



CUSTOMER SATISFACTION AND WORD OF MOUTH  
TOWARD ONLINE TAXI PROVIDERS: A CASE STUDY OF  
GRAB AND UBER

By  
CHATBONGKOT CHEEWATHANAKORNKUL

Submitted in Partial Fulfillment of the Requirements for the Degree of  
MASTER OF SCIENCE IN SUPPLY CHAIN MANAGEMENT

Martin de Tours School of Management  
Assumption University  
Bangkok, Thailand

April, 2018

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Submitted in Partial Fulfillment of the Requirements for the Degree of Master of  
Science in Supply Chain Management  
Assumption University

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### Declaration of Authorship Form

I, Chatbongkot Cheewathanakornkul declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

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**ADVISOR'S STATEMENT**

I confirm that this thesis has been carried out under my supervision and it represents the original work of the candidate.

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Chatbongkot Cheewathanakornkul

Assumption University

April, 2018



## ABSTRACT

The first objective of this thesis is to analyze the factors influencing customer satisfaction including, service quality, self-service technology and price. These factors are believed to be the main factors influencing customer satisfaction. Without one of these factors, the customers might not fully be satisfied with the services of online taxi providers. The second objective is to examine the relationship between customer satisfaction and word of mouth.

This research uses Yamane's theory to determine the sample size. Reliability and Factor Analysis have been tested. The results have achieved the standard. Service Quality (Tangible, Reliability, Responsiveness, Assurance and Empathy), Self Service Technology, Perceived Price Fairness and Estimated Waiting Time are related to Customer Satisfaction and Customer Satisfaction is related to Word of Mouth. The result based on a questionnaire which respondents are GRAB and UBER users who live in Bangkok and provinces nearby. Hypothesis of this research is related to information factors that would lead to Satisfaction and Word of Mouth including Demographic Background.

From the results of this research, it shows that Service Quality (Tangible, Reliability, Responsiveness, Assurance and Empathy), Self Service Technology, Perceived Price Fairness are related to Customer Satisfaction. So, the companies should focus on these points to increase their service in the eyes of customers. The younger customers tend to perceive Assurance and Self Service Technology higher than the other age groups. From the result, the company should focus more on the older generation which perceive satisfaction lesser. The companies also should also focus more on customers who pay by cash since this group of customers perceive satisfaction lower than customers who pay by credit card or other methods such as Grab Pay.

Moreover, the companies use safety as their strength because younger customers and customers who use the service at night perceive Satisfaction the highest. The platform

of application is also important since older customers perceive satisfaction lower in Self Service Technology part. The reliability of drivers and service teams are also the good part of satisfaction.

However, there is no significant relationship between Demographic Background such as Gender and Age and Satisfaction. So, the companies do not need to focus much on these points.





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Form signed by Proofreader of the Project

I, Mrs. Mary Bien Catalan, have proofread this project entitled CUSTOMER SATISFACTION AND WORD OF MOUTH TOWARD ONLINE TAXI PROVIDERS: A CASE STUDY OF GRAB AND UBER, and hereby certify that the verbiage, spelling and format is commensurate with the quality of internationally acceptable writing standards for a master degree in supply chain management.

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Date April 27 2018

## CHAPTER I

### GENERALITIES OF THE STUDY

It can be said that technology has been used by people since it was invented. Almost everyone now has his or her own mobile phone. At a very young age, children start using mobile phone. At an old age, people learn how to use the mobile phone, too. Mobile phone has become a part of human's life; no one would deny. Mobile phones come with many new technologies making people's life easier. Online taxi is one of the applications which have been developed for taxi users. Users can call taxi from their mobile phones with only a few steps.

#### 1.1 Background of the Research

Almost everyone in Bangkok must have used taxi services before. It is one of the easiest ways to commute around. When the passenger is not familiar with the route, taxi is the best way. Taxi is also very convenient and private. There is no need to be packed on the bus, boat, Bangkok Mass Transit System (BTS) or Mass Rapid Transit (MRT). The passenger can be the only one in the taxi and sit comfortably. At a very late night or early morning when buses are not available, taxis are the option for those with no private cars.

GRAB is first used in Malaysia and have been popular in South East Asia. GRAB offers various functions to users such as GRAB taxi, GRAB car and GRAB bike. UBER is invented in United States. The functions of these two applications are quite the same. However, when GRAB and UBER first joined Thai market, there were some difficulties in working together with local taxis and these problems are still going on until now. Since GRAB and UBER have been introduced, calling for a taxi service is easier. Passengers can call for a taxi from their current location. It can be from inside a village,

parking lot or isolated building. With an estimated waiting time, the passengers would know when they will be picked up. The applications would also show the estimated fare and riding time, so the passengers can plan ahead their later actions. GRAB and UBER are now quite well known in Thailand. The applications themselves also have other functions for users to explore, such as food ordering and parcel delivery.

From author's experience, GRAB currently has more functions for users to explore more than UBER and the price is cheaper. However, the service of UBER is better. UBER's vehicles are newer and more comfortable but it comes with expensive fair.

## **1.2 Statement of the Problems**

Thailand's taxi users and the drivers have been in deep troubles for a long time now. Users claim that they do not receive good services from the drivers, while the drivers do not seem to care.

The most common heard problem is taxis are choosing where they would like to go. If the destination of customer is not where they are going, they reject the customer. Since GRAB and UBER have started their business in Thailand, bad services from them are lower compared to normal taxis.

However, the normal taxi drivers are against these two applications. Recently, the problems have become more severe because taxi drivers are protesting against the online applications. They claim that they are losing their job and profit. This issue is quite big and the government is also involved. Therefore, the research question of this study is what are the factors that affect customer satisfaction and word of mouth of online taxi providers in Thailand?

### 1.3 Research Objectives

The first objective of this thesis is to analyze the factors influencing customer satisfaction including, service quality, self-service technology, estimated waiting time and perceived price fairness. These factors are believed to be the main factors influencing customer satisfaction. Without one of these factors, the customers might not fully be satisfied with the services of online taxi providers.

The second objective is to examine the relationship between customer satisfaction and word of mouth. Customers who are satisfied with the services might recommend to others to use more than those who feel average with the services. Unsatisfied customers might keep quiet about the services or they might spread their bad experiences to others. This thesis has aimed to find the relationship between these independent variables and dependent variables.

The last objective of this study is to investigate the trend of online taxi users. It is interesting to know who the regular passengers of online taxi providers are, what makes them loyal passengers and whether or not they recommend these online services to others.

### 1.4 Scope of the Research

The study has focused on the factors influencing customer satisfaction and word of mouth from people who use GRAB and UBER services in Bangkok and in the provinces nearby. The target groups to answer the questions were those who have used both GRAB and UBER services, in order to compare how good these two applications are in servicing their customers. The research is questionnaire base focusing on the respondents who frequently use taxi. The target groups are taxi users who live in Bangkok and use the service of online taxi providers in their everyday life. The questionnaire using 5-point Likert scale ranging from strongly disagree (1) to strongly

agree (5), was developed to examine the hypotheses in this research. Questionnaires were distributed by the researcher through online social network.

### **1.5 Significance of the Research**

On the passenger's point of view, knowing which of the factors affects customer satisfaction is beneficial. Passengers would have more negotiating power and ideas on how major online taxi providers are doing for their businesses.

The research would benefit academically on how each concepts in this research are linking together. The findings of this research will explain the relationship among concepts in Thai context that were already explained in previous studies in other countries

Moreover, the online application of transportation is investigated in terms of its service quality, self-service technology, estimate waiting time, perceived price fairness, customer satisfaction and word of mouth. The application of findings will help service providers to understand Thai customers better in these area of their perception such as factors of satisfaction and word of mouths.

### **1.6 Limitations of the Research**

People who own car would use taxi less, so people without car were the target group for this research. Also, people with car but do not wish to use their own car for some reasons were the target group.

Not everyone knows how to use smartphone, so the limitation is the generation. The group of users was from the new generation who knows how to use smartphone and applications. However, people without smartphone are not able to use the applications.



GRAB and UBER are only available in Bangkok and in the provinces nearby, so people from the rural areas are not able to test these applications.

### 1.7 Definition of Terms

Customer Satisfaction	Customer satisfaction is the measure of how well the company can deliver and respond to customer needs. Customer satisfaction can only be measured when the customer is satisfied with products or services. In today's business, customer satisfaction performance is one of the most important factors in company's strategies. (Roger Hallowell, 1996).
Perceived Price Fairness	How customer compares both monetary and non-monetary cost of using products and services (Bolton et al., 2003; Campbell, 1999; Vaidyanathan & Aggarwal, 2003, and Xia et al., 2004).
Self-Service Technology (SST)	The new technology which allows customer to produce the service without employee's involvement. Nowadays, SST is taking the place of face-to-face services. It is believed that using SST would reduce the error in making transaction, more convenient, and less time consuming. (Cronnin et al., 2000; Debrzykowski et al. 2014).
SERVQUAL	SERVQUAL or service quality is a research instrument used to examine customer satisfaction against expectations of services they have used. The research has examined five points including tangibility, reliability, responsiveness, assurance, and empathy. (Parasuraman et al., 2005).

## Word of Mouth

The passing of information that one has experienced to another which may have experienced the same thing or never experienced it before. WOM is informal. It can either be positive or negative depending on the one spreading it. (Tax et al., 1993).

### 1.8 Chapter Summary

In conclusion, this study is aimed to find the factors influencing customer satisfaction and word of mouth toward online taxi providers. Another question to answer is, “Does satisfaction lead to word of mouth?” Since people nowadays are not quite happy with the services of normal taxi, services of online taxi providers are another option. As these online taxi drivers would accept most of the passengers, passengers are happier than with the normal taxi drivers. These applications provide passengers for GRAB and UBER drivers most of the time, so the drivers are happier, too than the normal taxi drivers.

## **CHAPTER II**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 SERVQUAL**

Parasuraman, Valarie Zeithaml and Leonard L. Berry (1988) defined SERVQUAL as a research instrument used to examine customer satisfaction against expectations of services they have used. The research has examined five points including tangibility, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 2005).

As a service measurement, SERVQUAL is used to evaluate the service which would involve the comparison between what customer was expecting and what have been delivered by the company. In order to examine the service to be excellent, good, or bad, it would depend on customer satisfaction toward the products or services. (Parasuraman et al., 1985).

- (a) When the expected service (ES) is higher than perceived service (PS), the satisfaction will be lower and will lead to dissatisfaction in service quality. The higher the gap between ES and PS, the higher the dissatisfaction level will be. (b) When ES is equal to PS, customer would not feel special nor bad with the service received. (c) When PS is higher than ES, the satisfaction level would be high as the service has exceeded the expectation.

The concept of SERVQUAL is developed from the model of Parasuraman and is used widely to measure customer experience in service industry. The concept measures the gap between customer expectation and what have been delivered. SERVQUAL includes five dimensions which are tangibility, reliability, responsiveness, assurance, and empathy.

However, some researchers were not agreeing with SERVQUAL and have questioned its ability to perform service quality measurement. Therefore, another model called SERVPERF has been created by Cronin and Taylor, (1992). As of now, the model of SERVQUAL is still widely used by academics and practitioners to measure service quality. (Lam & Woo, 1997; Buttle, 1996; Crosby & LeMay, 1998).

According to Parasuraman et al., (1991), SERVQUAL is a generic instrument with good reliability and validity and broad applicability. The purpose of SERVQUAL is to serve as a diagnostic methodology for uncovering broad areas of a company's service quality shortfalls and strengths. SERVQUAL's dimensions and items represent core evaluation criteria that transcend specific companies and industries. In accordance with this view, SERVQUAL has been used to measure service quality in a variety of service industries, including:

- The healthcare sector (Carman, 1990; Headley and Miller, 1993; Lam, 1997; Kilbourne et al., 2004)
- Banking (Mels et al., 1997; Lam, 2002; Zhou et al., 2002)
- Fast food (Lee and Ulgado, 1997)
- Telecommunications (van der Wal et al., 2002)
- Retail chains (Parasuraman et al., 1994)
- Information systems (Jiang et al., 2000)
- Library services (Cook and Thompson, 2000)

SERVQUAL has also been applied in several countries, including

- The USA (Pitt et al., 1995; Jiang et al., 2000; Kilbourne et al., 2004; Lai, 2006; Landrum et al., 2007)
- China (Lam, 2002; Zhou et al., 2002)
- Australia (Baldwin and Sohal, 2003)
- Cyprus (Arasli et al., 2005)
- Hong Kong (Kettinger et al., 1995; Lam, 1997)
- Korea (Kettinger et al., 1995)
- South Africa (Mels et al., 1997; Pitt et al., 1995; van der Wal et al., 2002)
- The Netherlands (Kettinger et al., 1995)

- The UK (Pitt et al., 1995; Kilbourne et al., 2004; Lai, 2006). According to Arasli et al. (2005)

### 2.1.1 Tangibility

Tangibility means tangible items that customer can obviously see. It can be the appearance of facilities or tools. It can also be the equipment used to provide service. Moreover, the appearance of employee is also a part of tangibility.

In service marketing literature, tangibility and intangibility have been largely discussed in terms of identifying intangible services that are assumed to be tangible assets. Early marketing scholars have tried to separate service marketing from mainstream marketing literature. This is because traditional marketing literature does not address many of the problems commonly encountered by service companies (Rathmell, 1966, Shostack, 1977). Attempts to distinguish services from goods have been involved in characterizing services in relation to intangibles, heterogeneity, indivisibility, and perishability (also known as IHIP characteristics) (Bateson, 1977; Edgett& Parkinson, 1993; Zeithaml, 1981; Zeithaml et al. In 1985, of these, intimacy was often cited as the most important (Groenroos, 1978; Mittal, 1999).

In traditional service marketing perspectives, services are intangible and goods are tangible (Berry, 1980; Bebeko, 2000; Edgett& Parkinson, 1993; Zeithaml et al., 1985). However, this point of view did not provide the difference between what tangible and intangible are offering. Rather, some sacrifices insisted on an intangible continuum that contained more intangibles or tangibles than others (Shostack, 1977). Rathmell, (1966) indicated that literature has treated intangibility as a problem. It is because it leads to inability to make comparisons between services (Martí'n-Ruiz & Ronda'n-Cataluña, 2008), consumer risk (Blois, 1974; Laroche et al., 2004), the lack of expectations, and uncertainty of outcome (Rathmell, 1966).



## **Perceptions toward tangible and intangible offerings and their effects on user experiences**

Consumer experience in service marketing is related to the interaction between customer and company (Solomon et al., 1985). In face to face situation, customer evaluates the service while interacting with the provider, such as sitting in a bar at a salon or taking a trip (Moeller, 2010). Dube and Le Bel (2003) identified four sensory which are emotional, social and intellectual sources of experience. Sensory and emotional impacts were also perceived by Holbrook and Hirschman (1982). The researches showed that customers judge the service using their senses, images and emotions. Sensory includes taste, smell, touch and listening which are related to tangibility, emotional, social, and interaction the customer experiences or events would later affect the later buying experience (Braun, 1999). Groenroos (1978) suggested that consumers might want a thorough service assessment, but that service results can be difficult because they are intangible. As a result, consumers tend to "evaluate what they can do" (Groenroos, 1978). In other words, there are types such as service cape or manpower.

It is suggested that intangibility can positively or negatively affect user's experience. On the other hand, researchers argued that because what tangible is providing is subordinated to consumers' senses, they can rely heavily on consumers' emotions, or vague beliefs about offerings (Levitt, 1981). Therefore, intangibles are likely to be opened for use in experiences that are closer to oneself (Carter & Gilovich, 2012). Carter & Gilovich (2012) argued that "intangibles" are more related to self than to product tangibility because "more than anything" is related to "do" Belk (1988).

On the other hand, just as intangibles can cause a positive use experience, they can also cause negative things. Researchers pointed out that consumers need to know their own roles and switching or sharing roles with suppliers would later create difficulty (Grove & Fisk, 1992; Solomon et al., 1985). Levitt (1981) claimed that tangibility is related to sensation. So, it would be a benefit to suppliers to help their customers on how to use the products (Bloch, 1995; Creusen & Schoormans, 2005; Warlop et al., 2005).

In conclusion, tangibility will affect the manner in which consumers use and perceive the product, and the intangibility has a greater impact on the consumer's interpretation. Intangibles can affect the consumer's experience in either a positive or negative way. Examples of types elements are "keep up to date"; "physical facilities are visually appealing" ;and "materials are visually appealing". These aspects can be more important in e-business because there is no communication between them. The visual aspect of a device (for example, a website) is the only visual contact between a customer and an organization. Therefore, it is most important to have a website that works well and looks good. As Hager & Elliot (2001) have examined, before, many customers stopped using online shopping or web service because they were not good enough at technology and felt frustrated when using it.

The view of a website is judged by people differently according to age. Younger people may like gorgeous graphics, sounds and high-speed interfaces, but the elderly do not want blinking inconspicuous text or animations that interfere with their use of the website (Houtman, 2002).

### 2.1.2 Reliability

Parasuraman, Zeithaml et al. (SERVQUAL) defined the reliability of the service as the ability to provide the promised service accurately and reliably in an offline environment (1988). In case of online business, the reliability of the service is defined as the reliability of the performance. This means that the business must provide the promised service accurately. Zeithmal, Parasuraman et al. (2002) suggested that the reliability of electronic services includes accurate technical features on websites and accurate description of service obligations, billing and product information. This definition is widely used. Wolfinbarger and Gilly (2003) suggested that the reliability of electronic services should include technical reliability and functional reliability. As reliability and technical reliability of function, and re-define the reliability of the online service. Boshoff (2007) found that the reliability of online services requires two proxies,

fulfillment and system availability. System availability is a high order item including reliability and reliability on the site.

'Service reliability' is therefore an element of service quality studied by both groups of researchers - those that have developed the SERVQUAL framework (Parasuraman, Zeithaml, and Berry, 1985; 1988), as well as Fomell and his collaborators (Fomell, 1992; Fomell et al., 1996). SERVQUAL research has however provided greater discussion of service reliability, driven by its consistent finding that among the proposed five dimensions of service quality, reliability is the most important to customers (e.g. Berry & Parasuraman, 1991). 'Service customization' is the other quality element proposed by Fomell and his collaborators (Fomell, 1992; Fomell et al., 1996) has also been modeled in SERVQUAL through the dimensions of 'assurance', 'empathy' and 'responsiveness'. The ability of the service provider to perform well on these quality dimensions has been shown to personalize the experience through one-on-one caring and individualized attention to customers (Mittal & Lassar, 1996; Bettencourt & Gwinner, 1996). Mittal and Lassar (1996) for instance, demonstrated that for the people, intensive service, such as healthcare, the SERVQUAL dimensions of assurance, empathy, and responsiveness loaded together onto a single construct, could be viewed as a 'customization'. Support for the two-dimensional view of quality is also found in other research (e.g. Johnson & Nilsson, 2001), wherein it has been proposed that the specific quality dimensions that drive customer satisfaction and loyalty could be argued to be many and varied (e.g. Parasuraman, Zeithaml, & Berry, 1985).

In a research related to the SERVQUAL model (Parasuraman, Zeithaml, & Berry, 1985; 1988), reliability has been defined as the ability to provide the service dependably, accurately, and consistently (Berry, Zeithaml, & Parasuraman, 1990; Parasuraman, Berry, & Zeithaml, 1991; Berry & Parasuraman, 1991). It is viewed as the service equivalent of a "zero defects culture" popular in manufacturing firms, i.e. performing (the service) right the first time. Under such a perspective, the proof of reliability is proposed to come from its flawless performance (Berry & Parasuraman, 1991). For instance, customers are seen to judge reliability from whether or not the problem is fixed the first time and on time at a car repair facility, from the on-time

arrival and departure of flights, and from the accuracy of medical diagnosis in a hospital unit.

Berry and Parasuraman, (1991) found that in a manufacturing atmosphere, the ability to manufacture reliable goods depends on process management, statistical controls and regular monitoring. All of these functions work diligently to provide donations that match the standards set for your needs. However, in the case of services, it is a source of confidence in the use of others in the value of providing evidence of right and wrong offenses. These service characteristics also introduce a discrepancy between reliability as defined by the service provider and as defined by individual customers (Berry & Parasuraman, 1991).

In the past research, the main thrust for the importance of service reliability in effecting overall service customer evaluations came from SERVQUAL research. Such research has been observed consistently that of the five proposed domains of service quality, 'reliability' has the greatest impact of overall service evaluations. For example, in an empirical analysis reported across four industries (Berry, Parasuraman, & Zeithaml, 1988), customers gave extremely high importance to the 'reliability' dimension of SERVQUAL (a self-reported importance score of approximately 9.5 out of 10), with more than half the customers ranking 'reliability' as the most important dimension. Similarly, Berry, Zeithaml, and Parasuraman (1990) observed that across nine customer samples, respondents rated reliability as the single most important feature (among the five SERVQUAL dimensions) in judging service quality. Similar observations have been made in other SERVQUAL researches (Zeithaml, Parasuraman, & Berry, 1990; Parasuraman, Berry & Zeithaml, 1991; Berry & Parasuraman, 1991) towards supporting the importance of reliability to service customers. Inability to do what the firm is supposed to do is seen to make customers lose confidence in what the organization promises to do dependably and accurately, as well as in the organization itself.

Certain aspects of the reliability factor are related to "performing what is promised" and "performing at the appointed time". Many companies understand that customers



shop online because it is cheaper, but it is not the only reason. There are many customers who shop online because it is more convenient (Riseley & Schehr, 2000). If the customers do not trust the organization to perform what they have requested, the customer complains. For example, Priceline focused on the lowest price, so there was a big problem by the end of 2000. People were able to buy air tickets at a very low price, but there was a great risk to customers due to inconvenient flight times. This has resulted in dissatisfied customers who were satisfied with the price line discount for the convenience of competitors (Riseley & Schehr, 2000).

### **2.1.3 Responsiveness**

One aspect of the response element is "instant service delivery". The time that website or application takes to download and the web page are very important for Internet users. According to a 1999 study, people would not leave the web page if the response time is lower than 7 seconds, but 30% of users leave at 8 seconds or more. If the delay exceeds 12 seconds, 70% of users leave the website (Cox & Dale, 2001, 2002).

The trade-off between appearance and speed is complicated by the company's need for a website to deliver corporate images (Manning et al., 1998). The company's website developer would definitely want the web page to be attractive by adding logo or graphic to emphasize the company's identity. However, these add-ons are the factors making the website's loading time longer. So, it depends on the company which one would suit them better.

For example, Greenley (1995), Narver and Slater (1990), and Sin et al. (2000) suggested that a company might face different performance effects of customer orientation depending on the market context and dynamics of the competitive environment. For commodity businesses, changing in market would have moderate performance which has negative effects since it is harder to adapt the business with changing market. Conversely, it was found that market change reinforces performance effects of customer orientation for non-commodity businesses.

#### 2.1.4 Assurance

As a SERVQUAL dimension, assurance is defined as the “knowledge and courtesy of employees and their ability to inspire trust and confidence” (Parasuraman et al., 1988).

One aspect of the warranty element is "knowledge" to answer questions. Obviously, most customers would like to be able to find everything they want on website. On the other hand, people in brick and mortar shops would feel better with limited stock. On the internet, people would be unsatisfied if they cannot find something they are looking for. Therefore, web store requires effective inventory control system and sufficient information (Dayal et al., 2002).

Second, according to the same study, around two-thirds of Web users gave up on sites requesting personal information, and one-fifth entered incorrect information to access websites. According to Daughtrey, (2001), factors for assurance that can be important in e-business include the following:

- Privacy and confidentiality policies for websites are available
- Secure access to the website (customer prompts to approve)
- Reliability of suppliers
- Warranty or guarantee of warranty
- Feedback from other customers.

It was because people felt insecure sharing personal information via unknown website, a study by Statistical Research Inc., (2001) found that more than 50% of the users were aware of misuse of credit card information. It is possible that the company sells its personal information or cookies to track its internet browsing activities.

Psychological safety happens when people are able to show and employ themselves without negative consequences. When the environment is safety, people would show their real behavior (Kahn, 1992). Edmonson (2004) found that psychological safety develops from positive shared experiences.



Certifications and Warranties are also important in e-business. As more and more organizations have previously done quality management standards (Daughtrey, 2001), they seek to obtain certification through objective, consensus-based standards.

### **2.1.5 Empathy**

According to Cook, Macaulay, and Coldicott, (2004), empathy as a SERVQUAL dimension is “the ability to tune into others’ feelings. It is considered as an emotional intelligence competency which is “a set of skills hypothesized to contribute the accurate appraisal and expression of emotion in oneself and in others, the effective regulation in self and others, and the use of feeling to motivate, plan, and achieve in one’s life” (Salovey & Mayer, 1990). Boyatzis, Goleman, and Rhee, (2000) found that the competency model consists of 20 emotional intelligence abilities, divided into four groups. These groups are self-awareness, self-management, social awareness, and social skills. Empathy is an essential ability of the social cognitive group, one of the four emotional intelligence abilities (Boyatzis et al., 2000).

Empathy is considered as one of the main dimensions in service quality measurement. It is because giving customer attention is very important (Berry & Parasuraman, 1997). The way company listens and responds to customers affect its service quality. Berry and Parasuraman (1997) found that listening as empathy skills can be a way of providing service to customers.

There are also other parts of empathy to focus on including individuals concerning empathy-related emotions, pro-social behavior, moral sensitivity, and moral judgment. These points are used to develop moral and behavior (Spinrad, Eisenberg, & Bernt, 2007).

Empathy is well-known as a constructs related to interpersonal process (Traux&Carkhuff, 1967; Traux& Mitchell, 1971). To measure empathy, the rating scale created by Traux (1961) and modified by Carkhuff (1969) is the best known

(Avery, D'Augelli, & Danish, 1976). Carkhuff (1969) defined empathy as "the ability to recognize, sense and to understand the feelings that another person has associated with his behavioral and verbal expressions and to accurately communicate this understanding to him."

#### **2.1.5.1 Empathy in E-service**

Whitman and Woszczynski (2004) define e-service as an interactive, content-centered and internet-based customer service, driven by the customer and integrated with related organizational customer support processes and technologies with the goal of strengthening customer and service provider relationship. Thus, e-service has two main characteristics: the service is accessible within electronic networks; and the service is consumed by a user via the internet. According to this, the most important difference between traditional service and e-service in a library is that the e-user has to participate in the service processes more actively. He or she relies entirely on own ability to use technology to obtain the service.

In website, there is no human interaction, so it is quite hard to say that website does not pay attention to users. However, many website developers have found their ways in giving attention to users. They give users experiences in customizing their own website. The more likely a website is to meet the needs of a particular customer, the greater the likelihood that the customer will keep coming back (The Economist, 2001).

### **2.2 Self Service Technology**

The most important topic to discuss in marketing and literacy management services is the perception of service quality, value, and customer satisfaction. (Cronnin et al, 2000; Dobrzykowski et al., 2014.) This emphasis affects e-commerce environment as well as bricks and mortars. Today's business is gradually replacing the traditional way of providing services through various growth technologies (Lee & Yang, 2013), including

transaction and technology-critical information. Nowadays, technology has become one of the most important factors in service area that involve more customers, better service delivery and improved transactions. Specifically, many providers have adopted different approaches through self-service technology (SST) during the service delivery process (Anderson et al., 2013).

Typically, SST is specifically designed to contain the information needed to improve the quality and meet customer needs (Sang-Zhou, 2009), but the quality of the SST (SQ-SST) service has yet to meet its performance criteria. The result is that the lower service quality is SST would lead to the lower customer satisfaction in e-commerce. Many companies invest in SST, most do not achieve the expected SQ-SST and pleasure (Colla & Lapoule, 2012, Hilton et al., 2013).

It is interesting on how company can use its SST to provide the effective services to customers and how can company increase customer's satisfaction in SST. According to Collier and Kimes, (2013), SST has no relationship with infrastructure. SST is the customer's willingness to purchase online and recognize the value of SST. Customers are not willing to ask for services through the SST of a vendor that is perceived as providing a low value even if they take a positive attitude toward the vendor. It is therefore necessary to assess the question of how to explain the effect. The acceptance of this technology plays a decisive role in e-satisfaction because it relates to the perceived value in the context of SST. Relationship between SQ-SST and e-satisfaction can be assumed. Most of the studies measure the satisfaction in office situations rather than online situation (Cronnin et al., 2000).

In addition, although the direct effect of SQ-SST on electronic satisfaction has been studied before (Lin et al., 2006), there is not much studies on indirect effects. Baron and Kenny (1986) found that there is such a strong relationship between predictive and baseline variables. With regards to the importance of perceived value and quality of service in the context of SST, it is reasonable to gain a deeper insight into how the intervention effect occurs by analyzing the possibility that perceived value intervenes between SQ-SST and e-satisfaction can be.

Meuter et al. (2000) found that SSTs can be used in many ways. Company can use SSTs to improve customer experience, lower down the labor cost and keep pace with technological advances. Orel and Kara (2014) categorized SST into a broad category, including ATMs, Internet services (e.g., Internet banking), self-service kiosks and self-checkout lanes. Fitzsimmons (2003) also conceptualized SST as the current trend of service encounters driven by technology in the original "face-to-face" service encounter.

During SST use, some parts can be unacceptable but customer tolerate it. As Berry et al. (2002, p. 88) stated, "customers always have an experience – good, bad or indifferent – whenever they purchase a product or service from a company." Some of them are memorable, whether favorable or unfavorable. Customer's experiences affect the company image in the view of customer. In addition, it would affect customer's lateral behavior (Klaus & Maklan, 2012).

Technology-based self-service (TBSS), in which with no involvement of service personnel, customers use SST to perform services directly, it helps companies increase operational efficiency while delivering added value to customers (Dabholkar, 1994; Meuter et al., 2000) (Hilton et al., 2013; Meuter et al., 2003). However, TBSS is not able to take over the traditional interpersonal service yet. So, from the developments of technology, complex professional services have been transformed to TBSS (Schuster et al., 2013) and characterized low-level skills and service involvement in service technology (Bolton & Saxena-Iyer, 2009).

There is not much study on whether customers continue to use SST with the qualities they trust. Loyalty and continued use of services are important to the firm (Anderson & Srinivasan, 2003) and sometimes consumer benefits. Nonetheless, limited existing studies have focused on factors that influence consumer behavioral loyalty to TBSS (Tojib & Tsarenko, 2012; van Beuningen et al., 2009; Wang et al., 2013).

### **2.2.2 Technology Readiness**

Technology readiness (TR) means the ability of each individual to use technology to complete his or her life goals. The use of technology can be of benefit or threat as different people perceive technology differently. There are four aspects of TR, both positive and negative. The first positive relationship with technology is optimism. Customers believe that technology is convenient, efficient, and flexible. The second point is innovative. It helps drive more people to use technology. Third, the feeling of discomfort happens when the customers perceive technology as uncontrollable. Lastly, customers who are not able to use technology properly and lost their confidence would create anxiety in themselves (Parasuraman, 2000).

TR is a mental state that results in mental stimulants and inhibitors that collectively determine the temperament of a person using new technology (Parasuraman, 2000). According to Meuter et al., (2003), there are more than 55% Americans who are suffering from using technology. So, it can be said that people who are unfamiliar with technology will tend to avoid it.

There are several researches arguing about the relationship between TR and SST. Lin and Hsieh (2006; 2007) found that there is a strong relationship between TR and SST. When customers are familiar with technology, they tend to use more of SST. So, the company should also focus on TR in order to improve its SST.

On the other hand, Liljander, Gillberg, Gummerus, and Riel (2007) argued that TR has very small effect on SST. Similarly, Lin, Shih, and Sher (2007) found that there is an insignificant relationship between the consumer TR and the intention to use certain electronic services. This limited and confusing result suggests that further investigation of the impact of the TR on the intended use of a particular SST may be necessary.

Chen et al. (2009) pointed out that SST service providers should stimulate positive TR drivers to achieve business goals such as increased customer satisfaction and benefits. TR can reduce the difficulty of providing services by mitigating the difficulties of performance evaluation. In addition, Vize et al. (2013) found that TR plays an important role in customer perception of the level of SQ-SST (i.e., Web-based



solutions). Therefore, a high level of TR can be expected to lead to a higher level of quality of service received from SST.

### **2.3 Perceived Price Fairness**

Recent research efforts have segregated consumer perceptions of price inequality and several factors that affect the potential outcome of such perceptions (Bolton et al., 2003; Campbell, 1999; Vaidyanathan & Aggarwal, 2003; Xia et al., 2004). Previous work has been characterized by distributed fairness and procedural impartiality. The principle of fairness of distribution or fairness of outcomes asserts that individuals judge the fairness of relationships based on compensation dividends from contributions to relationships (Homans, 1961). Thus, the unequal rate of interest in investment between all parties involved in an exchange relationship creates a perception of unfairness.

Procedural fairness is related to judging whether processes are based on common norms and behavior (Thibaut & Walker, 1975). It is suggested that consumer's price fairness perceptions are influenced by procedural and disparate considerations. For example, a seller's price suggestion for a car may involve a description of the various options and the price of the delivery charge and the required down payment and payment method. Under such circumstances, the initial price (i.e., price proposal) of the vehicle presented by the seller and the conditions associated with the price and the manner in which these conditions are processed and described to the consumer (e.g., price process) will affect the consumer's fairness. In addition, there is a positive correlation between pricing fairness perception and price procedural fairness perception. The order of influence is determined by the order in which consumers receive price suggestions and pricing information (Van Den Bos et al., 1997).

Another foundation of price fairness awareness, the price qualification principle, implies that one party should not make a profit for another party. If a company uses higher consumer demand for consumer benefit through price increases, consumers will



feel that they are exploited, and therefore they will perceive the price as unfair. The dual benefit principle begins with the buyer's reaction to the explicit exploitation of the seller based on supply and demand changes, but the consumer can form a perception of unfairness based on his or her demand situation without explicit exploitation. For example, when buyers think they should buy a product and they have to pay for it at any price, they may be concerned that the seller is potentially exploitable whether or not the seller actually does.

According to empirical evidence from online service quality literature, customer perceived value leads to electronic satisfaction (Hsu et al., 2013). A customer's perception of service value is closely related to the excellent value of service exchanges with service providers and how customer's e-satisfaction reflects the overall feel of the customer derived from that value. In the context of customer technology interactions, these are the result of SST's recognition of customer value. Previous research has shown that perceived value has a significant effect on user satisfaction in the context of e-commerce (McDougall and Levesque, 2000; Lin, 2007, Chiu et al., 2009). Shamdasani et al. (2008) found that perceived value plays a particularly important role in influencing satisfaction in the context of self-service Internet technology.

### **2.3.1 Promotion**

Sellers can categorize customers by promotions (Monroe, 2003). On the other hand, differences in price of the same product or service can lead to unfairness in customer perception (Feinberg, Krishna, & Zhang 2002; Xia, Monroe, & Cox 2004). Most of the previous research have focused on price increase and the motivation of seller on increasing price (Xia, Monroe, & Cox 2004). Price promotions typically represent a price decline based on the characteristics of a particular promotional tactic, but consumers can develop fair perceptions of promotional tactics and influence pricing fairness perceptions (Kukar-Kinney, Xia, & Monroe 2007).

Previous researchers examined the effectiveness of consumer endeavors because they have rarely studied (Huppertz, Arenson, & Evans, 1978), although they have studied whether or not consumers perceive the seller's nonmonetary effort as input and justify the price. Consumer efforts are regarded as inputs to exchanges and may influence perceptions of equity (Mowen & Grove 1983, Oliver & Swan 1989).

So, when customers receive promotional pricing, they do not experience only monetary payments, but they also experience other types of non-monetary sacrifices.

Few empirical studies have studied the effects of consumer efforts on fair perception. Oliver and Swan (1989) investigated the effects of both buyer and seller inputs and products in the study of purchasing new car. They agreed that most of buyer's information (time and effort invested in information retrieval and purchasing), had a significant effect on the results. Another research from Mowen and Grove (1983) has shown that customer would do a research when they feel that they have paid more than reference (i.e., other customers).

To conclude, price fairness refers to the distribution aspect of fairness or the recognition of the final price paid. If consumers get promotional pricing (that is, favorable outcomes), the results they expect from the search and purchase efforts are fair and fairness is not usually a problem. However, if the promotional price is rejected, it will violate the consumers' low price expectations, and the price paid should be recognized as unfavorable compared to the promotion price. Consumers also have unbalanced input or output ratios because the effort spent cannot be restored. Therefore, the amount of effort consumed appears to be unreasonable. In other words, effort is regarded as a result and affects fairness if the outcome is disadvantageous.

## **2.4 Estimated Waiting Time**

Several research studies focus on the relationship between waiting time and satisfaction (Hui and Tse, 1996; Pruyn and Smidts, 1998). Many other studies emphasize the link

between customer satisfaction and their loyalty (e.g., Anderson, 1994; Dick and Basu, 1994; Fornell et al., 1996; Selnes, 2001; Mittal and Kamakura, 2001; Olsen, 2002).

Service perishability gives rise to many problems for service providers and these intensify when service demand fluctuates. To tackle this major problem, firms adopt strategies to match capacity and demand (Bateson and Hoffman, 1999; Lovelock and Lapert, 1999; Zeithaml and Bitner, 2002). One of the first strategies adopted is to flex capacity to meet demand. During periods of peak demand, the organization expands its capacity by adding new resources such as people, facilities and equipment. Second, companies may try to smooth demand. Companies can motivate consumers by making their offer more attractive during low demand periods. Companies may also choose to use reservation in order to spread the demand evenly. However, even with booking, service providers experience difficulties in minimizing delay in service delivery. When demand and capacity cannot be aligned, waiting line strategies can still be found. Among waiting line strategies, we find making wait more fun or tolerable, differentiating waiting customers and choosing an appropriate waiting line configuration (Zeithaml and Bitner, 2002). Despite the implementation of all these strategies, when customer waiting time is too long, companies may indeed make consumers dissatisfied. Service providers may even miss one or several sale occasions; and even worse lose a loyal customer, despite an effective service recovery strategy. But what characterizes a long waiting time? The waiting time has four aspects: objective, subjective, cognitive and affective:

- (1) The objective waiting time is the elapsed time as measured by a stopwatch by customers before being served (Davis and Vollman, 1990; Katz et al., 1991; Taylor, 1994).
- (2) The subjective waiting time is the customers' estimation of time waited. In previous research studies, the subjective aspect is measured by means of the perceived waiting time (Hui and Tse, 1996; Pruyn and Smidts, 1998). Unsurprisingly, the estimated time depends on objectively measured elapsed time (Hornick, 1984; Pruyn and Smidts, 1998; Antonides et al., 2002).

- (3) The cognitive aspect of the wait is the consumers' evaluation of the wait as being (or not being) acceptable, reasonable, tolerable (Durrande-Moreau, 1999) as well as considered to be short versus long (Pruyn and Smidts, 1998).
- (4) The affective aspect of the wait consists of emotional responses to waiting such as irritation, boredom, frustration, stress, pleasure, happiness, etc ... (Taylor, 1994; Hui and Tse, 1996; Pruyn and Smidts, 1998). According to Pruyn and Smidts (1998), these affective and cognitive aspects form the appraisal of the wait.

According to Maister (1985), the gap between the perception and expectation for waiting experience determines the customer satisfaction with waiting. Davis and Heineke (1994) specify Maister's definition, replacing "perception" by "performance interpretation", noting that perception depends on both the customer's interpretation of the service encounter and the actual service performance. During the last decade, many definitions of overall satisfaction have been proposed, underlining the cognitive and/or affective constituents of the concept (Oliver, 1993). Regarding waiting time, both aspects seem to be appropriate (Durrande-Moreau, 1999). Consequently, we consider waiting time satisfaction as a post-experience, judgmental evaluation including both cognitive and affective aspects of waiting; and measuring the extent to which the perceived waiting period matches the customer's expectations for a specific transaction.

## **2.4 Customer Satisfaction**

In previous studies, various definitions and customer satisfaction measures were used (Szymanski & Henard, 2001). In the study of Oliver, (1997), transaction and overall satisfaction were separated. Transaction satisfaction includes product comparison and interaction with sales staff while satisfaction with the purchase result means the satisfaction when the product has been purchased (Bitner & Hubbert, 1994; Shankar et al., 2003). For online decision support, Bechwati and Xia (2003) found that the way people make an effort to make decision, affected decision making. So, of the customers find that information is enough and there is not much effort needed in making decision,

they would tend to be satisfied with the website. Similarly, Spreng et al. (1993) suggested that customer satisfaction with the availability of product information has a significant impact on overall satisfaction when evaluating various product options. Study has found that fairness is related to satisfaction. Customers defined fairness as appropriateness. So, fairness has become a dominant effect on satisfaction (Szymanski & Henard, 2001).

Customer satisfaction has played an important role in marketing for more than 30 years (Heitmann et al., 2007). Satisfaction starts from the service which exceeds or meets customer expectations. Firms want to make satisfaction as one of their strategies because satisfaction can create long term relationship with customers (Carpenter & Fairhurst, 2005). So, customers are satisfied or unsatisfied would affect company's profit accordingly (Mittal & Kamakura, 2001; Patterson et al., 1997).

Satisfaction can be defined in many ways. Satisfaction with the product, satisfaction with the service or post-purchased service, satisfaction with sales people, and satisfaction with sales process are definitions of satisfaction. According to Carpenter and Fairhurst, (2005), most of the satisfaction surveys are focused on product evaluation not branding, store atmosphere and sales staff performance.

Satisfaction is the result of customer's personal evaluation of product or service performance (Bloomer & Kasper, 1995). From the research of Oliver (1980), customers expect satisfaction before using product or service. It is found that there is no certainty about these expectations after consumption.

Garbarino and Johnson (1999), found that there are three types of customer satisfaction.

- (1) Overall Customer Satisfaction (OCS) which means the overall satisfaction of customers including both product and service.
- (2) Functional Customer Satisfaction (FCS) is the ability of the company to provide service to meet customer expectation. Examples of these features include the responsiveness of the employee handling the complaint, the interaction of the front line staff, and the ease of accessing company employees when necessary.



(3) Technical Customer Satisfaction (TCS) is a service attributed to satisfaction that reflects the consumer's assessment of the technical capabilities of service providers providing services to consumers (Cronin & Taylor, 1992; Nicholls et al., 1998; Gilbert & Veloutsou, 2006). Technology competencies include service performance, reputation and image of the company, and service prices.

Carman (1990) questioned the reliability of the SERVQUEL model and recommended further testing of the instrument to ensure reliability. Andaleeb and Conway (2006) also questioned the reliability of the scale as they stated, "Although the SERVQUAL framework has been pursued with some enthusiasm in various service industries, empirical support for the suggested framework has not always been encouraging". Besides low reliability, the instrument used in SERVQUEL model was designed mainly for longitudinal study as Parasuraman et al. (1988) recommended tracking service quality periodically for optimal results. On top of this, the SERVQUEL model requires measuring the expectation prior to rendering of service and measuring the perception after the service, making it ideal for longitudinal studies but unfit for a cross sectional study like the current one (Parasuraman et al., 1988).

Additionally, Parasuraman et al. (1988) claimed that this instrument is most useful when it is being used with other customer service measurement tools, such as systematically soliciting and analyzing customer complaints and comments. This is another reason for SEVRQUEL not being a match for the current study, as the current study has neither solicited comments nor complaints. Finally, according to Parasuraman et al. (1988), the SERVQUEL is a generic instrument. Since it is a generic instrument and has not been specifically developed for the restaurant industry, this model is not a good fit for the current study.

Customer satisfaction is a key and valued outcome of good marketing practices. The principal purpose of a business is to create satisfied customers (Greenland & Looney, 2007; Weitzman, 2008). Increasing customer satisfaction has been found to lead to higher future profitability, but ignoring customer satisfaction will become public knowledge (Fost, 2008; Lauer, 2008). There are many ways to increase buyers. It can



be done by lower down the cost which would increase the customer willingness to buy and provide referrals (Ferryanto, 2006). To increase the sales, company has to think from the buyer's point of view, thinking about their concerns and priorities. If the company is able to do these, it would lead to the higher levels of loyalty and repurchase intention (Bolton & Drew, 1994; Fornell, 1992).

Fornell, (1992) found that to increase the company's future revenue, increasing customer loyalty is one of the ways. So, if the customer at present is satisfied with the services, later he or she would come back and bring more profit to the firm (Ferryanto, 2006). Increasing customer satisfaction can reduce the cost of the company by reduction of defective goods and product rework (Fornell, 1992; Goldstein, 2009). In order to build a long term relationship with customer, the best way to do is providing product or service that exceed customer's expectation (Hacking, 2008). Some other methods such as promotion or rebate could not bring back customers as much as good product or service. The temporary methods such as promotion would surely attract high volume of customers but these customers are uncertain. They could not be counted as loyal (Fornell, 1992; Terblanche, 2005)

## **2.5 Word-of-Mouth**

Positive word-of-mouth is a behavioral intention much like repurchase, but deals with intention to recommend (Fomell & Wemerfelt, 1987; Fomell & Wemerfelt, 1988; Fomell, 1992; Berry, Parasuraman, & Zeithaml, 1994; Dawkins & Reichheld, 1990). When people are satisfied with the product or service, they would spread the information to family, friends, co-workers and others. This information would influence other customers to purchase (Reichheld & Sasser, 1990, Fomell & Wemerfelt, 1987; Fomell & Wemerfelt, 1988; Fomell, 1992; Berry, Parasuraman, & Zeithaml, 1994; Dawkins & Reichheld, 1990; Zeithaml, 2000; Zeithaml, Berry, & Parasuraman, 1996; Greising, 1994; Rust, Zahorik, & Keiningham, 1995; Anderson, Fomell, & Lehmann, 1994).

In marketing, the customer's decision to transmit positive word-of-mouth information is viewed as a compliment to a marketer's efforts to reach viable portions of a market. Individual customer makes decisions to transmit or withhold word-of-mouth information to other possible customers. When customers are satisfied, they might or might not spread the information. It depends on their behavior (Frenzen & Nakamoto, 1993). The sequence of transmission decisions occurs through an active network, not through a passive diffusion process. WOM is a flow of information from two parties. The information might change according to both parties' relationship (Frenzen & Nakamoto, 1993).

There are two factors influencing WOM information flow. The first factor is 'micro-level'. In this level, the transmitter delivers or withholds the information. The information may be about the relative expertise of the service, quality, or other attributes of a product or service. The information may also be about a sale on goods or services or the availability of a highly desired product (Frenzen & Nakamoto, 1993). The other class involves "macro-level" factors that determine the structure of the channels that direct the flow of information. The social relations and networks between customers are the "macro-level" factors. The combined effects of both individual and structural factors influence word-of-mouth behavior in markets (Frenzen & Nakamoto, 1993).

Beatty et al. (1988) defines customer engagement to developing services as a psychological attachment. Word of mouth (WOM) is an informal communication between two users about products or services (Westbrook, 1987). Information from WOM can help customers in making their decision whether they should purchase the product or service (Lundeen et al., 1995; Zeithaml et al., 1993).

In recent literature on relational marketing, the focus is on the potential responses from efforts to build relationships with consumers (Sheth & Parvatiyar, 1995; Verhoef et al., 2002). Many scholars and practitioners agreed that WOM is the most important factor in marketing (White & Schneider, 2000). WOM happens when customer shares information about products, services, processes, etc. with others.

From the wider point of view, WOM includes all information about the products or services. The information is shared from one person to another person or group (Brown et al., 2005). Moreover, WOM is defined as an informal, human-to-human communication between a non-commercial communicator and a recipient perceived in relation to a brand, product, organization or service (Harrison Walker, 2001).

Reichheld (2006) believed that the relationship with customers has reached the highest point when customers are willing to recommend the company to others. A WOM recommendation represents a personal recommendation that is beneficial to one person and to others in relation to the company and its products and services. WOM is well-known as a reliable source of communication and plays an important role in securing new customers (Reichheld & Sasser, 1990). Despite its long history in the marketing literature (Day, 1971, Katz & Lazarsfeld, 1955), "Interest in WOM communications has been activated in marketing activities." The power of the Internet is a source and source of electronic WOM (Gruen et al., 2006). Dedicated customers promote suppliers through WOM recommendations (Grönroos, 2004; Lacey & Robert M. Morgan, 2007).

Word-of-mouth marketing refers to communicating the product information from one person to another through the said communication (Arndt, 1967). Product-loving customers will be more committed to uniquely communicating the product characteristics to other customers (Westbrook, 1987). Normally, then WOM is spread, it is more effective than advertising. It is because seeders and recipients trust each other because information senders and recipients know and trust each other (Wilkie, 1990). Word-of-mouth marketing has a positive impact on the customer's intent to purchase, but negatively impacts customer satisfaction if not properly managed (Arndt, 1967).

Nowadays, the way of communicating has changed. People can post their comments on products or services via social media such as Facebook or Twitter. This information spread very fast on internet and their friends would see immediately. As your network grows, word of mouth affects customer satisfaction positively or negatively. Media can be used for WOM marketing which are email, online forum, chat room, etc., and with these social media, geographical limitation is eliminated and bi-directional

communication is enabled anytime and anywhere (Hennig-Thurau et al., 2004). Digital form information surely moves faster and further than paper-based information (Hanson, 2000). The advantages of electronic word-of-mouth marketing far outweigh the benefits of traditional word-of-mouth marketing approaches (Tanimoto & Fujii, 2003). Electronic word-of-mouth marketing poses a security threat because users can change their identity or hide it and deliberately spread the word to appeal for personal opinions. Some companies have employed these potential threats by hiring staff and deliberately disseminating positive feedback on the product. When other customers share positive information about themselves, they can accept more products (Briggs & Hollis, 1997). Godes and Mayzlin, (2004) claimed that WOM has a high impact on online customers' behavior. Many online customers change their purchasing decisions because of electronic word of mouth effects (Banerjee, 1992). Typical methods employed to increase the effectiveness of word-of-mouth marketing are user ratings, discussion forums, and product demos (Riegner, 2007). This marketing saves time searching for accurate information from customers and gives them the confidence to make purchasing decisions (Vijayasarathy & Jones, 2001).

### **2.5.1 Word-of-Mouth affects Customer Satisfaction**

Hartline and Jones (1996) argued that quality awareness is unique and valuable in providing the customer with a WOM and conducting research in a service context for the WOM. In fact, WOM provides a solution to the problem of service intangibles. Customers who are attracted to WOM have twice as many WOMs as their new customers. It is believed that WOM has a big effect on new customers. Little attention is paid to dealing with the goodwill of WOM. WOM is the most important and informal means of communication with customers (Filser, 1996). In defining the WOM concept, various researchers supported the definition made by Arndt (1967), which emphasizes the informal aspects of WOM communications. In other words, communicators are completely independent from commercial sources. Likewise, WOM is considered informal communication about the evaluation of goods and services.



There are two dimensions of WOM according to Harrison-Walker (2001) as follows:

- (1) WOM activity which treats the frequency of WOM communications, the number of participants, and the amount of information provided in the same pattern.
- (2) WOM valence contains positive, negative, or neutral suggestions that show the difference from previous researchers but includes the recently proposed five-dimensional WOM strength, positive valence WOM, negative valence WOM, and WOM content.

In most literature, satisfaction is an explanatory variable of the WOM, and most studies on this topic focus on how consumer satisfaction affects the diffusion of WOM. When a consumer receives a service that exceeds expectations, the consumer is satisfied and wants to give a positive feedback or review about product or service to others. However, if the customer is not satisfied, negative WOM would likely to occur (Anderson, 1998; Ranaweera and Prabhu, 2003; Luo and Homburg, 2007).

The higher the customer satisfaction, the more WOM information you can get. Customer satisfaction has a significant impact on the proliferation of WOM. Swan and Oliver (1989) believed that customer satisfaction would generate more WOMs than non-satisfied customers. Study of Ranaweera and Prabhu (2003) found a positive relationship between customer satisfaction and word of mouth. The link between them is strong. Unsatisfied customer would mostly create negative WOM while satisfied customer would mostly create positive WOM. Specifically, the higher or lower the satisfaction rate is, the more likely consumers are to spread the WOM and the lower the consumer's satisfaction or dissatisfaction is, the lower the willingness to spread the WOM.

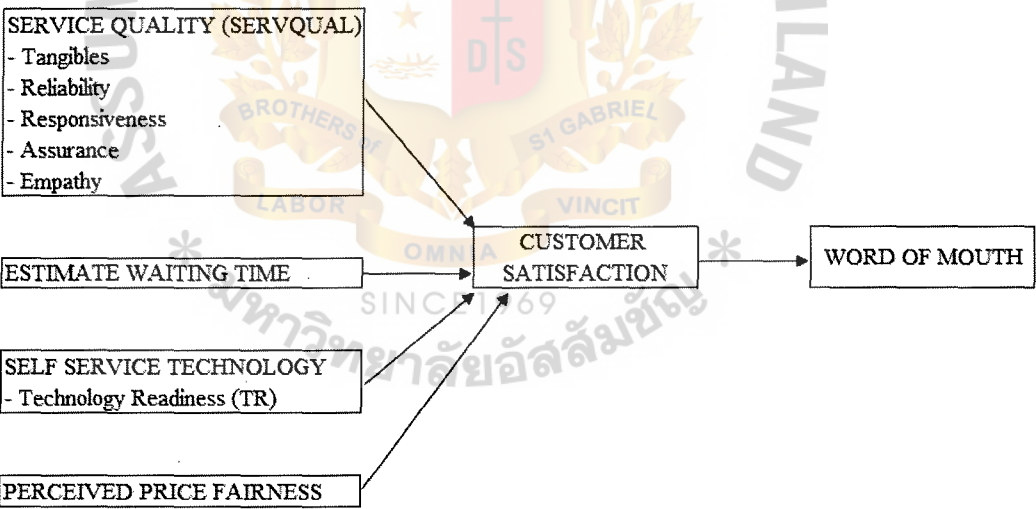
To summarize, previous researches have shown relationship between SERVQUAL, self-service technology, perceived price fairness and customer satisfaction, also the relationship between customer satisfaction and word of mouth. This research has examined these relationships in online taxi providers' industry since this industry is very new in Thailand and there is not much research in this topic yet.

CHAPTER III

RESEARCH METHODOLOGY

This chapter examines the relationship between service quality, self-service technology, estimate waiting time, perceived price fairness, estimate waiting time, customer satisfaction, word of mouth, demographical data, and travelling data as shown in Research Framework under point 3.1. Also, this chapter presents how the data have been collected and how the questionnaire was created. Lastly, it presents the result of pre-test reliability test and factor analysis.

3.1 Research Framework



Roger Hallowell (1996); Bolton et al. (2003); Campbell (1999); Vaidyanathan & Aggarwal (2003); Xia et al. (2004); Cronnin et al. (2000) Debrzykowski et al. (2014); Parasuraman et al. (2005), and Tax et al. (1993)



### **3.2 Research Hypothesis**

Hypothesis of this study has examined the relationship between SERVQUAL and self-service technology, perceived price fairness, estimated waiting time, customer satisfaction, word of mouth, demographical data, and travelling data

#### **3.2.1 Relationship between Service Quality (Tangibles, Reliability, Responsiveness, Assurance and Empathy), self-service technology, perceived price fairness and estimate waiting time, and Customer Satisfaction**

The SERVQUAL concept which was developed by Parasuraman et al., (1988) has been widely used to measure customer experience in using products and services. It is because when customers evaluate a service, a comparison between what they are expecting and what was delivered will happen. As a service measurement, SERVQUAL is used to evaluate the service which would involve the comparison between what customer was expecting and what have been delivered by the company. In order to examine the service to be excellent, good, or bad, it would depend on customer satisfaction toward the products or services. (Parasuraman et al., 1985). Thus, the relationship can be purposed as Hypothesis 1 as follow:

**Hypothesis 1:** Service Quality (Tangibles, Reliability, Responsiveness, Assurance and Empathy), self-service technology, perceived price fairness and estimated waiting time affect Customer Satisfaction of online taxi providers in Thailand.

#### **3.2.2 Relationship between Customer Satisfaction and Word of Mouth**

The higher the customer satisfaction, the more WOM information you can get. Customer satisfaction has a significant impact on the proliferation of WOM. Swan and Oliver (1989) believed that customer satisfaction would generate more WOMs than non-satisfied customers. Study of Ranaweera and Prabhu (2003) found a positive relationship between customer satisfaction and word of mouth. The link between them is strong. Unsatisfied customer would mostly create negative WOM while satisfied

customer would mostly create positive WOM. Thus, the relationship can be purposed as Hypothesis 2 as follow:

**Hypothesis 2:** Customer Satisfaction affects Word of Mouth of online taxi providers in Thailand.

### **3.2.3 Relationship between Customer Satisfaction between people who are different in Demographic Background.**

People who are different in Demographic Background may perceive Satisfaction differently. For example, women may perceive satisfaction higher than men or people who are older may perceive satisfaction higher than younger people. Income may also affect the satisfaction. People with higher income may perceive satisfaction higher than people who have lower income. Same as education and occupation, people with higher education may perceive satisfaction higher than people with lower education and lastly, people in different occupation may perceive satisfaction differently. Thus, the relationship can be purposed as Hypothesis 3 as follow:

**Hypothesis 3:** There is difference in Customer Satisfaction between people who are different in Demographic Background.

Past research on gender differences in fairness perceptions has produced conflicting results. Some studies suggest that the relative importance that men and women place on fairness is stronger among women than men. A few studies have found no significant gender differences in fairness perceptions (Robin et al, 2006). Thus, the relationship can be purposed as Hypothesis 3.1 as follow:

**Hypothesis 3.1:** People who are different in Gender perceive Customer Satisfaction differently.

Age has been recognized in the literature as an important variable for predicting consumer behavior in some stages of the buying process (Simcock et al., 2006) and for

market segmentation (Homburg and Giering, 2001). However, interest in consumer age research is increasing, especially in aging societies because the adult population represents an increasingly larger segment and has greater purchasing power (Simcock et al., 2006). Thus, the relationship can be purposed as Hypothesis 3.2 as follow:

**Hypothesis 3.2:** There is difference in Customer Satisfaction among people who are different in Age.

People with different in Income may perceive satisfaction differently. People with more income, more money may perceive satisfaction differently from people with lesser money. So, this hypothesis is created to find the relationship between money and satisfaction. Thus, the relationship can be purposed as Hypothesis 3.3 as follow:

**Hypothesis 3.3:** There is difference in Customer Satisfaction among people who are different in Monthly Income.

Education level might affect satisfaction. People with higher education might perceive education higher than people with lower education. Education might make people have different expectation in goods and services. Thus, the relationship can be purposed as Hypothesis 3.4 as follow:

**Hypothesis 3.4:** There is difference in Customer Satisfaction among people who are different in Education Level.

Occupation might affect satisfaction as people from different occupation might perceive satisfaction differently. Thus, the relationship can be purposed as Hypothesis 3.5 as follow:

**Hypothesis 3.5:** There is difference in Customer Satisfaction among people who are different in Occupation

### **3.2.4 Relationship between estimated riding time and Customer Satisfaction**

The more time passenger spends with driver may make satisfaction higher or lower. When the riding time is long, passenger would have more time on the vehicle and more time with the driver. With the good service of driver and the comfort of the vehicle, satisfaction level might be higher. Thus, the relationship can be purposed as Hypothesis 4 as follow:

**Hypothesis 4:** People who have different estimated riding time perceive Customer Satisfaction differently.

### **3.2.5 Relationship between Assurance and Age**

People in older age may perceive assurance higher than people who are younger. When people are more mature, they might expect more on assurance from service provider and more importantly, the safety in their travel. Thus, the relationship can be purposed as Hypothesis 5 as follow:

**Hypothesis 5:** There is difference in Assurance perception among people who are different in Age.

### **3.2.6 Relationship between Perceived Price Fairness and Payment Method**

Research in marketing and psychology show that satisfaction is positively related with perceived price fairness (Bowman & Narayandas, 2001; Huffman & Cain, 2001; Kim & Mauborgne, 1996; Smith et. al., 1999). Oliver and Swan (1989a) found that customers' fairness perceptions depended on a supplier's commitment and the quality of the goods and services relative to the price paid. Thus, the relationship can be purposed as Hypothesis 6 as follow:

**Hypothesis 6:** There is difference in Perceived Price Fairness between people who pay by Cash and by Credit Card.

### 3.2.7 Relationship between Perceived Price Fairness and Payment Method

Although the SSTs are designed to improve quality and contain necessary information to fulfill customer needs, the service quality of SSTs (SQ-SSTs) has not been developed to the standard of performance yet. As a result, the low level of SQ-SSTs in e-commerce setting, would affect customer satisfaction. During SST use, some parts can be unacceptable but customer tolerate it. As Berry et al. (2002, p. 88) stated, “customers always have an experience – good, bad or indifferent – whenever they purchase a product or service from a company.” Some of them are memorable, whether favorable or unfavorable. Customer’s experiences affect the company image in the view of customer. In addition, it would affect customer’s lateral behavior (Klaus & Maklan, 2012). Thus, the relationship can be purposed as Hypothesis 7 as follow:

**Hypothesis 7:** There is difference in Self Service Technology perception among people who are different in Occupation.

It can be said that travelling during day time is safer than travelling at night. So, this hypothesis is created to find the relationship between travelling time and Assurance. People who are travelling at night might perceive assurance higher than people who are travelling during the day. Thus, the relationship can be purposed as Hypothesis 8 as follow:

**Hypothesis 8:** There is difference in Assurance perception among people who are travelling in different time.

To conclude, this research has examined the relationship between SERVQUAL and Self-Service Technology, Technology Readiness, Perceived Price Fairness and, Customer Satisfaction. Moreover, the research has aimed to examine the relationship between Customer Satisfaction and Word of Mouth. Demographic background has also been used to examine the impact on Customer Satisfaction.



### 3.3 Population of the Study

The study has focused on the respondents who frequently use taxi. Estimated population in Bangkok, Thailand is 9.27 million. The target group was the taxi users who live in Bangkok and use the service of online taxi providers in their everyday life.

Since the target of this research is to find the feedback from users who have used both GRAB and UBER so, the population must be people who have used both services. In the questionnaire, the answer from respondent who have used only one of the services will be rejected.

### 3.4 Sample Size Determination

The population of Bangkok as of 2017 was around 9.27 million people; however, only 400 people were chosen as samples for the study.

This research used a simplified formula to calculate sample size (Yamane, 1967). Given the formula;

$$n = \frac{N}{1 + N(e)^2}$$

Where n is Corrected Sample Size, N is Population Size, and e is Margin of Error (MoE).

Replacing formula with the actual number, the equation would be;

$$n = \frac{9,270,000}{1 + 9,270,000 (0.05)^2}$$

So, the sample size for this research is 399.98 or 400 samples.

3.5 Sampling Technique

This research used non-Probability Sampling Technique, Convenience Sampling for answering the questionnaire. The unequal chances of being selected occurred during non-Probability Sampling Technique. The downside of the non-probability sampling method is that an unknown proportion of the entire population is not sampled.

The most common of all sampling techniques is convenience sampling. With convenience sampling, the samples were selected because they were accessible to the researcher. Subjects were chosen simply because they were easy to be recruited. This technique is considered easiest, cheapest and least time consuming.

3.6 Questionnaire Development

This study used quantitative approach (web-based questionnaire survey) to examine the hypothesis.

The questionnaire using 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5), was developed to examine the hypotheses in this research. Questionnaires were distributed by the researcher through online social network.

The questionnaire consisted of the following six concepts, 8 parts:

Table 3.1: Concept of Questionnaire

Concept	Number of questions	Authors
SERVQUAL	21	Parasuraman et al. (2005).
- Tangibility	4	Parasuraman et al. (2005).
- Reliability	4	Parasuraman et al. (2005).

- Responsiveness	4	Parasuraman et al. (2005).
- Assurance	5	Parasuraman et al. (2005).
- Empathy	4	Parasuraman et al. (2005).
Estimated Waiting Time	5	Zeithaml and Bitner (2002)
Self Service Technology	5	Cronnin et al. (2000) and Debrzykowski et al. (2014)
Technology Readiness	5	Cronnin et al. (2000) and Debrzykowski et al. (2014)
Perceived Price Fairness	5	Bolton et al., (2003); Campbell, (1999); Vaidyanathan& Aggarwal, (2003), and Xia et al., (2004)
Customer Satisfaction	5	Roger Hallowell, (1996)
Word of Mouth	5	Fomell and Wemerfelt, (1987); Fomell and Wemerfelt, (1988); Fomell, (1992); Berry, Parasuraman, and Zeithaml, (1994); Dawkins and Reichheld, (1990).
Demographical Data	6	Kurt and Atrek (2012)
Travelling Data	3	Travelling Data of each respondent

This study was conducted using a structured questionnaire from the model of Parasuraman et al. (2005). SERVQUAL model has been applied in many studies such as Garrard Francesca and Narayan Harini (2013) and Essam Ibrahim, Lee Wei Wang and Abeer Hassan (2012).

For the part of Self Service Technology and Technology Readiness, this research was conducted by the researcher using the model of Cronnin et al. (2000) and Debrzykowski et al. (2014). The concept explained the relationship between customer satisfaction and self-service technology.

Perceived Price Fairness questions were adapted from the studies of Bolton et al., (2003); Campbell, (1999); Vaidyanathan& Aggarwal, (2003), and Xia et al., (2004).

**Table 3.2: SERVQUAL, Self Service Technology, and Perceived Price Fairness measurement items for GRAB and UBER users**

Variable	Questions	
Tangibility	TAN1	GRAB’s and UBER’s vehicles have appealing physical appearance
Tangibility	TAN2	GRAB’s and UBER’s service teams are professional
Tangibility	TAN3	GRAB and UBER are interesting and easy to understand
Tangibility	TAN4	GRAB’s and UBER’s drivers are professional
Reliability	REL1	GRAB and UBER provide fair and consistent assessment to users
Reliability	REL2	GRAB and UBER promote error-free records and documentations
Reliability	REL3	GRAB’s and UBER’s service teams show sincere intention in resolving users problems and concerns
Reliability	REL4	GRAB’s and UBER’s service teams fulfill their commitments/promises to users
Responsiveness	RES1	GRAB’s and UBER’s drivers respond to problems sincerely, promptly and effectively
Responsiveness	RES2	GRAB and UBER provide accurate information and services, e.g. pick up time, routing and fair rate
Responsiveness	RES3	GRAB’s and UBER’s service teams provide prompt response/feedback to users

Variable	Questions	
Responsiveness	RES4	GRAB's and UBER's service teams are willing to provide application assistance to users when needed
Assurance	ASSU1	Users are given the correct information they require to find their GRAB and UBER drivers
Assurance	ASSU2	I am confident that the money I spend is worth the quality of service offered
Assurance	ASSU3	I believe GRAB's and UBER's drivers are more reliable.
Assurance	ASSU4	GRAB's and UBER's service teams are knowledgeable of the application.
Assurance	ASSU5	I feel safer using GRAB and UBER.
Empathy	EMP1	There are enough GRAB and UBER drivers all the time.
Empathy	EMP2	GRAB's and UBER's drivers understand our specific needs.
Empathy	EMP3	The operation hours of GRAB's and UBER's service teams are convenient to all their customers.
Empathy	EMP4	GRAB's and UBER's service teams give us personal attention.
Estimated Waiting Time	WAI1	There is no waiting time for taxi.
Estimated Waiting Time	WAI2	The waiting time for taxi is less than 2 minutes.
Estimated Waiting Time	WAI3	The waiting time for taxi is between 2-5 minutes.
Estimated Waiting Time	WAI4	The waiting time for taxi is between 5-10 minutes.



Variable	Questions	
Estimated Waiting Time	WAI5	The waiting time for taxi is more than 10 minutes
Self Service Technology	SST1	A complete overview of the order is presented before final booking decision.
Self Service Technology	SST2	Other charges are clearly detailed.
Self Service Technology	SST3	Different payment options are stated clearly.
Self Service Technology	SST4	Access to anticipate pick up times is available at all times.
Self Service Technology	SST5	Terms and conditions of sales are accessible.
Technology Readiness	TR1	GRAB and UBER are readily available in all operation systems.
Technology Readiness	TR2	GRAB and UBER involve less effort than other applications.
Technology Readiness	TR3	The company actively promotes the self-service applications to all users.
Technology Readiness	TR4	Users have access to all functions in self-service technology without extra registration processes.
Technology Readiness	TR5	Social networks are used to keep users informed and users help other users.
Perceived Price Fairness	PPF1	I believe I paid the best price.
Perceived Price Fairness	PPF2	I would continue using GRAB and UBER even the price is higher than other applications.

Variable	Questions	
Perceived Price Fairness	PPF3	GRAB's and UBER's promotions help me save money.
Perceived Price Fairness	PPF4	I am satisfied with GRAB's and UBER's promotion.
Perceived Price Fairness	PPF5	I use GRAB and UBER because of their promotion.

Customer satisfaction and word of mouth questions in the questionnaire were adopted from the study of Anderson, E.W. (1998); Ranaweera, C. and Prabhu, J. (2003), and Ren, X.Y. (2012), The Research of Improving the Customer Satisfaction Through Word of Mouth Marketing, Capital University of Economics and Business Press, Beijing.

**Table 3.3: Measurement items for customer satisfaction and word of mouth for GRAB and UBER users**

Variable	Questions	
Customer Satisfaction	CS1	I am satisfied with GRAB's and UBER's drivers.
Customer Satisfaction	CS2	I am satisfied with GRAB's and UBER's service teams.
Customer Satisfaction	CS3	I am satisfied with GRAB's and UBER's processes.
Customer Satisfaction	CS4	I am satisfied with GRAB's and UBER's prices.
Customer Satisfaction	CS5	I am satisfied with GRAB's and UBER's promotions.
Word of Mouth	WOM1	I would continue using GRAB and UBER.

Variable	Questions	
Customer Satisfaction	CS1	I am satisfied with GRAB's and UBER's drivers.
Word of Mouth	WOM2	When I am satisfied with the service; I recommend it to others.
Word of Mouth	WOM3	I recommend the service to frequent taxi users.
Word of Mouth	WOM4	I would tell only positive comments to others.
Word of Mouth	WOM5	I would continue using GRAB and UBER even when I encounter bad services.

The demographical data aim to capture the gender, age, marital status, educational level, occupation, and monthly income of respondents. The questions were adopted from the journal of Kurt and Atrek (2012).

**Table 3.4: Measurement items for demographical data for both GRAB and UBER users**

Variable	Questions
General Information	Gender (Male/Female)
	Age (Under 18, 18-23, 24-30, 31-40, and above 41)
	Marital status (Single, Married, Divorce/separated and Others)
	Education level (Under High School, High School, Diploma, Bachelor Degree, Master Degree and Others)
	Occupation (Student, Government Employee, State Enterprises, Company Employee, Business Owner and Others)

Variable	Questions
	Monthly income (Below 9,000 THB, 9,001-15,000 THB, 15,001-30,000 THB, 30,001-60,000 and above 60,000 THB)

Travelling data of respondents is used in order to examine the factors influencing satisfaction which might lead to word of mouth in the future.

**Table 3.5: Measurement items for travelling data for both GRAB and UBER users**

Variable	Questions
Travelling Information	Travelling time (5.00-9.00, 9.01-15.00, 15.01-21.00 and 21.01-4.59)
	Estimated time for one ride (Below 20 minutes, 21-40 minutes, 41 minutes to 1 hour and above 1 hour)
	Payment method (Cash or credit)

### 3.7 Reliability of the Measurement Items

Confidence was tested when the number of target respondents reached 30 people, which was done by using Cronbach's alpha Coefficient. Cronbach's alpha value ranges from 0 to 1 and values greater than 0.6 indicate acceptable reliability. To achieve reliability studies, the results of Cronbach 'Alpha should be greater than 0.6 (Cronbach, 1951).

Table 8 below is the result of reliability test which validated this research and has achieved the reliability test standard.

**Table 3.6: Reliability of the Pre-test Data**

Construct	Cronbach's Alpha	Number of Items
Service Quality (SERVQUAL)	0.874	21
- Tangibility	0.881	4
- Reliability	0.722	4
- Responsiveness	0.911	4
- Assurance	0.745	5
- Empathy	0.889	4
Self Service Technology	0.816	5
- Technology Readiness	0.894	5
Price	0.842	5
Customer Satisfaction	0.916	5
Word of Mouth	0.874	5

**3.8 Factor Analysis Result**

Factor analysis is an exploratory analysis. Like cluster analysis which groups similar cases, factor analysis also groups similar variables into dimensions. This process is also known as latent variable identification. Because factor analysis is an exploratory analysis, it does not distinguish between independent and dependent variables. Factor analysis reduces the information in the model by reducing the size of the observations. This procedure has several purposes. Also, factor analysis can be used to simplify data.

Thus, in this study, factor analysis was adopted to measure the validity of 3 constructs in the questionnaire which include SERVQUAL (5 components total 21 items), Self Service Technology, Technology Readiness and Perceived Price Fairness (3 components total 15 items) and Customer Satisfaction and Word of mouth (2 components total 10 items).



**Table 3.7: Factor Analysis Result of Service Quality (SERVQUAL)**

Factor analysis result of SERVQUAL includes tangibility (4 items), reliability (4 items), responsiveness (4 items), assurance (5 items), and empathy (4 items). The result of factor analysis goes in one direction.

Measurement Items	Components				
	1	2	3	4	5
TAN1		.551			
TAN2		.654			
TAN3		.543			
TAN4		.443			
REL1	.674				
REL2	.601				
REL3	.682				
REL4	.712				
RES1			.535		
RES2			.567		
RES3			.756		
RES4			.432		
ASSU1					.526
ASSU2					.578
ASSU3					.541
ASSU4					.622
ASSU5					.643
EMP1				.568	
EMP2				.587	
EMP3				.534	
EMP4				.573	

KMO = 0.92; Bartlett's Test of Sphericity  $p < 0.001$

Cumulative Variance Explained =67.72%

**Table 3.8: Factor Analysis Result of Self Service Technology, Technology Readiness and Perceived Price Fairness**

Factor analysis results of Self Service Technology, Technology Readiness and Perceived Price Fairness include Self Service Technology (5 items), Technology Readiness (5 items), and Perceived Price Fairness (5 items)

Measurement Items	Components		
	1	2	3
SST1	.556		
SST2	.657		
SST3	.546		
SST4	.533		
SST5	.610		
TR1		.662	
TR2		.672	
TR3		.612	
TR4		.599	
TR5		.580	
P1			.434
P2			.467
P3			.511
P4			.521
P5			.446

KMO = 0.89; Bartlett’s Test of Sphericity  $p < 0.001$ ;  
Cumulative Variance Explained =69.98%

**Table 3.9: Factor Analysis Result of Customer Satisfaction and Words of Mouth**

Factor analysis results of Customer Satisfaction and Word of Mouth include Customer Satisfaction (5 items), and Words of Mouth (5 items)

Measurement Items	Components	
	1	2
CS1	.645	
CS2	.612	
CS3	.661	
CS4	.676	
CS5	.654	
WOM1		.457
WOM2		.542
WOM3		.612
WOM4		.662
WOM5		.632

KMO = 0.96; Bartlett's Test of Sphericity  $p < 0.001$ ;

Cumulative Variance Explained = 72.77%

### 3.9 Chapter Summary

This chapter has provided an overview of the research, to include, research framework, setting population and sample. Yamane's theory is used to determine the sample size. Reliability and Factor Analysis have been tested. The results have achieved the standard. Service Quality (Tangible, Reliability, Responsiveness, Assurance and Empathy), Self Service Technology, Perceived Price Fairness and estimate waiting time are related to Customer Satisfaction and Customer Satisfaction is related to Word of Mouth. The result based on a questionnaire which respondents are GRAB ad UBER

users who live in Bangkok and provinces nearby. Hypothesis of this research is related to information factors that would lead to Satisfaction and Word of Mouth including Demographic Background.



## CHAPTER IV

### PRESENTATION AND CRITICAL DISCUSSION OF RESULTS

This research has interpreted data by using SAS. The research aims to find the relationship between Service Quality (Tangible, Reliability, Responsiveness, Assurance and Empathy) and Customer Satisfaction. Also, to examine the relationship between Customer Satisfaction and Word of Mouth. In this chapter, the result of each hypothesis test is discussed with the result table from SAS

#### 4.1 Result of hypothesis test

**Hypothesis 1:** Service Quality (Tangibles, Reliability, Responsiveness, Assurance and Empathy), self-service technology, perceived price fairness and estimated waiting time affect Customer Satisfaction of online taxi providers in Thailand.



**Hypothesis 3:** There is a difference in Customer Satisfaction among people who are different in Demographic Background.

**Hypothesis 3.1:** People who are different in Gender perceive Customer Satisfaction differently.

**Table 4.3: Result of T Test between Gender and Customer Satisfaction**

t Test						
The Ttest Procedure						
Variable: Customer Satisfaction						
Gender	N	Mean	Std Dev	Std Err	Minimum	Maximum
Female	200	3.8110	0.4754	0.0336	1.0000	5.0000
Male	207	3.6850	0.4460	0.0310	1.6000	5.0000
Diff (1-2)		0.1260	0.4607	0.0457		

Gender	Method	Mean	95% CL Mean	Std Dev	95% CL Std Dev
Female		3.8110	3.7447	3.8773	0.4754
Male		3.6850	3.6239	3.7461	0.4460
Diff (1-2)	Pooled	0.1260	0.0362	0.2158	0.4607
Diff (1-2)	Satterthwaite	0.1260	0.0361	0.2159	

Method	Variances	DF	t Value	Pr >  t
Pooled	Equal	405	2.76	0.0061
Satterthwaite	Unequal	401.14	2.75	0.0061

Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Foled F	199	206	1.14	0.3644

From the Equality of Variance table, P-value is more than 0.005, variances are equal. F-value is 1.14. Therefore, the p-value of equal variance is examined and p-value is 0.0061 which is less than 0.05. According to the result, hypothesis is rejected, it means that customers who are different in gender perceives customer satisfaction differently. Moreover, mean score shows that customers who are female perceive customer satisfaction higher than customer who are male. Means score of female and male are 3.8110 and 3.6850 respectively















Alpha	0.05
Error Degrees of Freedom	402
Error Mean Square	0.285121
Harmonix Mean of Cell Sizes	36.80409

Number of Means	2	3	4	5
Critical Range	0.2447	0.2576	0.2662	0.2726

Means with the same letter are not significantly different				
Duncan Grouping		Mean	N	Age
	A	3.9818	11	Less than 18 years
	A			
B	A	3.7613	62	18 - 23 years
B				
B	C	3.6027	75	41 years onward
	C			
	C	3.4794	136	31 - 40 years
	C			
	C	3.4667	123	24 - 30 years

From the table, P-value is less than 0.005 and F-value is 5.74. The result shows that at least one group is different. Therefore, the Duncan multiple range test is performed to investigate which group is different. People who are less than 18 years old perceive assurance different from people who are older than 23 years old.

According to the means scores, people who are less than 18 years old perceive assurance higher than people who are older than 23 years old.

**Hypothesis 6:** There is difference in Perceived Price Fairness between people who pay by Cash and Credit Card.

**Table 4.10: Result of T Test between Gender and Price**

t Test						
The Ttest Procedure						
Variable: Price						
Do you pay by cash?	N	Mean	Std Dev	Std Err	Minimum	Maximum
Female	51	3.7490	0.6510	0.0912	2.0000	5.0000
Male	356	3.6674	0.4951	0.0262	1.0000	5.0000
Diff (1-2)		0.0816	0.5169	0.0774		

Do you pay by cash?	Method	Mean	95% CL Mean		Std Dev	95% CL Std Dev	
Female		3.7490	3.5659	3.9321	0.6510	0.5447	0.8092
Male		3.6674	3.6158	3.7190	0.4951	0.4612	0.5344
Diff (1-2)	Pooled	0.0816	-0.0705	0.2337	0.5169	0.4836	0.5551
Diff (1-2)	Satterthwaite	0.0816	-0.1082	0.2714			

Method	Variances	DF	t Value	Pr >  t
Pooled	Equal	405	1.05	0.2923
Satterthwaite	Unequal	58.574	0.86	0.3931

Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Foled F	50	355	1.73	0.0053

From the Equality of Variances table, P-value is less than 0.005, variances are unequal. F-value is 1.73. Accordingly, p-value of equal variances is examined. It shows that p-value is greater than 0.05, therefore null hypothesis is not rejected. The result shows that customers who use different payment methods perceive Customer Satisfaction not differently.





Number of Means	2	3	4	5	6
Critical Range	0.2493	0.2625	0.2913	0.2778	0.2828

Means with the same letter are not significantly different				
	Duncan Grouping		Mean	N
	A		3.8634	41
	A			
B	A		3.7613	31
B	A			
B	A	C	3.7182	22
B	A	C		
B	A	C	3.6643	224
B		C		
B		C	3.4968	31
		C		
		C	3.4552	58
		C		

From the table, P-value is less than 0.005 and F-value is 3.45. Therefore, the Duncan multiple range test is performed to investigate which group is different. Student perceives Self Service Technology different from people who are working as state enterprises employees and other occupation. Moreover, student perceives Self Service Technology higher than people from enterprises employees and other occupation.

**Hypothesis 8:** There is difference in Assurance perception among people who travel in different time.

**Table 4.12: Result of ANOVA Test between people who travel in different time and Assurance**

One-Way Analysis of Variance Results The ANOVA Procedure					
Class Level Information					
Class	Levels	Values			
What is your most often travelling time	4	15.01 - 21.00 21.01 - 4.59 5.00 - 09.00 09.01 - 15.00			
Number of Observations Read		407			
Number of Observations Used		407			
One-Way Analysis of Variance Results The ANOVA Procedure Dependent Variable: Assurance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	4.013617	1.4671206	5.06	0.0019
Error	403	116.76679560	0.2897439		
Corrected Total	406	121.1681572			
R-Square		Coeff Var	Root MSE	Assurance Mean	
0.036324		15.14234	0.538279	3.746929	
Source	DF	Anova SS	Mean Square	F Value	Pr > F
What is your most often travelling time	3	4.40136138	1.46712056	5.06	0.0019

**One-Way Analysis of Variance  
Results  
The ANOVA Procedure  
Duncan's Multiple Range Test for Assurance**

Alpha	0.05
Error Degrees of Freedom	403
Error Mean Square	0.289744
Harmonic Mean of Cell Sizes	95.8775

Number of Means	2	3	4
Critical Range	0.1528	0.1609	0.1663

Means with the same letter are not significantly different			
Duncan Grouping	Mean	N	Occupation
A	3.61127	142	15.01-21.00
A			
A	3.60822	73	21.01- 4.59
A			
A	3.60769	104	5.00 - 9.00
B	3.35000	88	9.01- 15.00

From the table, P-value is less than 0.005 and F-value is 5.06. Null hypothesis is rejected. The result shows that at least one group is different. Therefore, the Duncan multiple range test is performed to investigate which group is different. People who travel between 15.01 – 21.00 perceive assurance different from people who travel between 9.01 – 15.00. Moreover, people who travel between 15.01 – 21.00 perceive assurance higher than people who travel between 9.01 – 15.00.

## **CHAPTER V**

### **SUMMARY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

The first purpose of this study is to determine the relationship between Customer Satisfaction and independent variables of Service Quality (Tangible, Reliability, Responsiveness, Assurance and Empathy), Self Service Technology, Perceived Price Fairness and estimate waiting time. The second purpose is to determine the relationship between Customer Satisfaction and Word of Mouth. The last purpose is to determine the impact of Demographic variables on Customer Satisfaction.

#### **5.1 Summary of the Findings**

From the results in Chapter 4, some of the hypotheses significantly matched with the results; however, some did not match with the results. The results showed that Customer Satisfaction and independent variables of Service Quality (Tangible, Reliability, Responsiveness, Assurance and Empathy), Self Service Technology, Perceived Price Fairness and Estimated Waiting Time are related. Moreover, Customer Satisfaction and Word of Mouth are also related.

However, the impact of Demographic variables on Customers Satisfaction did not significantly match with the results. The results showed that the difference in Gender, Age, Monthly Income, Education Level and Occupation does not affect the perception of Customer Satisfaction.

The research also tried to determine whether the waiting time of the customers for the driver would affect the perception of satisfaction. The result showed that the customer's waiting time does not affect the perception of satisfaction. Moreover, people who have different riding time do not perceive satisfaction differently.

People who are different in Age perceive Assurance differently. People who are less than 18 years old perceive Assurance the highest and people who are between 24 – 30 years old perceive Assurance the lowest.

Customers who pay by Cash and other methods whether by Credit Card or Grab Pay perceive Price Fairness differently. People who pay by other methods tend to perceive Price Fairness more than people who pay by Cash.

People who are different in Occupation perceive Self Service Technology differently. Students perceive Self Service Technology the different from people who are working as state enterprises employees and other occupation. Moreover, student perceives Self Service Technology higher than people from state enterprises employees and other occupation.

People who are different in Education Level perceive Reliability differently. High School graduates perceive Reliability the highest other graduates perceive Reliability the lowest.

Customers who are travelling in different time perceive Assurance differently. The result showed that customers who are travelling from 15.01 – 09.00 perceive Assurance the highest and customers who are travelling from 9.01 – 15.00 perceive Assurance the lowest.

## 5.2 Conclusions

In conclusion, the Framework of this research has matched with the research result. All variables which are Service Quality (Tangible, Reliability, Responsiveness, Assurance and Empathy), Self Service Technology, Perceived Price Fairness and Estimated Waiting Time are related to Customer Satisfaction, and Customer Satisfaction is related to Word of Mouth. However, Demographic background does not impact on Satisfaction.



Service Quality (Tangible, Reliability, Responsiveness, Assurance and Empathy), Self Service Technology, Perceived Price Fairness and Estimate Waiting Time are important factors which lead to Customer Satisfaction and Customer satisfaction would lead to Word of Mouth. Word of Mouth is one of a most effective marketing strategies nowadays. It is priceless and it spread fast especially in today's online world. So, company should focus on these variables in order to improve its satisfaction level. The result of this research can be used as reference for studies related to Customer Satisfaction and Word of Mouth.

People at the younger age perceived Satisfaction higher than people who are older. It shows that people in the new generation concern more about their safety. Also, people who are travelling at night also concern about their safety which would lead to satisfaction. People who pay by cash are less satisfied than people who pay by credit card.

The important concern in nowadays' technology is Self-Service-Technology. Older people tend to perceive Satisfaction less than younger people. It shows that elderly might need easier function to use the application.

However, demographic background of the travelers which are Age, Monthly Income, Education, and Occupation are not related with Customer satisfaction. Also, waiting time for driver and estimate riding time are not related as well.

### **5.3 Theoretical Implications**

The result of this study found that Service Quality (Tangible, Reliability, Responsiveness, Assurance and Empathy), Self Service Technology, Perceived Price Fairness and Estimate Waiting Time are related to Customer Satisfaction and Customer Satisfaction would later lead to Word of Mouth. However, Demographic Background does not impact on Customer Satisfaction.

The result is the same as Parasurman, Valarie Zeithaml, and Leonard L. Berry in 1988 that Tangible, Reliability, Responsiveness, Assurance and Empathy are the measurements of Service Quality and Service Quality is the path to Satisfaction. When the service is higher than the expectation, satisfaction level is higher. On the other hand, if the expectation is higher than the service, satisfaction level is lower.

According to Dobrzykowski et al., 2014, technology is replacing the normal way of marketing. People tend to use more of internet platform instead of normal face to face service. So, the quality of internet platform and the readiness of users are important to satisfaction level. If the platform is easy to understand and the users are ready to accept new technology, satisfaction level is higher. On the other hand, if the platform is hard to use or not safe, users would not agree to use online service.

From the study of Bolton et al., 2003; Campbell, 1999; Vaidyanathan and Aggarwal, 2003 and Xia et al., 2004, people satisfaction level is affected by their price perception. The satisfaction level is higher when customers believe that the price they are paying is fair. However, if customers believe that the price they are paying is unfair, the satisfaction level is lower. In addition, this research found that, customers who pay by credit card or other methods perceive satisfaction higher than customers who pay by cash.

From the study of Hacking (2008), when the customers are satisfied with the products or services, they spread by word of mouth to others. However, when they are not satisfied with the products or services, they also spread the bad feedback.

#### **5.4 Managerial Implications**

From the results of this research, it shows that Service Quality (Tangible, Reliability, Responsiveness, Assurance and Empathy), Self Service Technology, Perceived Price Fairness and Estimate Waiting Time are related to Customer Satisfaction. So, the companies should focus on these points to increase their service in the eyes of

customers. The younger customers tend to perceive Assurance and Self Service Technology higher than the other age groups. From the result, the company should focus more on the older generation which perceive satisfaction lesser. The companies also should also focus more on customers who pay by cash since this group of customers perceive satisfaction lower than customers who pay by credit card or other methods such as Grab Pay.

Moreover, the companies use safety as their strength because younger customers and customers who use the service at night perceive Satisfaction the highest. The platform of application is also important since older customers perceive satisfaction lower in Self Service Technology part. The reliability of drivers and service teams are also the good part of satisfaction.

However, there is no significant relationship between Demographic Background such as Gender and Age and Satisfaction. So, the companies do not need to focus much on these points.

### **5.5 Limitations and Recommendations for Future Research**

Since GRAB and UBER are only available in Bangkok and metropolis, there is no research from other provinces. Also, the target groups of people who are using applications are people who have smartphones. So, the target groups of questionnaire respondents are people who have smartphones and ever used GRAB and UBER before.

For future research, if the applications extend to people in other provinces, the research can go further. Moreover, there are other in-app services such as parcel or food delivery, the research may focus on those points.

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APPENDICES



## APPENDIX A

### Questionnaire

#### Questionnaire แบบสอบถาม

#### Customers' satisfaction and Word of Mouth toward online taxi provider: a case study of GRAB and UBER

แบบสำรวจปัจจัยที่ส่งผลกระทบต่อความพึงพอใจของลูกค้า กรณีศึกษาของแกร็บและอูเบอร์

- Have you ever used GRAB's services before? (คุณเคยใช้บริการแกร็บ)
  - ☐ Yes, please continue (เคยใช้บริการ), รบกวนทำแบบสอบถามต่อ
  - ☐ No, Thank you for your answer (ไม่เคยใช้บริการ), ขอขอบคุณสำหรับการตอบคำถามค่ะ
- Have you ever used UBER's services before? (คุณเคยใช้บริการอูเบอร์)
  - ☐ Yes, please continue (เคยใช้บริการ), รบกวนทำแบบสอบถามต่อ
  - ☐ No, Thank you for your answer (ไม่เคยใช้บริการ), ขอขอบคุณสำหรับการตอบคำถามค่ะ

#### Part I: Demographic factors (Check only one and fill in the blank) ข้อมูลทั่วไป (เลือกคำตอบที่ตรงกับท่าน)

1. Gender (เพศ)
  - ☐ 1. Male (ผู้ชาย)
  - ☐ 2. Female (ผู้หญิง)
2. Age อายุ
  - ☐ 1. Less than 18 years (น้อยกว่า 18 ปี)
  - ☐ 2. 18 - 23 years (18–23 ปี)
  - ☐ 3. 24–30 years (24–30 ปี)
  - ☐ 4. 31 - 40 years (31–40 ปี)
  - ☐ 5. 41 years onward (มากกว่า 41 ปี)
3. Marital status (สถานภาพ)
  - ☐ 1. Single (โสด)
  - ☐ 2. Married (แต่งงาน)
  - ☐ 3. Divorce/ separated (หย่าร้าง/แยกกันอยู่)
  - ☐ 4. Other ... (อื่นๆ ....)
4. Educational Level (การศึกษา)
  - ☐ 1. Under high school (ต่ำกว่ามัธยมศึกษา)

- ☐ 2. High school (มัธยมศึกษา)
  - ☐ 3. Diploma (ปวช. หรือปวส.)
  - ☐ 4. Bachelor degree (ปริญญาตรี)
  - ☐ 5. Master degree (ปริญญาโท)
  - ☐ 6. Other(อื่นๆ)
5. Occupation (อาชีพ)
- ☐ 1. Student (นักเรียน)
  - ☐ 2. Government employee(ข้าราชการ)
  - ☐ 3. State enterprises(รัฐวิสาหกิจ)
  - ☐ 4. Company employee(พนักงานบริษัท)
  - ☐ 5. Business owner (เจ้าของกิจการ)
  - ☐ 6. Other (อื่นๆ ...).
6. Monthly income (รายได้ต่อเดือน)
- ☐ 1. Less than 9,000 baht (น้อยกว่า 9,000 บาท)
  - ☐ 2. 9,001 - 15,000 baht (ระหว่าง 9,001 - 15,000 บาท)
  - ☐ 3. 15,001 - 30,000 baht (ระหว่าง 15,001 - 30,000 บาท)
  - ☐ 4. 30,001 - 60,000 baht (ระหว่าง 30,001 - 60,000 บาท)
  - ☐ 5. More than 60,001 baht (มากกว่า 60,001 บาท)
7. What is your most often travelling time? (คุณใช้บริการในช่วงเวลาใดมากที่สุด)
- ☐ 5.00 – 9.00
  - ☐ 9.01 – 15.00
  - ☐ 15.01 – 21.00
  - ☐ 21.01 – 4.59
8. Estimated time for one ride(ระยะเวลาในการใช้บริการต่อครั้ง)
- ☐ Less than 20 minutes (น้อยกว่า 20 นาที)
  - ☐ From 21 minutes to 40 minutes (21 นาที -40 นาที)
  - ☐ From 41 minutes to 1 hour (41 นาที - 1 ชั่วโมง)
  - ☐ More than 1 hour (1 ชั่วโมง เป็นต้นไป)
9. Do you pay by cash? (คุณใช้เงินสดในการชำระค่าบริการ)
- ☐ Yes (ใช่)
  - ☐ No(ไม่ใช่)

**Part II: Dimensions of GRAB service quality (Check only one) คุณภาพการให้บริการของ GRAB (เลือกคำตอบที่ตรงกับท่านที่สุด)**

- 1 Strongly disagree (ไม่เห็นด้วยอย่างยิ่ง)
- 2 Disagree (ไม่เห็นด้วย)
- 3 Neither agree nor disagree (เฉยๆ)
- 4 Agree (เห็นด้วย)

5 Strongly Agree (เห็นด้วยอย่างยิ่ง)

SQ	Tangibility		1	2	3	4	5
1	GRAB's vehicle has appealing physical appearance	ยานพาหนะของแกรบมีสภาพน่าใช้งาน	1	2	3	4	5
2	GRAB's service team is professional	พนักงานลูกค้าสัมพันธ์ของแกรบมีความเป็นมืออาชีพ	1	2	3	4	5
3	GRAB is interesting and easy to understand	แอปพลิเคชันของแกรบมีความน่าสนใจและใช้งานง่าย	1	2	3	4	5
4	GRAB's driver is professional	พนักงานขับรถของแกรบมีความเป็นมืออาชีพ	1	2	3	4	5
	Reliability		1	2	3	4	5
5	GRAB provides fair and consistent assessment to users	แอปพลิเคชันของแกรบมีความยุติธรรมในการใช้งาน	1	2	3	4	5
6	GRAB promotes error-free records and documentations	แอปพลิเคชันของแกรบไม่เกิดข้อผิดพลาดในการใช้งาน	1	2	3	4	5
7	GRAB's service team shows sincere intention in resolving users problems and concerns	พนักงานลูกค้าสัมพันธ์ของแกรบแสดงความจริงใจในการช่วยเหลือลูกค้า	1	2	3	4	5
8	GRAB's service team fulfill their commitments/promises to users	พนักงานลูกค้าสัมพันธ์ของแกรบสามารถทำตามคำสัญญาที่ให้ไว้กับลูกค้าได้	1	2	3	4	5
	Responsiveness		1	2	3	4	5
9	GRAB's driver responds to problems sincerely, promptly and effectively	พนักงานขับรถของแกรบแก้ปัญหาของลูกค้าด้วยความจริงใจรวดเร็วและมีประสิทธิภาพ	1	2	3	4	5

10	GRAB provides accurate information and services e.g., pick up time, routing and fair rate	แอปพลิเคชันของแกรบ แสดงข้อมูลได้อย่าง ถูกต้อง	1	2	3	4	5
11	GRAB's service team provides prompt response/feedback to users	พนักงานลูกค้าสัมพันธ์ ของแกรบตอบสนองต่อ ความต้องการของลูกค้า อย่างรวดเร็ว	1	2	3	4	5
12	GRAB's service team is willing to provide application assistance to users when needed	พนักงานลูกค้าสัมพันธ์ ของแกรบแสดงความ ตั้งใจที่จะช่วยเหลือ ลูกค้า	1	2	3	4	5
<b>Assurance</b>			1	2	3	4	5
13	Users are given the correct information they require to find their GRAB drivers	คุณได้รับข้อมูลที่ถูกต้อง จากแอปพลิเคชัน เกี่ยวกับพนักงานขับรถ	1	2	3	4	5
14	I am confident that the money I spent worth the quality of service offered	บริการของแกรบคุ้มค่า กับเงินที่เสียไป	1	2	3	4	5
15	GRAB's service team offers various support services to first time users	พนักงานลูกค้าสัมพันธ์ ของแกรบเสนอความ ช่วยเหลือแก่ผู้ใช้บริการ ครั้งแรก	1	2	3	4	5
16	GRAB's service team is knowledgeable on the application	พนักงานลูกค้าสัมพันธ์ ของแกรบมีความรู้ เกี่ยวกับแอปพลิเคชัน เป็นอย่างดี					
17	GRAB's driver is knowledgeable on routing	พนักงานขับรถของแกร บรู้เส้นทางเป็นอย่างดี					
<b>Empathy</b>			1	2	3	4	5
18	There is enough GRAB drivers at all hours	แกรบมีรถให้บริการ ตลอดเวลา	1	2	3	4	5



19	GRAB's driver understands your specific needs	พนักงานขับรถของแกร็บเข้าใจความต้องการของลูกค้า	1	2	3	4	5
20	The operation hours of Grab's service team is convenient to all its customers	เวลาเปิดทำการศูนย์บริการลูกค้าสัมพันธ์ของแกร็บเหมาะสมกับใช้งานของลูกค้า	1	2	3	4	5
21	GRAB's service team gives you personal attention	พนักงานลูกค้าสัมพันธ์ของแกร็บแสดงความใส่ใจต่อลูกค้า	1	2	3	4	5
22	There is no waiting time to wait for taxi	ไม่มีระยะเวลาจอดรถแท็กซี่	1	2	3	4	5
23	The waiting time for taxi is less than 2 minutes	ระยะเวลาจอดรถแท็กซี่น้อยกว่า 2 นาที	1	2	3	4	5
24	The waiting time for taxi is between 2-5 minutes	ระยะเวลาจอดรถแท็กซี่อยู่ระหว่าง 2-5 นาที	1	2	3	4	5
25	The waiting time for taxi is between 5-10 minutes	ระยะเวลาจอดรถแท็กซี่อยู่ระหว่าง 5-10 นาที	1	2	3	4	5
26	The waiting time for taxi is more than 10 minutes	ระยะเวลาจอดรถแท็กซี่มากกว่า 10 นาที	1	2	3	4	5
<b>SST</b>	<b>Self Service Technology</b>		1	2	3	4	5
1	A complete overview of the order is presented before final booking decision	แอปพลิเคชันของแกร็บแสดงข้อมูลที่ชัดเจนก่อนให้ลูกค้าตัดสินใจใช้บริการ	1	2	3	4	5
2	Other charges are clearly detailed	ค่าบริการเพิ่มเติมต่างๆ ได้แสดงไว้อย่างชัดเจน	1	2	3	4	5
3	Different payment options are stated clearly	สามารถจ่ายค่าบริการได้หลายรูปแบบและแสดงไว้อย่างชัดเจน	1	2	3	4	5
4	Access to anticipated pick up times is available at all times	คุณสามารถตรวจสอบระยะเวลามาถึงของคนขับรถได้ตลอดเวลา	1	2	3	4	5

5	Terms and conditions of sales are accessible	เงื่อนไขการใช้บริการถูก แสดงไว้อย่างชัดเจน	1	2	3	4	5
<b>TR</b>	<b>Technology Readiness</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	GRAB is readily available in all operation systems	คุณสามารถใช้ แอปพลิเคชันของแกรบ ได้ในทุก ระบบปฏิบัติการเช่น IOS และ ANDROID	1	2	3	4	5
2	GRAB involves less effort than other applications	แอปพลิเคชันของแกรบ ใช้งานง่ายกว่า แอปพลิเคชันอื่น	1	2	3	4	5
3	The company actively promote the self-service applications to all users	คุณสามารถใช้ แอปพลิเคชันได้ด้วย ตัวเองและง่ายที่จะใช้	1	2	3	4	5
4	Users have access to all functions in self-service technology without extra registration processes	คุณสามารถใช้งานได้ โดยการเข้าสู่ระบบเพียง ครั้งเดียว	1	2	3	4	5
5	Social networks are used to keep users informed and users help other users	คุณรู้จักแอปพลิเคชันนี้ จากการโฆษณาทาง สังคมออนไลน์	1	2	3	4	5
<b>Price</b>	<b>Price</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	I believe I paid the best price	คุณเชื่อว่าราคาค่าบริการ เหมาะสมแก่การใช้งาน	1	2	3	4	5
2	I would continue using GRAB even the price is higher than other applications	คุณยังคงใช้บริการแกรบ ต่อไป แม้ว่าราคาสูง กว่าแอปพลิเคชันอื่น	1	2	3	4	5
3	GRAB's promotion helps me save money	โปรโมชั่นของแกรบ ช่วยให้คุณประหยัดมาก ขึ้น	1	2	3	4	5
4	I am satisfied with GRAB's promotion	คุณพอใจในโปรโมชั่น ของแกรบ	1	2	3	4	5

5	I use GRAB because of its promotion	คุณใช้บริการแกรบ เพราะโปรโมชั่น	1	2	3	4	5
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**Part III Customer satisfaction and Words of Mouth is using GRAB (Check only one)** ความพึงพอใจของลูกค้าและการบอกต่อของลูกค้าที่ใช้แกรบ (เลือกคำตอบใส่ช่องนั้นๆ)

- 1
Very disagree (ไม่เห็นด้วยอย่างยิ่ง)
- 2
Disagree (ไม่เห็นด้วย)
- 3
Neither agree nor disagree (เฉยๆ)
- 4
Agree (เห็นด้วย)
- 5
Strongly Agree (เห็นด้วยอย่างยิ่ง)

CS	Customer Satisfaction		1	2	3	4	5
1	I am satisfied with GRAB's driver	คุณพอใจกับการให้บริการของคนขับรถของแกรบ	1	2	3	4	5
2	I am satisfied with GRAB's service team	คุณพอใจกับการให้บริการของพนักงานลูกค้าสัมพันธ์ของแกรบ	1	2	3	4	5
3	I am satisfied with Grab's processes	คุณพอใจกับการทำงานของแอปพลิเคชันแกรบ	1	2	3	4	5
4	I am satisfied with GRAB's price	คุณพอใจกับราคาของแกรบ	1	2	3	4	5
5	I am satisfied with GRAB's promotion	คุณพอใจกับโปรโมชั่นของแกรบ	1	2	3	4	5
WOM	Words of Mouth		1	2	3	4	5
1	I would continue using GRAB	คุณยังจะใช้แกรบต่อไป	1	2	3	4	5
2	When I am satisfied with the service, I recommend it to others	เมื่อคุณพอใจกับการบริการ ท่านจะบอกต่อ กับผู้อื่น	1	2	3	4	5
3	I recommend the service to frequent taxi users	คุณแนะนำการบริการแก่ผู้ที่ใช้บริการแท็กซี่เป็นประจำ	1	2	3	4	5

4	I would tell only positive comments to others	คุณบอกต่อเฉพาะด้านดีของการบริการเท่านั้น	1	2	3	4	5
5	I would continue using GRAB even I encountered bad services	คุณจะใช้บริการต่อถึงแม้จะเจอการบริการที่แย่ในบางครั้ง	1	2	3	4	5

**Part II: Dimensions of UBER service quality (Check only one)** คุณภาพการให้บริการของ UBER (เลือกคำตอบที่ตรงกับท่านที่สุด)

- 1 Strongly disagree (ไม่เห็นด้วยอย่างยิ่ง)
- 2 Disagree (ไม่เห็นด้วย)
- 3 Neither agree nor disagree (เฉยๆ)
- 4 Agree (เห็นด้วย)
- 5 Strongly Agree (เห็นด้วยอย่างยิ่ง)

SQ	Tangibility		1	2	3	4	5
1	UBER’s vehicle has appealing physical appearance	ยานพาหนะของอุเบอร์มีสภาพน่าใช้งาน	1	2	3	4	5
2	UBER’s service team is professional	พนักงานลูกค้าสัมพันธ์ของอุเบอร์มีความเป็นมืออาชีพ	1	2	3	4	5
3	UBER is interesting and easy to understand	แอปพลิเคชันของอุเบอร์มีความน่าสนใจและใช้งานง่าย	1	2	3	4	5
4	UBER’s driver is professional	พนักงานขับรถของอุเบอร์มีความเป็นมืออาชีพ	1	2	3	4	5
	Reliability		1	2	3	4	5
5	UBER provides fair and consistent assessment to users	แอปพลิเคชันของอุเบอร์มีความเสถียรในการใช้งาน	1	2	3	4	5
6	UBER promotes error-free records and documentations	แอปพลิเคชันของอุเบอร์ไม่เกิดข้อผิดพลาดในการใช้งาน	1	2	3	4	5



7	UBER's service team shows sincere intention in resolving users problems and concerns	พนักงานลูกค้าสัมพันธ์ของอุเบอร์แสดงความจริงใจในการช่วยเหลือลูกค้า	1	2	3	4	5
8	UBER's service team fulfill their commitments/promises to users	พนักงานลูกค้าสัมพันธ์ของอุเบอร์สามารถทำตามคำสัญญาที่ให้ไว้กับลูกค้าได้	1	2	3	4	5
	<b>Responsiveness</b>		1	2	3	4	5
9	UBER's driver responds to problems sincerely, promptly and effectively	พนักงานขับรถของอุเบอร์แก้ปัญหาของลูกค้าด้วยความจริงใจ รวดเร็วและมีประสิทธิภาพ	1	2	3	4	5
10	UBER provides accurate information and services e.g., pick up time, routing and fair rate	แอปพลิเคชันของอุเบอร์แสดงข้อมูลได้อย่างถูกต้อง	1	2	3	4	5
11	UBER's service team provides prompt response/feedback to users	พนักงานลูกค้าสัมพันธ์ของอุเบอร์ตอบสนองต่อความต้องการของลูกค้าอย่างรวดเร็ว	1	2	3	4	5
12	UBER's service team is willing to provide application assistance to users when needed	พนักงานลูกค้าสัมพันธ์ของอุเบอร์แสดงความตั้งใจที่จะช่วยเหลือลูกค้า	1	2	3	4	5
	<b>Assurance</b>		1	2	3	4	5
13	Users are given the correct information they require to find their UBER drivers	คุณได้รับข้อมูลที่ถูกต้องจากแอปพลิเคชันเกี่ยวกับพนักงานขับรถ	1	2	3	4	5
14	I am confident that the money I spent worth the quality of service offered	บริการของอุเบอร์คุ้มค่ากับเงินที่เสียไป	1	2	3	4	5



15	UBER's service team offers various support services to first time users	พนักงานลูกค้าสัมพันธ์ของอุเบอร์เสนอความช่วยเหลือแก่ผู้ใช้บริการครั้งแรก	1	2	3	4	5
16	UBER's service team is knowledgeable on the application	พนักงานลูกค้าสัมพันธ์ของอุเบอร์มีความรู้เกี่ยวกับแอปพลิเคชันเป็นอย่างดี	1	2	3	4	5
17	UBER's driver is knowledgeable on routing	พนักงานขับรถของอุเบอร์รู้เส้นทางเป็นอย่างดี	1	2	3	4	5
	<b>Empathy</b>		1	2	3	4	5
18	There is enough UBER drivers at all hours	อุเบอร์มีรถให้บริการตลอดเวลา	1	2	3	4	5
19	UBER's driver understand your specific needs	พนักงานขับรถของอุเบอร์เข้าใจความต้องการของลูกค้า	1	2	3	4	5
20	The operation hours of UBER's service team is convenient to all its customers	เวลาเปิดทำการศูนย์บริการลูกค้าสัมพันธ์ของอุเบอร์เหมาะสมกับใช้งานของลูกค้า	1	2	3	4	5
21	UBER's service team gives you personal attention	พนักงานลูกค้าสัมพันธ์ของอุเบอร์แสดงความใส่ใจต่อลูกค้า	1	2	3	4	5
22	There is no waiting time to wait for taxi	ไม่มีระยะเวลาจอดรถแท็กซี่	1	2	3	4	5
23	The waiting time for taxi is less than 2 minutes	ระยะเวลาจอดรถแท็กซี่น้อยกว่า 2 นาที	1	2	3	4	5
24	The waiting time for taxi is between 2-5 minutes	ระยะเวลาจอดรถแท็กซี่อยู่ระหว่าง 2-5 นาที	1	2	3	4	5
25	The waiting time for taxi is between 5-10 minutes	ระยะเวลาจอดรถแท็กซี่อยู่ระหว่าง 5-10 นาที	1	2	3	4	5
26	The waiting time for taxi is more than 10 minutes	ระยะเวลาจอดรถแท็กซี่มากกว่า 10 นาที	1	2	3	4	5

SST	Self Service Technology		1	2	3	4	5
1	A complete overview of the order is presented before final booking decision	แอปพลิเคชันของอูเบอร์ แสดงข้อมูลที่ชัดเจน ก่อนให้ลูกค้าตัดสินใจ ใช้บริการ	1	2	3	4	5
2	Other charges are clearly detailed	ค่าบริการเพิ่มเติมต่างๆ ได้แสดงไว้อย่างชัดเจน	1	2	3	4	5
3	Different payment options are stated clearly	สามารถจ่ายค่าบริการได้ หลายรูปแบบและแสดง ไว้อย่างชัดเจน	1	2	3	4	5
4	Access to anticipated pick up times is available at all times	คุณสามารถตรวจสอบ ระยะเวลามาถึงของ คนขับรถได้ตลอดเวลา	1	2	3	4	5
5	Terms and conditions of sales are accessible	เงื่อนไขการใช้บริการถูก แสดงไว้อย่างชัดเจน	1	2	3	4	5
TR	Technology Readiness		1	2	3	4	5
1	UBER is readily available in all operation systems	คุณสามารถใช้ แอปพลิเคชันของอูเบอร์ ได้ในทุก ระบบปฏิบัติการ เช่น IOS และ ANDROID	1	2	3	4	5
2	UBER involves less effort than other applications	แอปพลิเคชันของอูเบอร์ ใช้งานง่ายกว่า แอปพลิเคชันอื่น	1	2	3	4	5
3	The company actively promote the self-service applications to all users	คุณสามารถใช้ แอปพลิเคชันได้ด้วย ตัวเองและง่ายที่จะใช้	1	2	3	4	5
4	Users have access to all functions in self-service technology without extra registration processes	คุณสามารถใช้งานได้ โดยการเข้าสู่ระบบเพียง ครั้งเดียว	1	2	3	4	5

5	Social networks are used to keep users informed and users help other users	คุณรู้จักแอปพลิเคชันนี้จากการโฆษณาทางสังคมออนไลน์	1	2	3	4	5
Price	Price		1	2	3	4	5
1	I believe I paid the best price	คุณเชื่อว่าราคาค่าบริการเหมาะสมแก่การใช้งาน	1	2	3	4	5
2	I would continue using UBER even the price is higher than other applications	คุณจะยังคงใช้บริการอูเบอร์ต่อไป แม้ว่าราคาสูงกว่าแอปพลิเคชันอื่น	1	2	3	4	5
3	UBER's promotion helps me save money	โปรโมชั่นของอูเบอร์ช่วยให้คุณประหยัดมากขึ้น	1	2	3	4	5
4	I am satisfied with UBER's promotion	คุณพอใจในโปรโมชั่นของอูเบอร์	1	2	3	4	5
5	I use UBER because of its promotion	คุณใช้บริการอูเบอร์เพราะโปรโมชั่น	1	2	3	4	5

**Part III Customer satisfaction and Words of Mouth is using UBER (Check only one)** ความพึงพอใจของลูกค้าและการบอกต่อของลูกค้าที่ใช้แกรบ (เลือกคำตอบใส่ช่องนั้นๆ)

- 1
Very disagree (ไม่เห็นด้วยอย่างยิ่ง)
- 2
Disagree (ไม่เห็นด้วย)
- 3
Neither agree nor disagree (เฉยๆ)
- 4
Agree (เห็นด้วย)
- 5
Strongly Agree (เห็นด้วยอย่างยิ่ง)

CS	Customer Satisfaction		1	2	3	4	5
1	I am satisfied with UBER's driver	คุณพอใจกับการให้บริการของคนขับรถของอูเบอร์					
2	I am satisfied with UBER's service team	คุณพอใจกับการบริการของพนักงานลูกค้าสัมพันธ์ของอูเบอร์					
3	I am satisfied with UBER's processes	คุณพอใจกับการทำงานของแอปพลิเคชันอูเบอร์					

4	I am satisfied with UBER's price	คุณพอใจกับราคาของอูเบอร์					
5	I am satisfied with UBER's promotion	คุณพอใจกับโปรโมชั่นของอูเบอร์					
<b>WOM</b>	<b>Words of Mouth</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	I Would continue using UBER	คุณ将继续使用Uberต่อไป	1	2	3	4	5
2	When I am satisfied with the service, I recommend it to others	เมื่อคุณพอใจกับการบริการ ท่านจะบอกต่อ กับผู้อื่น	1	2	3	4	5
3	I recommend the service to frequent taxi users	คุณแนะนำการบริการแก่ ผู้ที่ใช้บริการแท็กซี่เป็นประจำ	1	2	3	4	5
4	I would tell only positive comments to others	คุณบอกต่อเฉพาะด้านดีของการบริการเท่านั้น	1	2	3	4	5
5	I would continue using UBER even if I encountered bad services	คุณ将继续使用Uber 即使我遇到糟糕的服务	1	2	3	4	5



