THE RELATIONSHIP BETWEEN SERVICE QUALITY AND CUSTOMER SATISFACTION FOR TAXI AND GRAB CAR SERVICES IN MALAYSIA

CHOY JOHNN YEE

UNIVERSITI PENDIDIKAN SULTAN IDRIS

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CHOY JOHNN YEE

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SENIOR LECTURER
DEPARTMENT OF MANAGEMENT AND LEADERSHIP
FACULTY OF MANAGEMENT AND ECONOMICS
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APPRECIATION

Balancing between working life and study life for Doctor of Philosophy was always the most challenging part. I would not come to this stage without the support from people around me. First and foremost, I would like to sincerely thanks to my supervisor, Dr. Mad Ithnin bin Salleh for his professional knowledge that he has provided. My supervisor always gives me positive encouragements and supports throughout the process. I would also like to thanks to my former co-supervisors, Profesor Madya Dr. Abdul Raheem bin Mohamad Yusof for his guidance although it was just for a short while. I appreciated all of my supervisors" efforts, commitments, guidance, and encouragements. The gaining that I earned from them were priceless to me. Sincere appreciation also credited to my lovely family, my parent, two sisters, a brother, and most importantly my wife, Ms. Annie Ng Cheng San. Thousand thanks for your loves, physical and mentally supports, and always be my side whenever I met obstacles. Finally, thanks to all my close friends and colleagues from Universiti Tunku Abdul Rahman. Their morally supports, encouragements, assistances, and happiness motivated me all the time. I could not come to this far without you all. I"ll never forget all of you. All of you are important to me in my life and I love you all.

ABSTRACT

This research intended to compare the impact of service quality, particularly reliability, assurance, tangibles, empathy, responsiveness, waiting time, and valence, towards customer satisfaction between taxi and Grab Car services in Malaysia. The research also aimed at comparing significant difference in service quality and customer satisfaction between both. Development of the research framework is based on adaptation of the Parasuraman‟s SERVQUAL model and Grönroos‟s Two-Dimensional model. Quantitative research via self-administrated questionnaire survey was adopted in this research. A total of 384 surveys were collected from local tourists who had used local taxi and Grab Car in Selangor, Kuala Lumpur, Johor, Penang, and Perak. The target respondents were screened using quota sampling technique where location is used as the control category in the first stage and the second stage is based on judgment. Measurement and structural model are incorporated in the data analyses and the research hypotheses were tested through the Partial Least Square – Structural Equation Modeling (PLS-SEM). Except for waiting time in taxi where the p-value is 0.873, all the service quality dimensions has significant impact on customer satisfaction in taxi and Grab Car with p-value less than 0.05. The R^2 for taxi is 0.633 while Grab Car is 0.640. Besides, the most important service quality factor for taxi is reliability while for Grab Car is responsiveness. Moreover, Grab Car is found to have significant difference in service quality and customer satisfaction which is greater than taxi. In conclusion, this research showed a significant difference exists between service quality and customer satisfaction in taxi and Grab Car. This research provide implications to taxi and Grab Car services in which customer evaluate service quality differently between both services which influence their satisfaction. Also, this study enhances knowledge and literature in the service quality area by providing more comprehensive model and its determinants.

HUBUNGAN ANTARA KUALITI PERKHIDMATAN DENGAN KEPUASAN PELANGGAN BAGI PERKHIDMATAN TEKSI DAN KERETA GRAB DI MALAYSIA

ABSTRAK

Penyelidikan ini bertujuan untuk membandingkan kesan kualiti perkhidmatan, terutamanya kebolehpercayaan, jaminan, asset ketara, empati, tindak balas, masa menunggu, dan valens, terhadap kepuasan pelanggan antara perkhidmatan teksi dan kereta Grab di Malaysia. Penyelidikan ini juga bertujuan untuk membandingkan perbezaan ketara dalam kualiti perkhidmatan dan kepuasan pelanggan antara kedua-duanya. Pembangunan rangka kerja penyelidikan adalah berdasarkan penyesuaian model SERVQUAL daripada Parasuraman dan model Dua Dimensi Grönroos. Penyelidikan kuantitatif melalui soal selidik yang ditadbir sendiri oleh penyelidik telah digunakan dalam penyelidikan ini. Sebanyak 384 tinjauan telah dikumpul daripada pelancong tempatan yang pernah menggunakan perkhidmatan teksi dan kereta Grab di Selangor, Kuala Lumpur, Johor, Pulau Pinang, dan Perak. Responden dipilih berdasarkan penggunaan teknik persampelan kuota di mana lokasi digunakan sebagai kategori kawalan pada peringkat pertama dan peringkat kedua adalah berdasarkan pemilihan penyelidik. Model pengukuran dan struktur disepadukan dalam analisis data dan hipotesis penyelidikan telah diuji dengan menggunakan Pemodelan Persamaan Struktur Kuasa Dua Terkecil Separa (PLS-SEM). Kecuali masa menunggu dalam teksi di mana nilai p adalah 0.873, semua dimensi kualiti perkhidmatan mempunyai kesan yang signifikan terhadap kepuasan pelanggan dalam teksi dan kereta Grab dengan nilai p kurang daripada 0.05. R^2 untuk teksi ialah 0.633 manakala kereta Grab ialah 0.640. Selain itu, faktor kualiti perkhidmatan yang paling penting untuk teksi adalah kebolehpercayaan manakala bagi kereta Grab adalah tindak balas. Perkhidmatan kereta Grab didapati mempunyai perbezaan yang ketara dalam kualiti perkhidmatan dan kepuasan pelanggan yang lebih baik daripada perkhidmatan teksi. Kesimpulannya, kajian ini menunjukkan bahawa terdapat perbezaan yang signifikan di antara kualiti perkhidmatan dan kepuasan pelanggan dalam teksi dan kereta Grab. Kajian ini memberikan implikasi kepada perkhidmatan teksi dan kereta Grab di mana pelanggan menilai kualiti perkhidmatan secara berbeza antara kedua-dua perkhidmatan yang mempengaruhi kepuasan mereka. Ia juga meningkatkan pengetahuan dan sorotan kajian dalam bidang kualiti perkhidmatan dengan menyediakan model yang lebih menyeluruh berserta dengan penentunya.

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LIST OF ABBREVIATIONS

ASEAN	The Association of Southeast Asian Nations
ASSU	Assurance
AVE	Average Variance Extracted
CB-SEM	Co-Variance Based Structural Equation Modelling
CMB	Common Method Bias
CR	Composite Reliability
CS	Customer Satisfaction
EFA	Exploratory Factor Analysis
EMP	Empathy
f^2	Effect Size
GDP	Gross Domestic Product
HTMT	Heterotrait-Monotrait
OECD	Organization for Economic Cooperation and Development
PLS-SEM	Partial Least Squares Structural Equation Modelling
Q^2	Predictive Relevance
R^2	Coefficient of Determination
RATER	Reliability, Assurance, Tangibles, Empathy, and Responsiveness
RELIA	Reliability
RESP	Responsiveness
SEA	Southeast Asia
SEM	Structural Equation Modelling
SME	Small and medium-sized enterprises

SPSS	Statistical Packages for the Social Science
SQ	Service Quality
TANG	Tangibles
TPB	Theory of Planned Behavior
VAL	Valence
VIF	Variance Inflation Factor
WT	Waiting Time

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter provides an overview of the research. First, the research background is regarding Malaysia public transportation particularly taxi and Grab Car services and its roles in tourism sector, followed by the problem statement on the issue of Malaysia taxi and Grab Car services. Then, research objectives have been set. Two research questions formed to add more understanding on the underlying variables which will affect the purchase decision. Next, the research discussed about the hypotheses of the study to find out the relationship between those variables. In significant of study, discussion about the important and contribution of the research to the academic and practitioner were included. Finally, a summary of the research was presented.

1.2 Research Background

Transportation is one of the key industries that government must provide to the public for the convenience of mobility. It inclusive of all modes of transport for instance buses, train, taxis, etc. (Sama, Chen, Nalluri, & Chendragiri, 2023; Zakaria, Hussin, Batau, & Zakaria, 2010). There is no exception for country such as Malaysia. In the public transportation system of Malaysia, taxi service is one of the important components (The Mayor of Kuala Lumpur, 2020). According to Aguilera-García, Gomez, Velázquez, and Vassallo (2022), taxi users are far more than the users for all other major public transportation such as bus, train, car rental and so forth. It becomes one of the favorable alternatives for many customers. This is due to taxi services providing several advantages and is considered as one of the most convenience public transport over the other (Bowen, 2021; Olly"s Cars, 2020; Zulkifli & Muhammad Yunus, 2019, Aarhaug, 2016).

First of all, taxi has its advantage over bus and train with wider route coverage especially to the destination where bus and train services are not available. Secondly, taxi services offer a much faster choice for customer to reach their destination as it did not stop for picking up or dropping off other passengers (Nguyen-Phuoc, Tran, Su, Oviedo-Trespalacios, & Johnson, 2021). Thirdly, the ability of carrying passengers" shopping and luggage make taxi services becomes first choice of customers when selecting types of public transport. Lastly, different from other types of public transport which has a fixed operating hours, taxi services provide convenience time where it operates 24 hours per day and 7 days per week, covering peak and non-peak hours, day and night, public and non-public holiday (Askari, Peiravian, Tilahun, &

Yousefi Baseri, 2020). In addition, taxi services also is the first choice for customers especially those from oversea as they do not need to worry if they are not familiar with the location or destination as the taxi driver at the same time can be their tour guide (Stavros, 2020; Soong, 2015; Thiru, 2014).

In Malaysia, taxi services is not only serve as a type of public transport, but it also plays essential role towards tourism industry as they often serve as tourism ambassadors for Malaysia (Iman, 2022; Soong, 2015; Thiru, 2014). This can be seen from the effort of Malaysia government in running the "Taxi Wrapping Advertising Campaign" through cooperation between Tourism Malaysia and Sango Taxi Association, Japan (The Star Online, 2014). In this cooperation, taxis are used as a medium to advertise Tourism Malaysia because taxis always operate non-stop according to a speech given by Malaysia Tourism and Culture Minister. Furthermore, Soong (2015) mentioned that taxi drivers are the first people where customers from overseas always have direct contact with during their visit to Malaysia as taxis are always the first public transport choice for many of them. Thus, service quality of taxis will influence overseas customers‟ impression towards Malaysia which will indirectly impact on Tourism Malaysia.

Similar to taxi which has the same advantages as discussed, Malaysia Grab Car service that founded in 2012 provide an alternative for many customers and tourists in Malaysia over other public transportation modes including taxi (Hu, Lin, Wang, & Jiang, 2022; Iwamoto, 2018). Grab Car service started with GrabTaxi in 2012 and provides a taxi-hailing app which called MyTeksi that allow users to book their taxi ride through an app (Salim, 2021). Further expansion in 2014, the company then launched Grab Car which uses personal cars in place of taxi via a licensed partner. In 2018, Grab Car even merged with Uber, another ride-hailing company started in 2013 which originally competing with Grab Car (Salim, 2021).

Through the acquisition of Uber, Grab Car has growing fast to become the top ride-hailing services in South East Asia (SEA) and maintains it lead in Malaysia which offers the fastest ride-hailing booking service of taxis and private cars via app (Chalermpong et al., 2023; Ahmad, 2019). Not only having operation in Malaysia, Grab Car also have its business in other SEA countries such as Singapore, Thailand, Indonesia, Philippines, Myanmar, Vietnam, and Cambodia (Iwamoto, 2018). By means of the biggest land fleet in SEA, Grab Car occupied 95% and 72% market share in 3rd party taxi-hailing and private vehicle hailing, respectively (Azman, 2017). According to Kathirgugan (2021), Grab Car earned 65% market share revenue for car rides in 2021. Based on Grab data in 2018, 70% of users from Indonesia booked Grab Car as their overseas rides in Malaysia (Grab, 2019). With nearly double user-penetration in Asia-Pacific region, ride-hailing service no doubt is a welcome move in Malaysia (Kumar, 2019).

Beside public transportation, Malaysia government start paying attention to the rise of ride-hailing services which including Grab Car in order to be competitive to its economy as Grab Car playing a complementary role to Malaysia public transportation system (The Straits Times, 2019). Ooi and Ahmad Nazar (2021) mentioned the popularity of ride-hailing service especially Grab Car undoubtedly affected on the taxi industry, as they are competing with all other public transportations service for the same limited group of customers (Hu et al., 2022).

Similar to taxi, the drivers are inseparable from the service and therefore the service quality of Grab Car is of equal important which have impact on customers‟ impression towards Malaysia.

As stated by Sama et al. (2023), service quality is important for public transportation beside its infrastructure and investment. On top of that, researchers such as Sharma (2013) and Zakaria Hussin, Batau, and Zakaria (2010) supported that the issue of service quality in public transportation is always important. This is because the service quality level of public transportation is depending on how good the service provided able to meet customers‟ requirement and desire via their perception. In order to measure service quality, Parasuraman, Zeithaml, and Berry (1985) developed SERVQUAL which consists of five dimensions namely reliability, assurance, tangibles, empathy, and responsiveness or in short called RATER which are adopted in this research to measure service quality in Malaysia taxi and Grab Car services. On top of that, this research also adopted two dimensions which are waiting time and valence from two-dimensional model developed by Grönroos (1984). Since the service quality of taxi and Grab Car services in Malaysia has a close connection towards tourism, hence, it is important for Malaysia government to look into the aspect on improving its quality of services provided.

1.3 Problem Statement

Although Malaysia government provided various public transport such as taxis, buses, train, etc., yet, Malaysia prime minister is concern on the service quality provided by the public transportation as the implementation is not executed well (Ministry of Transport Malaysia, 2019; Zakaria et al., 2010). Abstracted from the corporate site of Tourism Malaysia (2021), Table 1.1 show some achievements and recognitions gained as a result of the promotion of Malaysia Tourism. This has made Malaysia as a favorite tourism destination among tourists which also including local tourists. Result from this, the demand on taxi and ride-hailing services in Malaysia increase as tourists always need a convenience public transport in order to visit to their favorable destinations in Malaysia.

Table 1.1

Achievements and Recognitions of Malaysia Tourism

Achievements and Recognitions
● National Organisation of the year 2021/2022 and 2019/2020 by Indonesia Travel & Tourism Awards (ITTA) Foundation.
● World‟s Leading Country Tourism Board in 2021by Uzakrota Global Travel Summits.
● Kuala Lumpur ranked 20th for list of 52 Places to go in 2020 by New York Times.
● Malaysia ranked 7th World‟s 10 Best Places to Retire in 2020 by International Living.com
● Malaysia ranked 2nd as one of the friendliest cities & 14th as one of the most photogenic countries in the world Top 50 in 2020 by Big Seven Travel channel.
● Putrajaya, Penang & Kota Kinabalu won ASEAN Clean Tourist City Standard Award in 2020.
● Major Tourism Destinations of the world in 2019.
● Kuala Lumpur ranked 9th in Euromonitor International Top 100 City Destinations in 2019.
● Malaysia ranked 1st in Top Muslim Women Friendly Destination & Top 10 Halal-Friendly Holiday Destinations in 2019.
● Most preferred longstay destination in 2017.
● Genting Highlands recognized as the most popular tourist attraction in 2017.
● Kuala Lumpur recognized as the most popular tourist destination in 2017.

(continue)

Table 1.1 *(continued)*

Achievements and Recognitions
● Malaysia recognized as the most liked delicious destination, best outdoor experience destination, and best family travel destination in 2017.
● Kuala Lumpur recognized as the World‟s 5th Best Shopping Destination in 2016.
● Malaysia as Asia‟s leading destination and tourist board in 2015.
● Best Halal Travel Destination in 2015.

Adaptation from *Tourism Malaysia*, 2021.

However, despite Malaysia achieved good recognition, the poor service quality that provided by the taxi drivers in Malaysia caused tourists has bad impression towards the country and its people and thus affecting the image of Tourism Malaysia. On top of that, Malay Mail (2015) reported that many tourists give thumbs down because they had bad experience with taxi services in Malaysia. Besides, Paul (2016) also mentioned that Malaysia get the „worst taxi drivers in the world‟ reputation due to the bad services provided by taxi drivers especially in Kuala Lumpur. Many customers are dissatisfied with the services provided due to the bad experience they received (Amirnuddin, Turner, & Kamarulzaman, 2017).

One of the best taxi driver in Kuching, Halina Mohamad, who is the winner of Sarawak Tourism Taxi Competition (STTC) 2014 due to her outstanding service quality level, also shared her bad taxi experiences she met when visit to Kuala Lumpur (Chen, 2014). In the award presentation ceremony, she said a good taxi driver should be friendly, honest, polite, patient in answering questions, willing to share information, keeping taxi clean, and having neat appearance when serving passengers. However, she found that many comments about taxi services in Trip Advisor, one of the world‟s largest travel sites, are negative (TripAdvisor, 2022; Chen, 2014). Not only have that, in another website which is Malaysia Taxi Auto Fare, majority of the review on taxi Malaysia are all negative (Taxi Auto Fare, 2017).

Most of the complaints on Malaysia taxi services are about the service quality provided by taxi drivers (TripAdvisor, 2022; Taxi Auto Fare, 2017). For instance, some complaints concerning to the reliability of the service where the drivers purposely taking longer route, not trustworthy, irresponsible etc. Besides, there are complaints concerning to assurance such as reckless driving, bad and rude taxi driver, refuse to use taxi meters, overcharge etc. Not only on drivers, there are also complaints towards the tangibility of taxi car use for the service such as broken body and parts, old car, dirty interior etc. Moreover, complaints related to empathy such as selective on type of passenger and destination has never been less. Likewise, many complaints containing responsiveness of the taxi drivers such as delaying the service, no response to passengers‟ request, not informing passengers, unwilling to help are easily found. There are also complaints pertaining to waiting time where the taxi drivers keep their customers waited for a long time for the service. Lastly, from the review, it can be seen for some complaints related to valence aspect where customers did not feel good taking the ride on taxi and they believe the drivers did not bother to provide a good experience or knowing what the customers want.

The bad service quality of taxi in Malaysia drives customers looking for alternatives in traveling such as ride-hailing services from Grab Car. This has no doubt increase the popularity and usage of Grab Car services in Malaysia. Still, Grab Car is not totally without negative issues despite its successful (The ASEAN Post, 2019). Similar to taxi, complaints over Grab Car gone viral in social media and among this, complaints towards Grab Car drivers‟ behavior which concerning on reliability, empathy, and responsiveness is as high as 82% following by others complaints related to assurance such as pricing and promotions, waiting time such as waiting for rides and others (The ASEAN Post, 2019).

Complaints over Grab Car drivers have never been less than taxi and it is not hard to be found over the net. Similar to taxi, customers are complaining over Grab Car drivers‟ behavior such as rude, impolite, reckless driving which is related to assurance aspect; empathy aspect such as simply cancel customers booking, selective on customers, not driving passengers to designated location and instead drop off passengers at middle of the route; reliability aspect for instance sending passenger to wrong location; tangibility aspect such as driver did not wear neatly or even intentionally or unintentionally expose private body parts; responsiveness aspect for example not helping passengers load or unload baggage or luggage; and valence aspect where passengers did not feel good riding in a Grab Car (Complaints Board, 2022; Customer Care Contacts, 2022; Pissed Consumer, 2022; Trustpilot, 2022).

Worse than taxi, sexual harassment from drivers has always been the hot issue for Grab Car services in Malaysia. Often, the news of passengers being sexual harassed by Grab Car drivers is commonly seen in Malaysia. To pick a few, there are several sexual harassment cases has been reported in recent years. One of the case reported where a late 20s Malaysia woman in Petaling Jaya received “uncomfortable” messages from Grab Car driver during her ride (Astro AWANI, 2021; Athira Nortajuddin, 2021). Another incident happened in Cheras on a Malaysia woman who took a ride with Grab Car services when the driver sexually harassed her by asking if her breasts are real or implant (Yap, 2020). Similarly, a female passenger was being sexually harassed by the Grab Car driver during her ride to Sunway Pyramid (Nadee Mode, 2016). In the incident, the Grab Car driver tried to talk to the female passenger which make her felt uncomfortable. The driver even whistles at her and asked personal questions. Not only that, the female passenger later noticed that the Grab Car driver had his privates out for display.

Beside sexual harassment, there are several cases also been found whereby the Grab Car driver abused on the passenger. A Canadian tourist who visits to Malaysia, reported complaint to Grab on her bad experience where she was being verbally abused and harassed by Grab Car driver when she requested him to take her preferred route in Bangsar. The driver then was threatened her and even chased her both with his car and then on foot when she tried to run away (Khor, 2017). Another incident which took place in Kuala Lumpur where a Grab Car driver punched a 63 years old elderly lady when the later ask a few questions to confirm if she was getting into the right car (New Straits Times, 2019). Other than that, customer reviews online also commented negatively on driver rudeness driving which causing accident, illegally parking at prohibited area etc. One of the hit-and-run accident involve Grab Car was happened in Kuala Lumpur where a Taiwanese woman died on the spot in the accident while her Taiwanese companion and the Malaysia Grab driver were injured (Matthew, 2019). Some also complaints the fares charge by Grab Car is too high and even more expensive than taxi in Malaysia (Chung, 2018; Nurul Azwa Aris, 2018).

Based on a study done by Citrine Once Sdn. Bhd., Grab Car services in Malaysia scored the lowest in effective crisis management due to the multiple issues related to Grab Car drivers‟ and passengers‟ safety, sexual assaults, and robberies (SME Magazine Asia, 2019; BebasNews, 2019). Similar to taxi services, the complaints on Grab Car services in Malaysia are also about the service quality particularly related to reliability, assurance, tangibles, empathy, responsiveness, waiting time, and valence. Therefore, this research not only intend to examine the impact of service quality dimensions on customer satisfaction on Malaysia taxi services, but also examine on Grab Car services in Malaysia and compare both.

From the past studies, there are literatures focus on service quality in the context of public transportation as overall (e.g. Nguyen-Phuoc, Su, Tran, Le, & Johnson, 2020; Liu, Siali, Darun, & Ismail, 2014; Ismail, Hafezi, Nor, & Ambak, 2012; Ilhaamie, 2010), yet not many literatures focus on service quality and its dimensions in particular ride-hailing such as taxi and Grab Car services. It is even less literatures do comparisons study on both. Moreover, majority of the past studies related to service quality only focused on Parasuraman‟s SERVQUAL model, which is a five dimensions‟ model namely reliability, assurance, tangibles, empathy, and responsiveness; or in brief, RATER (Quek & Eze, 2010; Ladhari, 2008; Qin & Prybutok, 2008; Chua & Luk, 2005; Lee & Ulgado, 1997). Though SERVQUAL is widely being used in various industries, yet, some criticized that SERVQUAL only focuses on service delivery process, or functional aspect of service quality (Choy, 2013; Richard & Allaway, 1993; Mangold & Babakus, 1991; Grönroos, 1990). Not only that, there are some other criticisms on the SERVQUAL model including the use of different scores, use of reflective scales, reliability of the model, dimensionality of the instrument, as well as ambiguity of customer expectations‟ definitions (Carrillat, Jaramillo, & Mulki, 2007; Collier & Bienstock, 2006; Diamantopoulos, 2005; Parasuraman, Zeithaml, & Malhotra, 2005; Kilbourne, Duffy, Duffy, & Giarchi, 2004; Rossiter, 2002).

In order to have a more complete assessment on customers‟ perceived service quality, Kang (2006) argued that technical aspect of service quality or service outcome is another important measurement besides service delivery process. For this reason, some past literatures agreed that both technical quality and functional quality should be included when measuring service quality (Su et al., 2022; Choy, 2013; Baker & Lamb, 1993; Mangold & Babakus, 1991; Grönroos, 1990, 1982). In view on this, Grönroos (1984) developed a two-dimensional model where service quality dimension is divided into two, namely technical quality and functional quality. Waiting time, tangibles, and valence are what customers always look into under technical quality when they evaluate the service quality provided by Malaysia taxi and Grab Car (Brady & Cronin, 2001; Dabholkar, Thorpe, & Rentz, 1996). Whereas, dimensions from Parasuraman SERVQUAL model namely reliability, assurance, tangibles, empathy, and responsiveness, or RATER, are often being referred under functional quality in the evaluation of service quality (Kang & James, 2004; Grönroos, 1982).

Richard and Allaway (1993) mentioned that by using only functional quality to judge customers‟ behavior, it has low predictive validity. Likewise, by only focusing on technical quality, it is difficult to achieve total perceived service quality and service management effectiveness (Ferguson, Paulin, Pigeassou, & Gauduchon, 1999). For that reason, this research intends to fill up the literature gap by joining both technical quality and functional quality in assessing the impact of service quality towards customer satisfaction in Malaysia ride-hailing services. On top of that, given the ongoing issues arise from bad service quality provided by taxi as well as Grab Car drivers in Malaysia, it is essential to have more literature focusing in a particular type of ride-hailing services such as taxi or Grab Car, more specifically to have a comparison of both, so as to improve ride-hailing services in Malaysia which will eventually help in promoting Tourism Malaysia. In a nutshell, this research intends to use a more comprehensive service quality dimension which combining both technical quality and functional quality in examining its impact towards customer satisfaction for both taxi and Grab Car in Malaysia and compare between both.

1.4 Research Objectives

General Objective

- The primary objective is to compare the impact of service quality on customer satisfaction for both taxi and Grab Car services in Malaysia.

Specific Objectives

(1) To determine if reliability significantly affects customer satisfaction in Malaysia taxi and Grab Car services.

(2) To determine if assurance significantly affects customer satisfaction in Malaysia taxi and Grab Car services.

(3) To determine if tangibles significantly affects customer satisfaction in Malaysia taxi and Grab Car services.

(4) To determine if empathy significantly affects customer satisfaction in Malaysia taxi and Grab Car services.

(5) To determine if responsiveness significantly affects customer satisfaction in Malaysia taxi and Grab Car services.

(6) To determine if waiting time significantly affects customer satisfaction in Malaysia taxi and Grab Car services.

(7) To determine if valence significantly affects customer satisfaction in Malaysia taxi and Grab Car services.

(8) To determine the significant difference in service quality between Malaysia taxi and Grab Car services.

(9) To determine the significant difference in customer satisfaction between Malaysia taxi and Grab Car services.

1.5 Research Questions

From the problem statement and objectives, this research intends to answer the following research questions:

(1) Does service quality dimension significantly affect customer satisfaction in Malaysia taxi and Grab Car services?

(2) Is there significant difference in service quality between Malaysia taxi and Grab Car services?

(3) Is there significant difference in customer satisfaction between Malaysia taxi and Grab Car services?

1.6 Research Hypotheses

Derive from the research objectives, with the aim of examining the relationship between service quality and customer satisfaction for taxi and Grab Car services in Malaysia and to compare both, the following nine hypotheses are developed for the research study. With such hypotheses, result from this research is expected to found support relationship between all the seven dimensions of service quality towards customer satisfaction, as well as significant difference in service quality and customer satisfaction between Malaysia taxi and Grab Car services.

H1a: Reliability has a positive relationship towards customer satisfaction in Malaysia Taxi services.

H1b: Reliability has a positive relationship towards customer satisfaction in Malaysia Grab Car services.

H2a: Assurance has a positive relationship towards customer satisfaction in Malaysia Taxi services.

H2b: Assurance has a positive relationship towards customer satisfaction in Malaysia Grab Car services.

H3a: Tangibles has a positive relationship towards customer satisfaction in Malaysia Taxi services.

H3b: Tangibles has a positive relationship towards customer satisfaction in Malaysia Grab Car services.

H4a: Empathy has a positive relationship towards customer satisfaction in Malaysia Taxi services.

H4b: Empathy has a positive relationship towards customer satisfaction in Malaysia Grab Car services.

H5a: Responsiveness has a positive relationship towards customer satisfaction in Malaysia Taxi services.

H5b: Responsiveness has a positive relationship towards customer satisfaction in Malaysia Grab Car services.

H6a: Waiting Time has a positive relationship towards customer satisfaction in Malaysia Taxi services.

H6b: Waiting Time has a positive relationship towards customer satisfaction in Malaysia Grab Car services.

H7a: Valence has a positive relationship towards customer satisfaction in Malaysia Taxi services.

H7b: Valence has a positive relationship towards customer satisfaction in Malaysia Grab Car services.

H8: There is a significant difference in service quality between Malaysia taxi and Grab Car services.

H9: There is a significant difference in customer satisfaction between Malaysia taxi and Grab Car services.

1.7 Conceptual Framework of Research

The conceptual framework of this research is adapted from SERVQUAL model developed by Parasuraman et al. (1985) as well as Two-Dimensional model developed by Grönroos (1984). The proposed conceptual framework used all the seven dimensions of service quality as independent variables, which consists of reliability, assurance, tangibles, empathy, responsiveness, waiting time, and valence. Meanwhile, dependent variable of the research is customer satisfaction. This research intends to examine the relationship of service quality dimensions towards customer satisfaction in Malaysia taxi and Grab Car services. Moreover, this research also intends to compare the difference in service quality and customer satisfaction between Malaysia taxi and Grab Car services. Figure 1.1 show the proposed conceptual framework of this research which will be further discussed in the next chapter.

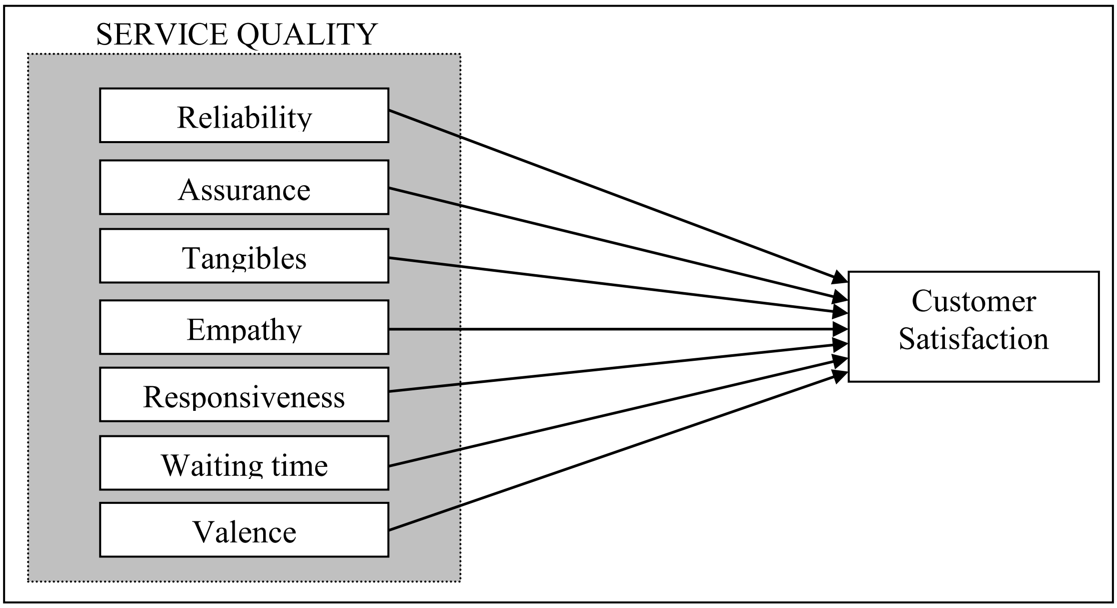
SERVICE QUALITY
Reliability
Assurance
Tangibles
Empathy
Responsiveness
Waiting time
Valence
Customer Satisfaction

Figure 1.1. Proposed Conceptual Framework

1.8 Significance of the Study

1.8.1 Managerial Significance

The outcome from this research is expected to be reliable and representative. Results from the research findings provide significant contribution to the successfulness of Malaysia taxi and Grab Car services which currently having negative image from public due to its bad services (Paul, 2016; Malay Mail, 2015; Chen, 2014; Zakaria et al., 2010). As we know, successful of ride-hailing services such as taxi and Grab Car heavily rely on how well the companies satisfy its customers (from products offerings to quality of services). Therefore, service quality in public transportation is important (Sharma, 2013; Zakaria et al., 2010). This is crucial as taxi and Grab Car is one of the important public transports (The Mayor of Kuala Lumpur, 2020) and has impact towards tourism (Soong, 2015; Thiru, 2014). In this research, the study focus on comparing the difference in service quality and customer satisfaction between taxi and Grab Car services in Malaysia. Thus, results from the findings able to provide useful and important information for Malaysia taxi and Grab Car services in order to better understand customers‟ expectation and what they are looking for when using ride-hailing services so as to make improvement to the industry.

1.8.2 Theoretical Significance

Meanwhile, the results and findings also expected to enhance literatures toward academic. Majority of literatures were focus on public transportation services and neglect particular types of public transport especially taxi and Grab Car services which considered one of the upmost essential public transports for a country (e.g. Liu et al., 2014; Ismail et al., 2012; Ilhaamie, 2010). Rather than looking at Malaysia public transportations as a whole, this research focus particularly in taxi as well as Grab Car by comparing on both services due to the important and its impact towards Malaysia public transports and tourism industry as discussed previously. There is not much comparison study has done previously as majority either study on the entire industry or focus on a particular transportation mode. Thus, this research can fill the gap by providing more literatures in comparative study.

In addition, neither the SERVQUAL model developed by Parasuraman et al. (1985) nor Two-Dimensional Model developed by Grönroos (1984) has comprehensive discussion on its dimensions. Criticism of SERVQUAL model has never being stop as it only focuses on process quality and neglect the important of outcome quality. On the other hand, although the Two-Dimensional Model included process and outcome quality, yet the discussion focuses more on outcome quality where there is lack of evidence found in the model for detailed process quality discussion. For this reason, this research fills the gap by combining both models and discusses thoroughly all service quality dimensions under process quality and outcome quality. The knowledge on service quality and its determinants from the research is expected to contribute for future researchers to look into various service quality dimensions instead of single dimension so as to increase its reliability and credibility of the research.

1.9 Scope of the Study

The scope of the study serves as a guideline and reference to provide better understanding on the discussion flow for the upcoming chapters. The research used quantitative and cross-sectional study with the intention to examine the relationship of the seven service quality dimensions, namely reliability, assurance, tangibles, empathy, responsiveness, waiting time, and valence towards customer satisfaction on taxi and Grab Car services in Malaysia. Besides, the research also intends to find out the difference in service quality and customer satisfaction between taxi and Grab Car services in Malaysia.

The proposed conceptual framework in this research is adapted from SERVQUAL model developed by Parasuraman et al. (1985) as well as Two-Dimensional model from Grönroos (1984). Parasuraman used five dimensions (reliability, assurance, tangibles, empathy, and responsiveness) in measuring service quality. Anyhow, criticisms on SERVQUAL being argued throughout the year that it only measures functional (process) aspect of service quality and ignore the technical or outcome quality. In a different way, Grönroos used both technical and functional quality in measuring service quality and the technical aspect of quality consists of waiting time, tangibles, and valence. From Brady and Cronin (2001) and few researchers, the dimension of tangibles in both functional quality and technical quality refers to the same and it is more suitable measure as an outcome quality. In order to have more complete review on service quality, the proposed conceptual framework in this research used all the seven dimensions of service quality, namely reliability, assurance, tangibles, empathy, responsiveness, waiting time, and valence as independent variables. Meanwhile, dependent variable of the research is customer satisfaction.

This research adopted the self-administrated survey questionnaires to collect the feedback from local tourists who had used taxi and Grab Car services in Malaysia particularly in Selangor, Wilayah Persekutuan Kuala Lumpur, Johor, Penang, and Perak. Items in survey questionnaires are adapted from the past literatures. A preliminary test with expert validity is carried out to assess the suitability for the items being measured in the survey questionnaire, follow by a pilot study on a group of 30 respondents in assessing the reliability of the questionnaire before actual data collection.

The unit of analysis for this research focuses on the local tourists from 15 years old and above who had used taxi and Grab Car services in Malaysia particularly in Selangor, Wilayah Persekutuan Kuala Lumpur, Johor, Penang, and Perak. Fifteen years old and above are targeted as this is the minimum legal age of working in Malaysia and they have the spending power from income acquired through working. In order to be able to generalize the findings, this research adopted quota sampling which is a two-stage non-probability sampling techniques where the results are considered to be the nearest to the results obtained via probability sampling techniques. At first stage, location, particularly the targeted five states in Malaysia

(Selangor, Wilayah Persekutuan Kuala Lumpur, Johor, Penang, and Perak) used as control category. A total of 500 questionnaires are distributed as proportioned to the number of tourists at each state. Then, in the second stage of quota sampling, the target respondents are selected via judgment.

1.10 Limitations of the Study

Few limitations are found from this research. First of all, this is a research that study on customer satisfaction on ride-hailing services in Malaysia purely from the aspect of service quality. From the criticisms on SERVQUAL and the dimensionality found in past studies, this research has close the gap making improvement on service quality study which cover more comprehensive dimensions. This is seen from the improved explanatory power for the structural model in this research, where 63.3% and 64.0% variances in customer satisfaction is explained by all the seven service quality dimensions for taxi and Grab Car services respectively. However, the limitation on the explanatory power of the model is still exists. From the results of explanatory power, it shows there are still remaining variances of 36.7% for taxi services and 36.0% for Grab Car services is unexplained by service quality but other factors which have influence on customer satisfaction.

Secondly, despite this research has taken steps in selection of suitable target respondents and data collection procedure, yet the response is somehow slightly not as expected. In this research, none of the target respondents is from the age group above 55 years old, and very little of them are aged between 46 to 55 years old although these two age groups are still within the study focus in this research. As such, the findings from this research may not able to represent the actual behavior of these two age groups especially those who age above 55 years old in explaining how the service quality influence on customer satisfaction in taxi and Grab Car services in Malaysia. Although these groups are not the largest age population in Malaysia, yet it is still having a considerable size in making up total age population group in Malaysia. Moreover, disposable income from these groups is higher and thus spending in leisure and after retirement activities such as traveling and tourism is common for this group of customers. As such, response from these age groups is important as well since their usage of taxi and Grab Car services may not be lesser than other for their leisure activities and traveling purposes.

1.11 Operational Definition

There are together seven independent variables from service quality and customer satisfaction as dependent variable being used in this research in examining the relationship between all the seven dimensions of service quality towards customer satisfaction on taxi and Grab Car services in Malaysia. All these constructs are adapted from the past literatures (Quek & Eze, 2010; Huddleston, Whipple, Mattick, & So, 2009; Pollack, 2009; Qin & Prybutok, 2009, 2008; Karen & Boo, 2007; Chang, Hsiu, & Gow, 2006; Kang, 2006; Olorunniwo, Hsu, & Udo, 2006; Kang & James, 2004; Brady & Cronin, 2001; Ekinci, 2001; Johns & Howard, 1998; Kara, Kaynak, & Kucukemiroglu, 1995; Parasuraman, Zeithaml, & Berry, 1994; Cronin & Taylor, 1992; Bettencourt, 1977).

1.11.1 Service Quality

Service quality is viewed as overall judgment of the delivery of superior or outstanding services perceived by customers in relation to customers‟ expectations to conclude satisfaction and future patronage (Olawole, 2021; Wisner & Corney, 2001; Zeithaml & Bitner, 1996; Parasuraman, Zeithaml, & Berry, 1985). That is, whether the customer perceived a taxi and Grab Car services to be good or bad is the result of the comparison between their expectations and perceptions.

1.11.1.1 Reliability

Reliability in service means being able to constantly provide a service accurately and dependably to customers as promised (Sam, Hamidu, & Daniels, 2018; Zakaria et al., 2010; Parasuraman, Zeithaml, & Berry, 1988). In transportation industry it refers to the ability of taxi and Grab Car service providers to perform their services precisely to customers as promised.

1.11.1.2 Assurance

Assurance in service refer to the extent of confidence and trust that a service provider is able to create in the customers based on interactions between both parties (Olawole, 2021; Zeithaml, Bitner, & Gremler, 2006; O‟Neill & Palmer, 2003; Parasuraman et al., 1988). In order to build confidence and trust among customers, taxi and Grab Car service personnel need to have required skills, knowledge, and information and serve customers in a polite manner, respectful, considerate, friendly, and trustworthy.

1.11.1.3 Tangibles

Tangibles in service refers to the physical evidence of the service, including physical facility, tools or equipment, personnel and communications materials use, appearance of service personnel, and appearance of other customers in the service facility (Olawole, 2021; Zakaria et al., 2010; Parasuraman et al., 1988). Some examples of these physical cues include cleanliness of taxi and Grab Car interior, windows and seats; up-to-date and good working condition equipment; clean and appropriate taxi and Grab Car waiting areas; appropriate taxi and Grab Car drivers‟ attire.

1.11.1.4 Empathy

Empathy in service involves caring and providing individualized attention to customers, treating customers in a way that they feel that they are essential to the firm, and their needs are important to the firms‟ performance (Ocampo et al., 2021; Zeithaml et al., 2006; O‟Neill & Palmer, 2003; Parasuraman et al., 1988). Thus, it is important to have clear and regular communications with customers and pay individual attention to them to know their needs and requirements for taxi and Grab Car services such as convenient operating hours, convenient pick up or drop-off points, and wide coverage of location.

1.11.1.5 Responsiveness

Responsiveness refers to the willingness of the service providers in assisting the customers" requirements and complaints as well as the ability and readiness to provide prompt services to the customers (Brown & LaValle, 2021; Zakaria et al., 2010; Nakhai & Neves, 2009; Zeithaml et al., 2006; Parasuraman et al., 1988). Taxi and Grab Car driver must be accountable, responsive, intelligent and calm in handling customers" needs and complaints. Failure to do so, it brings negative impact to the taxi and Grab Car service quality evaluation.

1.11.1.6 Waiting Time

Waiting time in service means the interval time period customers start waiting for a service until the point that they receive the service, that is, the amount of time that customers spend waiting for a service (Faizan, Kashif, Rupam, & Jeon, 2017; Brady & Cronin, 2001; Parasuraman et al., 1985). Service punctuality in taxi and Grab Car is important and recognized by customers as an integral part of their overall evaluation.

1.11.1.7 Valence

Valence in service is defined as the post-consumption assessment on the degree to which service outcome is favorable or unfavorable (Wu & Ko, 2013; Brady & Cronin, 2001; Mazis, Ahtola, & Klippel, 1975). Despite customers" assessment of any other characteristics of their experience in taxi and Grab Car services, whether customers believe that a service outcome is good or bad is controlled by the attributes of valence although those factors are not within the direct control of the service management.

1.11.2 Customer Satisfaction

Customer satisfaction involves "post consumption" experience where customers will compare perceived quality with expected quality (Olawole, 2021; Sivadas & Baker, 2000; Anderson & Fornell, 1994; Parasuraman et al., 1985). Customer satisfaction is viewed as an emotional reaction towards customer purchase experience accumulated from a particular taxi and Grab Car services resulted from their overall assessment.

1.12 Organization of the Study

The body of the research consists of five chapters, which are from chapter one to five. In chapter one, the initial introduction of the research is included and followed by research background. Problem statement, research objectives, research questions, and research hypotheses are discussed as well. This chapter also explains conceptual framework of the research and significances of the study as well as a brief outline of the study.

Chapter two discusses the introduction and review of relevant literature related to service quality, together with the reviews of some relevant service quality models.

This is followed by discussion on service quality in the public transportation industry and other industries. Literatures on customer satisfaction and service quality dimensions are also reviewed together with the development of hypotheses. A proposed conceptual framework is then developed. The chapter ends with a brief conclusion.

In chapter three, the research design is specified. Data collection methods, sampling design, research instrument, and construct measurement are discussed. Subsequently, data analysis that states the computer program used to analyze the data is described. Ultimately, there is a conclusion for chapter three providing a summary of the major themes addressed in the chapter.

Chapter four presents the descriptive analyses that discuss the respondents" demographic profile and central tendencies measurement of constructs. There is a scale measurement that provides the results of inter-item reliability analysis. Results from the study are used to compare with the expected results and results from literatures in both the same and different industries. Lastly, conclusion of chapter four provides the linkage for next chapter.

In chapter five, it provides the introduction as a linkage to the main themes of the previous chapter and to outline the aim and organization of chapter five. Discussions of the major findings are included to validate the research objectives, research questions, and hypotheses. Theoretical and managerial implications of the study are provided for the reference of academicians and practitioners. Last but not least, limitations of the study and recommendations for future research are discussed. The chapter ends with the conclusion of the research.

1.13 Summary

Today public transportation industry in Malaysia becomes more and more competitive. Thus, taxi and Grab Car services providers must know the factors which can affect customers‟ satisfaction level in using their services so as to sustain and to continue to grow in the market. Taxi and Grab Car service providers must constantly acquire latest competitive market information and this research will help them to identify important factors and information to facilitate their strategy formulation. The next chapter begins with a literature review on the topic in question to examine what previous researches have uncovered.