brings all independent variables to test with another sampling, the adjusted R Square will reduce to 11.2% from 14.2%. There is a Standard Error of the Estimate at 65.4% which means there are others independent variables that can be adopt for testing the intention to use ride-hailing service excepted Perceived Convenience.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.271	4	2.068	4.829	.001[b]
	Residual	50.098	117	.428		
	Total	58.369	121			

a. Dependent Variable: I prefer to use ride-hailing services (Grab, Line Taxi and etc.) more than traditional taxis.

b. Predictors: (Constant), Promotion, Safety, Cancellation protection, Convenience

Figure 4.11: Model ANOVA Score

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.897	.645		1.392	.167
	Safety	.032	.033	.085	.959	.339
	Convenience	.140	.052	.255	2.691	.008
	Cancellation protection	.110	.051	.192	2.157	.033
	Promotion	-.011	.051	-.019	-.212	.833

a. Dependent Variable: I prefer to use ride-hailing services (Grab, Line Taxi and etc.) more than traditional taxis.

Figure 4.12: Coefficients Matrix for Intention to Use

According to table 4.11, the ANOVA table shows that regression model statistically significantly predicts the dependent variables which is Intention to use (sig. = 0.001) and four independent variables can affect intention to use ride-hailing services. From the figure 4.12, there is significant relationship between the intention to use and Perceived Convenience (Sig, .008), The strong relationship between these two variables is 0.255 (Beta) and significant at 95% confidence. So, the Perceived Convenience has positive impact on the intention to use which is acceptable. Following by the Cancellation Protection, there is significant relationship between these two variables which is accounts to 0.192 (Beta) and significant at 95% confidence. Therefore, the Cancellation Protection also has positive impact on intention to use ride-hailing service

as well. While the rest independent variables have not significant effect on the intention to use ride hailing service.

4.5 Re-run Regression Analysis

After remove two non significant variables which are Perceived Safety and Cancellation Protection, the data shows that, R result has remained the same. However, the R Square has slightly decreased to 13.4 and adjusted R Square has increased to 12%. This illustrated that if the researcher bring all significant independent variables to test with another sampling, the adjusted R Square will reduce to 12% from 13.4%. Therefore, Standard Error of the Estimate decrease to at 65.2% which means there are others independent variables that can be adopt for testing the intention to use ride-hailing service.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.367[a]	.134	.120	.652

a. Predictors: (Constant), Cancellation protection, Convenience

Figure 4.13: Re-run Model Summary for Intention to Use

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.849	2	3.925	9.245	.000[b]
	Residual	50.519	119	.425		
	Total	58.369	121			

a. Dependent Variable: I prefer to use ride-hailing services (Grab, Line Taxi and etc.) more than traditional taxis.

b. Predictors: (Constant), Cancellation protection, Convenience

Figure 4.14: Re-run Model ANOVA Score

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.008	.581		1.737	.085
	Convenience	.146	.048	.265	3.035	.003
	Cancellation protection	.118	.050	.205	2.346	.021

a. Dependent Variable: I prefer to use ride-hailing services (Grab, Line Taxi and etc.) more than traditional taxis.

Figure 4.15: Re-run Coefficients Matrix for Intention to Use

According to table 4.14, the ANOVA table shows that regression model statistically significantly predicts the dependent variables which is Intention to use (sig. = 0.000) and two independent variables can affect intention to use ride-hailing services. From the figure 4.15, there is significant relationship between the intention to use and Perceived Convenience (Sig, .003), the strong relationship between these two variables is 0.265 (Beta) and significant at 95% confidence. Still, the Perceived Convenience has positive impact on the intention to use which is acceptable. Following by the Cancellation Protection, there is significant relationship between these two variables which is increasing to 0.205 (Beta) and significant at 95% confidence. Therefore, the Cancellation Protection still prove the positive impact on intention to use ride-hailing service.

4.6 Reliability Statistics

Cronbach's Alpha results in a number from 0 to 1. Generally, a score of more than 0.6 is common in exploratory research, more than 0.7 is regarded as an adequate scale. (Key, 1997; Malhotra and Birks. 2003). However, as shown in the figure below, all of four factors are above 0.6 which could be interpreted that it is the 4 groups are reliable to measure the intention to use ride-hailing services.

Cronbach's Alpha	N of Items
.738	3

Figure 4.16: Safety Reliability Statistics

Cronbach's Alpha	N of Items
.695	3

Figure 4.17: Convenience Reliability Statistics

Cronbach's Alpha	N of Items
.751	2

Figure 4.18: Cancellation Protection Reliability Statistics

Cronbach's Alpha	N of Items
.626	2

Figure 4.19: Rewards and Benefit Reliability Statistics

CHAPTER V
CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The main objective of this study is to study the key factors that influence consumers to adopt the Ride-Hailing services in Bangkok and perimeters. The research model was developed to understand what are the factors important to consumers when selecting the ride-hailing services? and how does the perception and attitude toward Ride-Hailing service impact the adoption of Grab in Thailand? The result of the analysis is useful for the related Ride-Hailing organizations e.g. Grab, Line Taxi and potential new players. These organizations can applied this output in their product development strategy and improve customer satisfaction to understand consumer's behavior and their selection criteria in order to gain more competitive advantage in this area. The result from this research support the conceptual framework which are perceived safety, perceived convenience, perceived rewards and cancellation protection which is another angle of good service factor in the conceptual framework. These factors are somewhat important to influence consumers' decision in order to adopt ride hailing service. **The result from this study has indicated that perceived convenience is the most important elements following by the cancellation protection toward the consumer considering stage to adopt the ride-hailing services**. Perceived Convenience relates directly that enabling customer's ease of use, allow various payment choices and shorten their waiting time has influenced consumer's decision to adopt ride-hailing service. Moreover, Cancellation Protection also one of the main factor that influenced consumer to adopt in ride-hailing service as there are protection features to protect consumers when cancellation caused. Based on the sample size, this study also reveals that female tend to concern more when it comes to safety or if they have to ride home at late night

or alone. Regarding to the promotion and discount related, the younger age range and lower income group tend to easily attract with the promotion and discount given more than the older age range and higher income group.

5.2 Limitations

Due to the limitation choices of ride-hailing services in Bangkok, as Uber already bowed out from Bangkok. Therefore, there are main two ride-hailing services company in Bangkok which are Grab and Line Taxi. This study only captured the two group of users which is difficult to analyze the hypothesis whether there are any differences between services in the factor that influenced their decision of ride-hailing service adoption. Moreover, this research only focuses on finding the various factors influencing ride-hailing service adoption, but does not go in depth understanding into the reason and details behind each factor. Therefore, the future research could have possibility to adopt qualitative research such as individual interview or focused group in order to help provide additional insights, reasons, motivations into this study.

5.3 Recommendations

Since the study was conducted with quantitative research which analyzed based on statistical data. The findings and data interpretation in this research provide the important factors with regards to Bangkok and nearby areas user who have currently used ride-hailing services providing in Thailand. It is obvious that convenience and cancellation protection is the key important factors influencing users to adopt the ride-hailing services. Comparing to traditional taxis in Bangkok, it could be interpreted that these factors are the main competitive advantage of ride-hailing service that users will never experience in adoption regular taxi. Hence, the future research could focus more

on an explanation through essentialness of each variables. Moreover, describing how those elements are perceived as important and influenced on the users. Also, it could be more useful if the study could be dive deep more on the specific brands and what is their competitive advantage of each in order to understand more meaning further from the given result. Therefore, it is essential for the related ride-hailing organizations e.g. Grab, Line Taxi and potential new players that will be coming in the future. These organizations can applied the results from this study and further develop their product strategy in order to differentiate their uniqueness and becoming the top brand in consumer's mind among this industry. In addition, the organization could utilize the findings to improve customers' satisfaction regarding to understand consumer's behavior and their selection.

REFERENCES

Ride Hailing & Ride Sharing: Everything You Need to Know. (n.d.). Retrieved June 10, 2019, from https://bellhop.app/ride-hailing-ride-sharing-everything-you-need-to-know/

E. (2018, October 18). RIDE-HAILING VS. RIDE-SHARING: THE KEY DIFFERENCE AND WHY IT MATTERS. Retrieved June 10, 2019, from https://www.ecolane.com/blog/ride-hailing-vs.-ride-sharing-the-key-difference-and-why-it-matters

Alpe, L. (2015, November 03). The history of Uber. Retrieved June 10, 2019, from https://www.telegraph.co.uk/technology/uber/11962859/The-history-of-Uber.html

Iqbal, M. (2019, May 10). Uber Revenue and Usage Statistics (2019). Retrieved June 10, 2019, from http://www.businessofapps.com/data/uber-statistics/

About Grab. (2019). Retrieved June 10, 2019, from https://www.grab.com/th/en/about/

Leesa-nguansuk, S. (2018, March 27). Merger of Grab and Uber drive monopoly, pricing concerns. Retrieved June 10, 2019, from https://www.bangkokpost.com/news/transport/1435682/merger-of-grab-and-uber-drive-monopoly-pricing-concerns

Smith, C. (2019, June 14). 30 Interesting Grab Facts and Statistics (2019). Retrieved June 16, 2019, from https://expandedramblings.com/index.php/grab-facts-statistics/

Chandler, C. (2019, March 20). Grab vs. Go-Jek: Inside Asia's Battle of the 'Super Apps'. Retrieved June 12, 2019, from http://fortune.com/longform/grab-gojek-super-apps/

Russell, J. (2019, March 16). Grab confirms $1.46B investment from SoftBank's Vision Fund. Retrieved June 15, 2019, from https://techcrunch.com/2019/03/05/grab-vision-fund/

Bunyamanee, S. (2017, July 12). Time for ride-sharing services to pay up. Retrieved June 12,2019, from https://www.bangkokpost.com/opinion/opinion/1285499/time-for-ride-sharing-services-to-pay-up

WIN, A. N. (2018, February 1). Concerned with personal safety, passengers opt for taxi service operators. Retrieved June 12, 2019, from https://www.mmtimes.com/news/concerned-personal-safety-passengers-opt-taxi-service-operators.html

Grab legalisation inches forward. (2019, February 27). Retrieved June 12, 2019, from https://www.thephuketnews.com/grab-legalisation-inches-forward-70524.php#s5fjKs9REMLKXMPo.97

Hicks, W. (2019, January 10). Grab awaits legal progress amid domination. Retrieved June 12, 2019, from https://www.bangkokpost.com/business/news/1608654/grab-awaits-legal-progress-amid-domination

Svasti, P. (2015, February 3). A Taxing Time. Retrieved June 12, 2019, from https://www.bangkokpost.com/lifestyle/social-and-lifestyle/465101/a-taxing-time

Lim, A. (2017, February 14). 'Passengers happier with Uber, Grab than cabs'. Retrieved June 12, 2019, from https://www.straitstimes.com/singapore/transport/passengers-happier-with-uber-grab-than-cabs

Ackaradejruangsri, P. (2015). Insights on GrabTaxi: An Alternative Ride Service in Thailand. Retrieved June 13, 2019, from https://sibresearch.org/uploads/2/7/9/9/2799227/riber_b15-062_49-61.pdf

Farveen, F. (2018, July 24). Grab does a backflip on its ride rewards and loyalty update. Retrieved June 12, 2019, from https://www.marketing-interactive.com/grab-does-a-backflip-on-its-rewards-and-loyalty-update/

Wassel, B. (2018, September 17). Points-Based Rewards Motivate Loyalty Among All Generations of Shoppers. Retrieved June 13, 2019, from https://www.retailtouchpoints.com/topics/crm-loyalty/points-based-rewards-motivate loyalty-among-all-generations-of-shoppers

Jeekel, H. (2018). *Inclusive Transport: Fighting Involuntary Transport Disadvantages* (1st ed.).

Sutherland, C. (2019, March 20). 10 Key Advantages of Using Online Surveys. Retrieved June 19, 2019, from https://explorance.com/blog/10-key-advantages-of-using-online-surveys-2-2/

Niles, R. (2006). Sample Size: How Many Survey Participants Do I Need? *Sample Size: How Many Survey Participants Do I Need?* Retrieved July 7, 2019, from https://www.sciencebuddies.org/science-fair-projects/references/sample-size-surveys.

Hopper, J. (2016). Why You Need 4-Point Scales. Retrieved July 7, 2019, from https://verstaresearch.com/blog/why-you-need-4-point-scales/.

Factor Analysis. (2019). Retrieved August 2, 2019, from https://www.statisticssolutions.com/factor-analysis-sem-factor-analysis/

Cronbach's Alpha. (2019). Retrieved August 2, 2019, from https://www.statistics solutions.com/cronbachs-alpha/

(2019). Ride-sharing: The rise of innovative transportation services. Retrieved August 8, 2019 from https://www.marsdd.com/news/ride-sharing-the-rise-of-innovative-transportation-services/

R. (Ed.). (2019, August 6). Uber vs Taxi: Services Compared. Retrieved August 8, 2019 from https://www.rydely.com/uber-vs-taxi/amp/

Reliability and Validity of Measurement. (2019). Retrieved August 8, 2019, from https://opentextbc.ca/researchmethods/chapter/reliability-and-validity-of-measurement/

APPENDICES

Appendix A: Questionnaire

Part 1:

This survey aims to study the main factor impacting the adoption of Ride-Hailing Service between Bangkok urban areas. The questionnaire will take about 10 minutes to complete. This survey is a part of the Master degree thematic paper at College of Management, Mahidol University. Your answers will be kept confidential and used for research purpose only.

Screening question:

1. Are you using ride-hailing services (Grab, Line Taxi, etc.) in the last 3 months?

   Yes. (If yes, please continue answer the following question).

- No. (If no, thank you for taking your time answer the questionnaire) and Finish.

Part 2: General questions:

1. Which of the following ride-hailing services do you most regularly use?

- Grab
- Line Taxi
- Others (Please specify): _____

2. How often do you use ride-hailing services such as Grab / Line Taxi?

- More than one time per day
- Daily
- 3-5 times a week
- Weekly
- 2-3 times a month or less

3. What is the most frequent purpose when you use ride-hailing service (Grab / Line Taxi)?

- Back Home
- Go to Workplace
- Roundtrip
- Travel
- Meet clients / Meeting
- Study / Go to university
- Others (Please specify):_____

4. What is the average fare per trip?

- Less than 50 baht
- 51-100 baht
- 101-150 baht
- More than 150 baht

Part 3: Specific questions:

Please specify the level of your agreement on the following statement. (Assessment scale: **Strongly Disagree = 1, Disagree = 2, Agree = 3, Strongly Agree = 4**)

1. Perceived Safety

Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
1. When commuting home at late night, I would consider to use Grab / Line Taxi more than traditional taxi services.				
2. When commuting from one to another place alone, I would consider				

to use Grab / Line Taxi more than traditional taxi services.				
3. When using Grab / Line Taxi services, I'm satisfied that the rides are tracked by GPS before and throughout the trip.				
4. It is important to me to be able to see the driver's name and car identity before taking the service.				
5. I feel safer travelling in Grab / Line Taxi services then traditional taxi services.				

2. Perceived Good Service

Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
1. It is important to me to see the driver rating and feedback before start taking the ride.				
2. It is important to me to rate the driver and give feedback before start taking the ride.				
3. I would consider using the ride-hailing service, if they provide the call center or customer service to take care of customers.				
4. I prefer to use the ride-hailing service (Grab / Line Taxi) as they are rarely rejected or refused customers unlike traditional taxis.				
5. I would prefer to use the ride-hailing service (Grab / Line Taxi) as				

they provide the cancellation policy to protect passengers.				

3. Perceived Convenience

Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I would prefer to use ride-hailing service when the application is easy to use				
2. I would prefer the ride or services that can shorten my waiting time.				
3. I would prefer the ride or services that allow me to pay both credit/debit card as well as cash				
4. I would prefer to use ride-hailing service, as it is able to access to almost every area of Bangkok urban.				

4. Perceived Rewards and Benefits

Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I always compare the price of taxi and ride-hailing services before making the decision.				
2. I consider switching to adopt ride-hailing service (Grab / Line Taxi), if there is always-on promotion or discount given.				

3. I am willing to adopt ride-hailing service (Grab / Line Taxi), if there is membership or loyalty program provided.				
4. I consider switching to adopt Grab or Line Taxi. If there is various types and size of car provided.				

5. Intention to use

Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I prefer to use ride-hailing services (Grab, Line Taxi and etc.) more than traditional taxis.				
2. I plan to use ride-hailing services (Grab, Line Taxi and etc.) more often in the future.				

Demographic questions:

1. What is your gender?

- Male
- Female

2. What is your age range?

- Below 18
- 18 – 24
- 25 – 34

- 35 – 44
- 45-60
- 60+

3.Where do you live?

- Bangkok
- Suburban area (Pathumthani, Nonthaburi, Samutprakarn, Samutsakorn, or Nakornpathom)

4. What is your occupation?

- Employed
- Unemployed
- Own Business
- Student
- Others...

5. What is your personal monthly income? (THB)

- Less than 20,000
- 20,001 - 40,000
- 40,001 - 60,000
- 60,001 - 80,000
- 80,001 – 100,000
- More than 100,000

Appendix B: The descriptive statistics between demographic and intention to use

4.2.1 Gender

	Gender	N	Mean	Sig.
When commuting home at late night, I would consider using a ride-hailing service more than traditional taxi services.	Male	42	3.17	0.001
	Female	80	3.6	
	Total	122	3.45	
When commuting from one to another place alone, I would consider using a ride-hailing service more than traditional taxi services.	Male	42	2.9	0.001
	Female	80	3.45	
	Total	122	3.26	
When using a ride-hailing service, I'm satisfied that the rides are tracked by GPS before and throughout the trip.	Male	42	3.67	0.34
	Female	80	3.56	
	Total	122	3.6	
It is important for me being able to see the driver's name and car identity before taking the service.	Male	42	3.48	0.412
	Female	80	3.36	
	Total	122	3.4	
I feel safer travelling in a ride-hailing service then traditional taxi services.	Male	42	3.67	0.185
	Female	80	3.53	
	Total	122	3.57	
It is important for me being able to see the driver rating and feedback before start taking the ride.	Male	42	3.1	0.32
	Female	80	2.94	
	Total	122	2.99	
It is important for me being able to rate the driver and give feedback after the ride.	Male	42	3.12	0.692
	Female	80	3.06	
	Total	122	3.08	
I would consider using the ride-hailing service, if they provide the Call Center or customer service to take care of customers.	Male	42	2.95	0.78
	Female	80	3	
	Total	122	2.98	
I would prefer to use the ride-hailing service as they are rarely rejected or	Male	42	3.67	0.208
	Female	80	3.5	

refused customers unlike traditional taxis.	Total	122	3.56	
I would prefer to use the ride-hailing service, as they provide the cancellation policy to protect passengers.	Male	42	3.64	0.216
	Female	80	3.49	
	Total	122	3.54	
I would prefer to use ride-hailing service when the application is easy to use.	Male	42	3.67	0.315
	Female	80	3.76	
	Total	122	3.73	
I would prefer the ride or services that can shorten my waiting time.	Male	42	3.76	0.617
	Female	80	3.71	
	Total	122	3.73	
I would prefer the ride or services that allow me to pay both credit/debit card as well as cash.	Male	42	3.69	0.802
	Female	80	3.66	
	Total	122	3.67	
I would prefer to use ride-hailing service, as it is able to access to almost every area of Bangkok and surrounding areas.	Male	42	3.71	0.251
	Female	80	3.59	
	Total	122	3.63	
I always compare the price of taxi and ride-hailing services before making the decision.	Male	42	2.86	0.819
	Female	80	2.81	
	Total	122	2.83	
I would consider switching to adopt ride-hailing service, if there is always-on promotion or discount given.	Male	42	3.45	0.127
	Female	80	3.65	
	Total	122	3.58	
I would consider to adopt ride-hailing service, if there is membership or loyalty program provided.	Male	42	3.29	0.539
	Female	80	3.38	
	Total	122	3.34	
I consider switching to adopt ride-hailing service. If there is various types and size of car provided.	Male	42	3.33	0.417
	Female	80	3.21	
	Total	122	3.25	

4.2.2 Age

	Age	N	Mean	Sig.
When commuting home at late night, I would consider using a ride-hailing service more than traditional taxi services.	18-24 years	17	3.18	0.166
	25-34 years	98	3.52	
	35-44 years	6	3.17	
	45-60 years	1	3	
	Total	122	3.45	
When commuting from one to another place alone, I would consider using a ride-hailing service more than traditional taxi services.	18-24 years	17	3.12	0.734
	25-34 years	98	3.31	
	35-44 years	6	3	
	45-60 years	1	3	
	Total	122	3.26	
When using a ride-hailing services, I'm satisfied that the rides are tracked by GPS before and throughout the trip.	18-24 years	17	3.53	0.81
	25-34 years	98	3.61	
	35-44 years	6	3.5	
	45-60 years	1	4	
	Total	122	3.6	
It is important for me being able to see the driver's name and car identity before taking the service.	18-24 years	17	3.47	0.822
	25-34 years	98	3.39	
	35-44 years	6	3.33	
	45-60 years	1	4	
	Total	122	3.4	
I feel safer travelling in a ride-hailing service then traditional taxi services.	18-24 years	17	3.53	0.85
	25-34 years	98	3.58	
	35-44 years	6	3.5	
	45-60 years	1	4	
	Total	122	3.57	
It is important for me being able to see the driver rating and feedback before start taking the ride.	18-24 years	17	2.94	0.455
	25-34 years	98	2.97	
	35-44 years	6	3.33	
	45-60 years	1	4	
	Total	122	2.99	

It is important for me being able to rate the driver and give feedback after the ride.	18-24 years	17	3.12	0.293
	25-34 years	98	3.04	
	35-44 years	6	3.5	
	45-60 years	1	4	
	Total	122	3.08	
I would consider using the ride-hailing service, if they provide the Call Center or customer service to take care of customers.	18-24 years	17	3.18	0.508
	25-34 years	98	2.94	
	35-44 years	6	3	
	45-60 years	1	4	
	Total	122	2.98	
I would prefer to use the ride-hailing service as they are rarely rejected or refused customers unlike traditional taxis.	18-24 years	17	3.24	0.082
	25-34 years	98	3.58	
	35-44 years	6	4	
	45-60 years	1	4	
	Total	122	3.56	
I would prefer to use the ride-hailing service, as they provide the cancellation policy to protect passengers.	18-24 years	17	3.41	0.253
	25-34 years	98	3.53	
	35-44 years	6	4	
	45-60 years	1	4	
	Total	122	3.54	
I would prefer to use ride-hailing service when the application is easy to use.	18-24 years	17	3.65	0.818
	25-34 years	98	3.74	
	35-44 years	6	3.67	
	45-60 years	1	4	
	Total	122	3.73	
I would prefer the ride or services that can shorten my waiting time.	18-24 years	17	3.88	0.557
	25-34 years	98	3.7	
	35-44 years	6	3.67	
	45-60 years	1	4	
	Total	122	3.73	
I would prefer the ride or services that allow me to pay both credit/debit card as well as cash.	18-24 years	17	3.59	0.873
	25-34 years	98	3.68	
	35-44 years	6	3.67	

	45-60 years	1	4	
	Total	122	3.67	
I would prefer to use ride-hailing service, as it is able to access to almost every area of Bangkok and surrounding areas.	18-24 years	17	3.35	0.072
	25-34 years	98	3.65	
	35-44 years	6	4	
	45-60 years	1	4	
	Total	122	3.63	
I always compare the price of taxi and ride-hailing services before making the decision.	18-24 years	17	3.24	0.145
	25-34 years	98	2.8	
	35-44 years	6	2.17	
	45-60 years	1	3	
	Total	122	2.83	
I would consider switching to adopt ride-hailing service, if there is always-on promotion or discount given.	18-24 years	17	3.71	0.006
	25-34 years	98	3.61	
	35-44 years	6	2.67	
	45-60 years	1	4	
	Total	122	3.58	
I would consider to adopt ride-hailing service, if there is membership or loyalty program provided.	18-24 years	17	3.41	0.553
	25-34 years	98	3.35	
	35-44 years	6	3	
	45-60 years	1	4	
	Total	122	3.34	
I consider switching to adopt ride-hailing service. If there is various types and size of car provided.	18-24 years	17	3.24	0.445
	25-34 years	98	3.27	
	35-44 years	6	3.33	
	45-60 years	1	2	
	Total	122	3.25	

4.2.3 Location

	Location	N	Mean	Sig.
When commuting home at late night, I would consider using a ride-hailing service more than traditional taxi services.	Bangkok	101	3.48	0.396
	Suburban	21	3.33	
	Total	122	3.45	
When commuting from one to another place alone, I would consider using a ride-hailing service more than traditional taxi services.	Bangkok	101	3.29	0.501
	Suburban	21	3.14	
	Total	122	3.26	
When using a ride-hailing services, I'm satisfied that the rides are tracked by GPS before and throughout the trip.	Bangkok	101	3.62	0.282
	Suburban	21	3.48	
	Total	122	3.6	
It is important for me being able to see the driver's name and car identity before taking the service.	Bangkok	101	3.4	0.852
	Suburban	21	3.43	
	Total	122	3.4	
I feel safer travelling in a ride-hailing service then traditional taxi services.	Bangkok	101	3.54	0.207
	Suburban	21	3.71	
	Total	122	3.57	
It is important for me being able to see the driver rating and feedback before start taking the ride.	Bangkok	101	2.93	0.074
	Suburban	21	3.29	
	Total	122	2.99	
It is important for me being able to rate the driver and give feedback after the ride.	Bangkok	101	3.04	0.169
	Suburban	21	3.29	
	Total	122	3.08	
I would consider using the ride-hailing service, if they provide the Call Center or customer service to take care of customers.	Bangkok	101	3.02	0.327
	Suburban	21	2.81	
	Total	122	2.98	
I would prefer to use the ride-hailing service as they are rarely rejected or refused customers unlike traditional taxis.	Bangkok	101	3.58	0.351
	Suburban	21	3.43	
	Total	122	3.56	
I would prefer to use the ride-hailing service, as they provide the cancellation policy to protect passengers.	Bangkok	101	3.57	0.222
	Suburban	21	3.38	
	Total	122	3.54	

I would prefer to use ride-hailing service when the application is easy to use.	Bangkok	101	3.69	0.077
	Suburban	21	3.9	
	Total	122	3.73	
I would prefer the ride or services that can shorten my waiting time.	Bangkok	101	3.73	0.882
	Suburban	21	3.71	
	Total	122	3.73	
I would prefer the ride or services that allow me to pay both credit/debit card as well as cash.	Bangkok	101	3.68	0.647
	Suburban	21	3.62	
	Total	122	3.67	
I would prefer to use ride-hailing service, as it is able to access to almost every area of Bangkok and surrounding areas.	Bangkok	101	3.63	0.917
	Suburban	21	3.62	
	Total	122	3.63	
I always compare the price of taxi and ride-hailing services before making the decision.	Bangkok	101	2.84	0.746
	Suburban	21	2.76	
	Total	122	2.83	
I would consider switching to adopt ride-hailing service, if there is always-on promotion or discount given.	Bangkok	101	3.59	0.668
	Suburban	21	3.52	
	Total	122	3.58	
I would consider to adopt ride-hailing service, if there is membership or loyalty program provided.	Bangkok	101	3.33	0.578
	Suburban	21	3.43	
	Total	122	3.34	
I consider switching to adopt ride-hailing service. If there is various types and size of car provided.	Bangkok	101	3.29	0.305
	Suburban	21	3.1	
	Total	122	3.25	

4.2.4 Occupation

	Occupation	N	Mean	Sig.
When commuting home at late night, I would consider using a ride-hailing service more than traditional taxi services.	Employed	92	3.5	0.248
	Unemployed	3	3.33	
	Own Business	10	3.5	
	Student	15	3.27	
	Freelance	2	2.5	
	Total	122	3.45	
When commuting from one to another place alone, I would consider using a ride-hailing service more than traditional taxi services.	Employed	92	3.28	0.116
	Unemployed	3	2	
	Own Business	10	3.1	
	Student	15	3.47	
	Freelance	2	3.5	
	Total	122	3.26	
When using a ride-hailing services, I'm satisfied that the rides are tracked by GPS before and throughout the trip.	Employed	92	3.66	0.11
	Unemployed	3	3	
	Own Business	10	3.3	
	Student	15	3.53	
	Freelance	2	3.5	
	Total	122	3.6	
It is important for me being able to see the driver's name and car identity before taking the service.	Employed	92	3.4	0.367
	Unemployed	3	3	
	Own Business	10	3.2	
	Student	15	3.67	
	Freelance	2	3	
	Total	122	3.4	
I feel safer travelling in a ride-hailing service then traditional taxi services.	Employed	92	3.6	0.167
	Unemployed	3	4	
	Own Business	10	3.3	
	Student	15	3.6	
	Freelance	2	3	
	Total	122	3.57	

It is important for me being able to see the driver rating and feedback before start taking the ride.	Employed	92	3.02	0.847
	Unemployed	3	2.67	
	Own Business	10	2.9	
	Student	15	3	
	Freelance	2	2.5	
	Total	122	2.99	
It is important for me being able to rate the driver and give feedback after the ride.	Employed	92	3.09	0.993
	Unemployed	3	3	
	Own Business	10	3	
	Student	15	3.13	
	Freelance	2	3	
	Total	122	3.08	
I would consider using the ride-hailing service, if they provide the Call Center or customer service to take care of customers.	Employed	92	2.98	0.945
	Unemployed	3	3	
	Own Business	10	3.1	
	Student	15	3	
	Freelance	2	2.5	
	Total	122	2.98	
I would prefer to use the ride-hailing service as they are rarely rejected or refused customers unlike traditional taxis.	Employed	92	3.58	0.313
	Unemployed	3	4	
	Own Business	10	3.6	
	Student	15	3.27	
	Freelance	2	4	
	Total	122	3.56	
I would prefer to use the ride-hailing service, as they provide the cancellation policy to protect passengers.	Employed	92	3.58	0.879
	Unemployed	3	3.33	
	Own Business	10	3.4	
	Student	15	3.47	
	Freelance	2	3.5	
	Total	122	3.54	
I would prefer to use ride-hailing service when the application is easy to use.	Employed	92	3.74	0.835
	Unemployed	3	3.67	
	Own Business	10	3.6	

	Student	15	3.8	
	Freelance	2	3.5	
	Total	122	3.73	
I would prefer the ride or services that can shorten my waiting time.	Employed	92	3.74	0.648
	Unemployed	3	3.33	
	Own Business	10	3.7	
	Student	15	3.8	
	Freelance	2	3.5	
	Total	122	3.73	
I would prefer the ride or services that allow me to pay both credit/debit card as well as cash.	Employed	92	3.68	0.321
	Unemployed	3	3	
	Own Business	10	3.7	
	Student	15	3.67	
	Freelance	2	4	
	Total	122	3.67	
I would prefer to use ride-hailing service, as it is able to access to almost every area of Bangkok and surrounding areas.	Employed	92	3.62	0.625
	Unemployed	3	4	
	Own Business	10	3.7	
	Student	15	3.53	
	Freelance	2	4	
	Total	122	3.63	
I always compare the price of taxi and ride-hailing services before making the decision.	Employed	92	2.72	0.238
	Unemployed	3	2.67	
	Own Business	10	3.1	
	Student	15	3.27	
	Freelance	2	3.5	
	Total	122	2.83	
I would consider switching to adopt ride-hailing service, if there is always-on promotion or discount given.	Employed	92	3.58	0.529
	Unemployed	3	3	
	Own Business	10	3.6	
	Student	15	3.67	
	Freelance	2	4	
	Total	122	3.58	

I would consider to adopt ride-hailing service, if there is membership or loyalty program provided.	Employed	92	3.37	0.2
	Unemployed	3	2.33	
	Own Business	10	3.4	
	Student	15	3.4	
	Freelance	2	3	
	Total	122	3.34	
I consider switching to adopt ride-hailing service. If there is various types and size of car provided.	Employed	92	3.18	0.15
	Unemployed	3	3	
	Own Business	10	3.8	
	Student	15	3.4	
	Freelance	2	3	
	Total	122	3.25	

4.2.5 Income

	Income	N	Mean	Sig.
When commuting home at late night, I would consider using a ride-hailing service more than traditional taxi services.	Less than 20,000	17	3.12	0.174
	20,001 - 40,000	34	3.47	
	40,001 - 60,000	39	3.64	
	60,001 - 80,000	13	3.38	
	80,001 - 100,000	11	3.45	
	More than 100,000	8	3.25	
	Total	122	3.45	
When commuting from one to another place alone, I would consider using a ride-hailing service more than traditional taxi services.	Less than 20,000	17	3.24	0.866
	20,001 - 40,000	34	3.18	
	40,001 - 60,000	39	3.38	
	60,001 - 80,000	13	3.38	
	80,001 - 100,000	11	3.09	
	More than 100,000	8	3.13	
	Total	122	3.26	
When using a ride-hailing services, I'm satisfied that the rides are tracked by GPS before and throughout the trip.	Less than 20,000	17	3.59	0.949
	20,001 - 40,000	34	3.53	
	40,001 - 60,000	39	3.67	

	60,001 - 80,000	13	3.62	
	80,001 - 100,000	11	3.55	
	More than 100,000	8	3.63	
	Total	122	3.6	
It is important for me being able to see the driver's name and car identity before taking the service.	Less than 20,000	17	3.59	0.557
	20,001 - 40,000	34	3.47	
	40,001 - 60,000	39	3.41	
	60,001 - 80,000	13	3.15	
	80,001 - 100,000	11	3.18	
	More than 100,000	8	3.38	
	Total	122	3.4	
I feel safer travelling in a ride-hailing service then traditional taxi services.	Less than 20,000	17	3.65	0.086
	20,001 - 40,000	34	3.56	
	40,001 - 60,000	39	3.67	
	60,001 - 80,000	13	3.15	
	80,001 - 100,000	11	3.55	
	More than 100,000	8	3.75	
	Total	122	3.57	
It is important for me being able to see the driver rating and feedback before start taking the ride.	Less than 20,000	17	2.94	0.311
	20,001 - 40,000	34	2.97	
	40,001 - 60,000	39	3	
	60,001 - 80,000	13	2.92	
	80,001 - 100,000	11	2.73	
	More than 100,000	8	3.63	
	Total	122	2.99	
It is important for me being able to rate the driver and give feedback after the ride.	Less than 20,000	17	3.12	0.028
	20,001 - 40,000	34	2.88	
	40,001 - 60,000	39	3.21	
	60,001 - 80,000	13	3.23	
	80,001 - 100,000	11	2.64	
	More than 100,000	8	3.63	
	Total	122	3.08	
	Less than 20,000	17	3.29	0.295

I would consider using the ride-hailing service, if they provide the Call Center or customer service to take care of customers.	20,001 - 40,000	34	2.76	
	40,001 - 60,000	39	2.97	
	60,001 - 80,000	13	2.85	
	80,001 - 100,000	11	3.09	
	More than 100,000	8	3.38	
	Total	122	2.98	
I would prefer to use the ride-hailing service as they are rarely rejected or refused customers unlike traditional taxis.	Less than 20,000	17	3.29	0.013
	20,001 - 40,000	34	3.29	
	40,001 - 60,000	39	3.69	
	60,001 - 80,000	13	3.77	
	80,001 - 100,000	11	3.73	
	More than 100,000	8	4	
	Total	122	3.56	
I would prefer to use the ride-hailing service, as they provide the cancellation policy to protect passengers.	Less than 20,000	17	3.41	0.016
	20,001 - 40,000	34	3.26	
	40,001 - 60,000	39	3.62	
	60,001 - 80,000	13	3.77	
	80,001 - 100,000	11	3.73	
	More than 100,000	8	4	
	Total	122	3.54	
I would prefer to use ride-hailing service when the application is easy to use.	Less than 20,000	17	3.88	0.332
	20,001 - 40,000	34	3.76	
	40,001 - 60,000	39	3.77	
	60,001 - 80,000	13	3.54	
	80,001 - 100,000	11	3.55	
	More than 100,000	8	3.63	
	Total	122	3.73	
I would prefer the ride or services that can shorten my waiting time.	Less than 20,000	17	3.82	0.798
	20,001 - 40,000	34	3.74	
	40,001 - 60,000	39	3.74	
	60,001 - 80,000	13	3.54	
	80,001 - 100,000	11	3.73	
	More than 100,000	8	3.75	

	Total	122	3.73	
I would prefer the ride or services that allow me to pay both credit/debit card as well as cash.	Less than 20,000	17	3.59	0.292
	20,001 - 40,000	34	3.53	
	40,001 - 60,000	39	3.85	
	60,001 - 80,000	13	3.62	
	80,001 - 100,000	11	3.73	
	More than 100,000	8	3.63	
	Total	122	3.67	
I would prefer to use ride-hailing service, as it is able to access to almost every area of Bangkok and surrounding areas.	Less than 20,000	17	3.59	0.841
	20,001 - 40,000	34	3.59	
	40,001 - 60,000	39	3.67	
	60,001 - 80,000	13	3.62	
	80,001 - 100,000	11	3.55	
	More than 100,000	8	3.88	
	Total	122	3.63	
I always compare the price of taxi and ride-hailing services before making the decision.	Less than 20,000	17	3.18	0.097
	20,001 - 40,000	34	3	
	40,001 - 60,000	39	2.85	
	60,001 - 80,000	13	2.69	
	80,001 - 100,000	11	2.18	
	More than 100,000	8	2.38	
	Total	122	2.83	
I would consider switching to adopt ride-hailing service, if there is always-on promotion or discount given.	Less than 20,000	17	3.65	0
	20,001 - 40,000	34	3.71	
	40,001 - 60,000	39	3.79	
	60,001 - 80,000	13	3.38	
	80,001 - 100,000	11	3.18	
	More than 100,000	8	2.75	
	Total	122	3.58	
I would consider to adopt ride-hailing service, if there is membership or loyalty program provided.	Less than 20,000	17	3.29	0.58
	20,001 - 40,000	34	3.44	
	40,001 - 60,000	39	3.38	
	60,001 - 80,000	13	3.31	

	80,001 - 100,000	11	3.36	
	More than 100,000	8	2.88	
	Total	122	3.34	
I consider switching to adopt ride-hailing service. If there is various types and size of car provided.	Less than 20,000	17	3.18	0.67
	20,001 - 40,000	34	3.24	
	40,001 - 60,000	39	3.41	
	60,001 - 80,000	13	3	
	80,001 - 100,000	11	3.18	
	More than 100,000	8	3.25	
	Total	122	3.25	