

## **Factors Influencing Consumer Satisfaction towards E-hailing Service among Malaysian**

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**Abstract:** E-hailing services are on-demand vehicles acquisition services that rely on Internet connectivity and the usage of a specialised digital application. Customers' need for online transportation has grown with the launch of e-hailing apps, due to the convenience it provides in recent times. The legalisation of e-hailing services in Malaysia has accelerated the industry's expansion. However, e-hailing does not have a fixed rate pricing during peak hour like others public transport, in which this has cause dissatisfaction of consumer for paying extra charges. As a result, the purpose of this study was to examine the most dominant factors influencing consumer use of e-hailing services in Malaysia, as well as to assess the relationship between factors influencing consumer satisfaction and e-hailing services in Malaysia. In this study, the quantitative method was applied. The questionnaires have been distributed to the respondents in Malacca, Malaysia, using Google Forms. The data was collected and analysed using the Statistical Package for Social Science (SPSS), with a response rate of 39.06 percent. The descriptive analysis revealed that perceived ease of use was one of the most important factors influencing the use of e-hailing services in Malacca. E-hailing service and perceived convenience showed a significant relationship. While there was no significant relationship between e-hailing and mobile payment, price, perceived ease of use, or perceived usefulness. The findings could be used as a reference for future e-hailing companies.

**Keywords:** E-hailing service, Consumer satisfaction

### **1. Introduction**

This chapter will provide the overview of factors influencing consumer intention towards e-hailing service among Malaysian. The discussion will start with research background, problem statement, research objectives, research scope and significant of study.

E-hailing service is an internet based technology that allow people to book their driver from one destination to another. There are total of 42 types of e-hailing firm in Malaysia based from the Land

Public Transport Agency (APAD). E-hailing services are on-demand vehicle rental services that rely on network connectivity and the usage of a specialised digital application over the Internet (Ahmand & Azizan,2020). Majority of Malaysian preferred to use e-hailing service rather than public transport or taxis due to its comfortableness and punctuality.

E-hailing service are meant to fill the gap on the demand for taxis or others public transport. It is also believe it can reduce the number of private vehicle. E-hailing service also meant to reduce the number of private vehicle and the number of car parked at the parking lot. The benefits of e-hailing are it does not require passengers to wait at the designated area such as bus or train station. E-hailing allow their passenger to pin their location and within the estimated time, the driver will arrived. E-hailing provides a cutting-edge ride-booking service to ensure that the system connects drivers and customer is adaptable, simple to use and reliable (NACTO, 2016).

Many city dwellers have quickly adopted this e-hailing alternative as an endeavour that directly helps them by lowering the cost of transportation and reducing the time it takes to acquire a ride because public transportation is frequently insufficient to meet the high demand by customers (Santos & Xavier, 2015). In Malaysia, the emergency of e-hailing service has introduced a new dimension to going from one location to another, with a map embedded in a smartphone allowing pick-up and drop-off points from anywhere.

E-hailing service has the highest demand out of all the public transport. In Malaysia, e-hailing private vehicles with e-hailing stickers are becoming increasingly widespread. However, e-hailing does not have a fixed rate pricing during peak hour like others public transport, in which this has cause dissatisfaction of consumer for paying extra charges. In a review article by (Chung, 2019), because e-hailing costs are too costly, some Malaysians are switching to taxis or other forms of public transportation. The higher costs are due to the e-hailing dynamic pricing approach. Prices fluctuate according to supply and demand in high-traffic areas, and naturally spike during rush hours. Taxis, on the other hand, charge a set fare based on the distance and time spent travelling. Nonetheless, some taxi drivers who refuse to utilise the metre continue to be a problem in Malaysia. There has been a considerable increase in the number of complaints lodged against e-hailing services, such as pricing increases.

Therefore, to achieve the research objectives the most dominant factors influencing consumer the use of e-hailing service in Malaysia are analysed. Consequently, the relationship between factors influencing consumer satisfaction and e-hailing service in Malaysia is evaluated.

This study will be conducted in Malacca, Malaysia and the target respondent will be consumer that age 15 and above and have ever used the e-hailing services in Malaysia. The focus of the study if to find out the most dominant factors that influencing consumer satisfaction towards e-hailing service and the relationship between consumer satisfaction with e-hailing service. In this research, the data collected are from various demographic standards. This is because the focus is on the individual satisfaction of using the e-hailing service in Malaysia. So that the respondent can provide relevant and reliable information for this research. The data were collected from the main empirical data through online questionnaires in method survey form in order to measure the factors influencing consumer satisfaction towards e-hailing service in Malaysia.

This research was conduct to identify the most dominant factors influencing consumer satisfaction towards e-hailing service in Malacca, Malaysia. It is also to find out what are the most dominant factors that influence consumer satisfaction to choose e-hailing as one of their public transportation. This research's finding are significant because it helps consumer to determine which public transport best suit them.

In addition, the findings of this research may as a references to the e-hailing company in Malaysia to understand more on the consumer satisfaction towards the most dominant factors that influence

consumer satisfaction to choose the e-hailing service as their public transport. The e-hailing company are also able to take actions on what attract consumer the most in order to provide better services in the future.

## 2. Literature Review

The This chapter will provide the evidence of selected literature review on factors influence consumer intention towards e-hailing service in Malaysia and an overview of e-hailing service in Malaysia.

### 2.1 Overview of E-hailing

Malaysia e-hailing such as GrabCar or MyCar refers as a reserving trip and paying for a car service through a smartphone application with a transportation network company (TNC). E-hailing also known as ride-hailing, ride-booking or on-demand ride. According to Ministry of Transport Malaysia Official Portal, e-hailing are private vehicle that use as type of public transport which register under ones e-hailing firms. Internet is expanding especially in this era of digital service, e-hailing has quickly acquired popularity among consumer in this digital era (Kaur & Anisha, 2020; Idros, Mohamed, & Jenal, 2019; Shaheen *et al.*, 2017; N. Stalmašeková *et al.*, 2017).

E-hailing has gained its popularity in transportation because of the ease of booking using smartphone applications or mobile devices. To book an electronic ride, the consumer must first provide his pick-up location, which he can do by inputting his address or utilising GPS connectivity. E-hailing is a new business trend these day, as a growing network of e-hailing services leads to more competition in the e-hailing industry. This is because the number of individuals utilising the internet is increasing and the company has successfully expanded (Wang, 2019; Elias *et al.*, 2020; Sakaran *et al.*, 2018).

Ride-sharing has developed as a mode of transportation with the potential to reduce the number of vehicles on the road while also filling a demand gap for other public transit options. It also demonstrated a cutting-edge ride-booking service to ensure that the system that connects drivers and customers is flexible, easy to use, and trustworthy. Currently Malaysia have at least 42 types of e-hailing firms in the market (Wang, 2019; Idros *et al.*, 2019; Teo *et al.*, 2018).

### 2.2 Factors Influencing Consumer Satisfaction

#### (a) Customer satisfaction

According to Kotler & Keller (2006), customer satisfaction are defined as a person emotion of joy or disappointment as a result of comparing a product's or services perceived performance or outcome to his or her expectations. Consumer happiness, in fact may serve as a focus point for business to sell their products and services since it allow enterprises to fulfil their goals as customer purchase from them, which helps them gain competitive advantages in the market. As a result, customer are happy when their expectations for products or services are fulfilled (Bismo, Sarjono, & Ferian, 2018; Hashim *et al.*, 2020; Mohamad *et al.*, 2020; Omar *et al.*, 2020).

Consumer satisfaction is very important, because a satisfied consumer will definitely come back and they even will recommend to their family and friends. Word of mouth marketing is very important and useful in promoting a company services or products because it is come from their family member or friends so it is more trusted. Customer satisfaction is vital for e-hailing services since it may justify consumer's demands and wishes, as well as boost market share from services that deliver from a firm (Phuong & Dai Trang, 2018; Samengon *et al.*, 2020).

*(b) Mobile payment*

Mobile payments refers as a combination of mobile technology with an online payment system that allows consumer to pay for their products or services by completing and authorising a financial transaction over a mobile network or wireless communication technology (Qasim & Abu-Shanab, 2015). E-hailing are one of the public transport that adopt the innovation of mobile payment method by using their very own applications in their mobile phone. E-hailing have gained popularity in part because they are cashless, with the fare instantly charged to the rider's account once the vehicle arrived at its destination (Rayle *et al.*, 2014).

According to (Koenig-Lewis *et al.*, 2015) examined that mobile payments are generally adopted among young consumers. In the Technology Acceptance Model (TAM) suggest that perceived usefulness are one of the acceptance behaviour over the usage of information system. E-hailing mobile payment is useful because by entering the recipient's phone number or scanning the QR code on the receiver's phone, user can send credits to one another (Hio, 2017).

H<sub>1</sub> : There is a relationship between mobile payment and e-hailing service

*(c) Price*

In the context of services, price is crucial because it is the most important component of the marketing mix. Price is one of the most important factors that consumer will consider before purchasing a products or service (Teo *et al.*, 2018). Consumer will compared the price with the quality and does it worth spending money on the product or services. E-hailing firms use surge pricing during times of strong demand, resulting in various charges for price and driver management, particularly during peak hours. As a result, perceived price become one of the most important elements influencing passenger decision-making (Wan Mohamad *et al.*, 2016)

In terms of transportation, consumer will still compare the price with others public transport and decide how much e-hailing can offers to the passengers. Pricing is a very critical indication that influences affordability in connection to the rates paid and the services offered. In comparison to others types of transportation such as taxis, e-hailing service provide on-demand services at a more reasonable price. Price may have an impacts on the decision to utilise e-hailing service (Yi *et al.*, 2016).

H<sub>2</sub> : There is a relationship between price and e-hailing service

*(d) Perceived convenience*

Perceived convenience could be characterised as an option to conventional modes of transportation that are comparable to common public transit but offer greater amenities, making it more convenient for passengers with a fixed fare and a variety of payment options accessible as alternatives, depending on the customer's convenience (Teo, Mustafa & Rozi, 2018). Several factors contributed to the convenience of ride-sharing services over public transport, with availability being the most important. E-hailing services are also available 24 hours a day, 7 days a week. Late night public transit is difficult to get by, and most public transportation stop running after certain time.

According to (Zhang, Yan & Zhao, 2016) customers' intention are positively influenced by convenience. This is because e-hailing offered a secure and convenient means of transportation with the assurance fixed fee before using the service. This gives consumer the feeling of secure and avoid being cheated by drivers as the fare are already shown on both the drivers and passengers' mobile phone. E-hailing is increasingly being utilised for social and leisure trips, errands and work travel and special occasions according to new evidence (Hampshire *et al.*, 2017; Rayle *et al.*, 2016; Grahn *et al.*, 2020).

H<sub>3</sub> : There is a relationship between perceived convenience and e-hailing service

(e) *Perceived ease of use*

Perceived ease of use relates to a person’s belief that they use the system to complete transactions quickly and easily, and it does not cause any difficulty to the consumer. Passengers believe that using public transport is more convenience and more enjoyable because it can reduce the cost of transportation (Gumilar, Oliver, Gunawan, and Sfenriantol, 2019). In other word, perceived ease of use also refers as consumers’ ability to request a trip using a mobile phone with no errors and intuitively comprehensible functionality.

The overview of perceived ease of use as the degree to which a system is perceived to be effort-free. Author also show an example such as if an e-hailing service turns out to be a very simple digital item, it reduces the effort required to grasp important concepts for all types of end users. It brings people and technology closer together, hence raising a country’s overall standard of living. Consumers' intentions to use e-hailing services are influenced by the availability of the service and the required resources, such as a smartphone, knowledge, and abilities to use the e-hailing application, according to (Fleischer & Wahlin, 2016; Zafar *et al.*, 2018).

H<sub>4</sub> : There is a relationship between perceived ease of use and e-hailing service

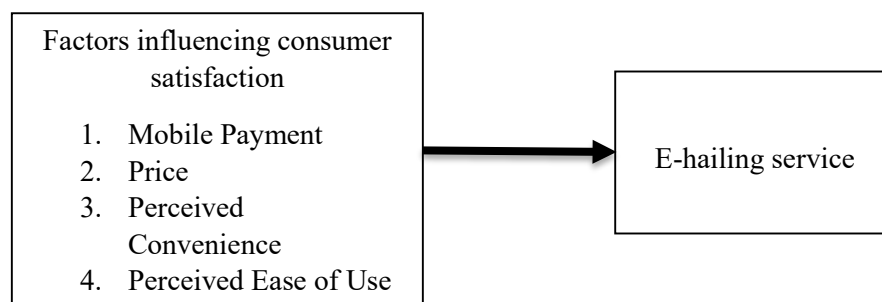
(f) *Perceived usefulness*

According to Weng, Zailani, Iranmanesh & Hyun (2017) perceived usefulness is described as a person’s perception of how beneficial public transportation is in supporting their travel activities. Consumer tend to accept new information technology more easily if they feel it can improve their efficiency and effectiveness in doing it. Consumers can see a considerable different between e-hailing and others public transport low wait periods, consistency across time and place, rapid and trustworthy response (Rayle *et al.*, 2016; Weng *et al.*, 2017; Lee *et al.*, 2018).

Consumers’ profound concerns regarding the usefulness of a mobile payment service, particularly the use of cashless payment such as GrabPay, are said to have used the key route to create their trust in mobile payments in the context of mobile payments (Zhu, Lan & Chang, 2017; Ahmad & Ahmad, 2019). Users are willing to follow e-hailing applications because it makes their life easier, according to the literature on the subject (Liu, 2015).

H<sub>5</sub> : There is a relationship between perceived usefulness and e-hailing service

2.3 Conceptual Framework



**Figure 1: Conceptual framework**

This conceptual framework shows that the independent variables are the factors influencing consumer intention such as customer satisfaction, cashless payment, price, perceived convenience, perceived ease of use, perceived usefulness and perceived behavioural control while the dependent variables are e-hailing service. In order to build a conceptual framework for factors influencing consumer satisfaction towards e-hailing services, the researchers applied Joia & Altieri’s (2018) a

research model of the antecedents of continues use intention of e-hailing apps from the passenger's perspective.

### 3. Research Methodology

The This chapter will discuss about the methodology that was used to carry out this study in order to achieve the research objectives. In this research, quantitative approach have been used to collect the data, then the data will be analyse by using the SPSS software.

#### 3.1 Research Design

Quantitative approach was used in this study to collect the data. The self-constructed questionnaire was help to collect the date. The study focused on the most dominant factors that influencing consumer to use e-hailing service in Malacca, Malaysia. The respondent were selected randomly from the sample in the population of area Malacca. Then, the result were analysed by using the SPSS software for reliability analysis, descriptive analysis, normality test and correlation to reach the objectives of the research. The purpose of reliability test are to test the internal consistency of the Cronbach's Alpha and for descriptive analysis, the purpose are to distribution of the data and identify association among variables. Meanwhile, the purpose of normality test is used to determine whether the data set was well-model and to compute how likely for random variables the data be normally distributed and for correlation analysis is used to assess the relationship between dependant variable and several independent variable. The target respondents in the study were consumer that age 15 and above and have ever used the e-hailing service in Malaysia. The population of consumer age 15 and above are 727300. The survey data were collected by using simple random sampling technique. Based on Krejcie and Morgan (1970) table, there was approximately 384 respondents as a sample size for this research. the questionnaires has seven section which are Part A is about demographic information, Part B is mobile payment, Part C is price, Part D is perceived convenience, Part E is perceived ease of use, Part F is perceived usefulness and Part G is about e-hailing services. Part B to G each consist of five question. The questionnaire is using five point Likert-scale from 1 is strongly disagree to 5 which is strongly agree.

#### 3.2 Data Collection

Data collection is a necessary process and there are two types of data which is primary data and secondary data. Primary course implies that the data gathered by the researcher is new and has never been seen before. The data are usually collected by the researcher and it usually involves gathering new data which such as questionnaires, interview and focus group. While secondary source shows that the data collected by the researcher is already obtained by others researcher. Secondary data are usually collected by others researcher and it usually involves gathering existing data produced, such as newspaper, internet, journal, articles, book and reports (Parveen & Showkat, 2017).

In this research, the method that have been used are descriptive research and quantitative approach. The data is collected via self-constructed questionnaire. Quantitative research is being used because it is believe to be more accurate and fast. Quantitative data is more reliable compared to qualitative data because it is a primary source of data. In this research, a simple random method have been apply to all Malaysian that have use the service of e-hailing such as Grab car service in Malaysia

The target respondent of this research are Malaysian that age 15 and above and have been use the service of e-hailing in Malacca, Malaysia at least once. The self-construct set of questionnaire will be distributed via online Google Form to the respondent.

**Table 1 : Demographic profiles of respondents**

Demographic	Details	Frequency	Percentage
Gender	Male	59	39.3
	Female	91	30.7
Age	15 – 29 years old	120	80
	30 – 39 years old	21	14
	40 – 49 years old	5	3.3
	Above 50	4	2.7
Races	Malay	29	19.3
	Chinese	96	64
	Indian	25	16.7
Education level	SPM / STPM	9	6
	Certificate or Diploma	19	12.7
	First Degree / Professional Qualification	116	77.3
	Postgraduate Degree (e.g * Master or Doctorate )	3	2
	Others	3	2
	Frequency of e-hailing used in a month	None	8
	Rarely	45	30
	Sometimes	50	33.3
	Often	36	24
	Almost everyday	11	7.3

### 3.3 Data Analysis

There are 4 types of analysis used in this research which are descriptive analysis, reliability analysis, normality test and correlation analysis. The agreeableness level of descriptive analysis is according to mean interpretation with the mean values between 1.00 to 2.33 represent weak, between 2.34 to 3.67 is moderate and between 3.68 to 5.00 represent high. The principle of reliability analysis is that a scale should consistently represent the construct being measured. Cronbach's Alpha or reliability coefficients of 1.00 imply complete reliability, but values of 0.00 or less suggest that the questionnaires are not reliable, and the range of 0.80 to 0.90 is commonly used in most studies (University of Virginia Library, 2016). Normality analysis is used to examine whether the data set was well-modelled and to calculate the likelihood of the data being normally distributed for random variables. The Kolmogorov-Smirnov Test and the Shapiro-Wilk Test are two well-known tests for normality. If the sample size of the study was less than 50, Shapiro Wilk was used. However, if the sample size of the study was greater than 50, Kolmogorov-Smirnov was used in.

## 4. Results and Discussion

The Cronbach's alpha of mobile payment is 0.788, perceived convenience is 0.745, perceived ease of use is 0.818 and perceived usefulness is 0.838 where the reliability level of the factors is good. While the Cronbach's alpha for price is 0.692 and e-hailing services is 0.602 where the reliability level of both factors is acceptable. The result shown that reliability level of the questionnaire is good as shown in Table 2. The research instrument that being used in reliable which the value is sufficient as according to University of Virginia Library, 2016 that the Cronbach's Alpha value must more than 0.50.

**Table 2 : Reliability analysis**

	Cronbach's Alpha	N-item in scale
Independent Variables		
Mobile Payment	0.788	5
Price	0.692	5
Perceived Convenience	0.745	5
Perceived Ease of Use	0.818	5
Perceived Usefulness	0.838	5
Dependent Variables		
E-hailing services	0.602	5

Table 3 shows an overall result for descriptive analysis. For mobile payment descriptive analysis, e-hailing mobile payment is convenient is the highest mean in the mobile payment factors which is 4.37 while the second highest mean are the fee is directly charged to my e-hailing account once I arrived my destination which is 4.28 then the third highest mean are consumer does not have to prepared small changes to pay for my rides which is 4.25. The next come with the mean in 4.12 which the respondents agree that e-hailing mobile payment is hassle free. The lowest mean is 3.57 which is mobile payment is safer than others payment method. Thus, mobile payment still have a high central tendency level of range. Mobile payment have been a trend for cashless payment, due to covid-19 mobile payment have been widely accept by most of the retail or shops. The main reason of the acceptance of the mobile payment is because it is convenient and hassle free. Next is the descriptive analysis for price. The highest mean for price are the price of the ride have been shown in the apps before consumer agree to book the driver give consumer the feeling of secure which is 4.31 while the second highest mean is e-hailing offered discount when pay with mobile payment which is at 4.21 and the third highest mean is e-hailing offered cashback point redemption attract consumer which is 4.12. The next come with the mean in 3.83 which the respondent agree the most with the fee of the rides depends on the distance travel. The lowest mean is 3.29 which is e-hailing is relatively cheaper than others public transport. Overall, the total average mean for price is 3.95 which is still high central tendency level of range. Price is the first concern consumer will decide when it comes to e-hailing. Consumer always will find the most benefit way to reach their destination.

The highest mean in perceived convenience are e-hailing can use to delivery item which have the mean at 4.37 while the second highest mean is 4.29 where respondent agree that e-hailing pick-up and drop-off point is convenience. Next, e-hailing are much more convenience compared to others public transport get the third highest mean which is 4.27 meanwhile consumer can book their driver anywhere anytime get the fourth highest mean at 4.02. The lowest mean is 3.65 which is e-hailing allow early booking. Overall, the total average mean for perceived convenience is 4.12 which is still at high central tendency level of range. Consumer in Malacca use the service of e-hailing due to convenient as e-hailing can pick-up and drop-off at anywhere anytime and it does not require to wait at certain places such as bus stop of even LRT station. Meanwhile for perceived ease of use has the highest cumulative average mean among the factors. The greatest mean for perceived ease of use is 4.38, which indicates that e-hailing uses language that is easy to understand, while the second highest mean for perceived ease of use is 4.33, which indicates that e-hailing application is user friendly. Next, e-hailing increase the effectiveness and effectiveness of my travel, with a mean of 4.24, and e-hailing is more flexible in route operations, with a mean of 4.11. The lowest mean for perceived ease of use is 3.87, indicating that consumers can contact their customer hotline at any time if they have a problem. Most of the respondent in Malacca agreed that e-hailing is easy to use and it can increase the efficiency and effectiveness of their travel.



The last factors are perceived usefulness which have the total average of mean score with 4.10. The highest mean for perceived usefulness are travel by riding e-hailing save time which is 4.24. The second highest mean is e-hailing have a shorter waiting time which is 4.17 while the GPS embedded application is useful are the third highest mean for factors of perceived usefulness which is 4.12. Next, the pin point location is very useful to unfamiliar places have the mean of 4.03. The lowest mean is 3.95 which is e-hailing allow consumer to choose which type of car we want in the factors of perceived usefulness. The respondent agreed that e-hailing is very usefulness as one of the choice for transport that travel from one place to another. Due to the short waiting time, consumer prefer to use the service of e-hailing because it save time and it allows them to reach their destination punctually. For the dependent variable which are the e-hailing service showed that the highest mean for e-hailing services are I choose e-hailing because it offer comfortable temperature and seats with the mean at 4.22. Moreover, overall consumer are satisfied with the service of e-hailing has the mean at 4.12 while the third highest mean is 4.03 were respondent agree that e-hailing offers good and unique customer services. The mean for I intend to use e-hailing service in the future as a mode of transportation have a mean at 3.83 and the mean for I will happily recommend e-hailing services to others family and friends have a mean at 3.80 which is the lowest.

Respondent in Malacca agree that e-hailing indeed have a special customer service which they offer comfortable seat and temperature which makes respondent in Malacca intend to reuse e-hailing as one of their mode of transportation. E-hailing are still often use by respondent in Malacca. This is because in Malacca have its limit in choosing others option of public transport as compared to others state.

**Table 3: Descriptive analysis**

No.	Items	Mean	Level
<b>Mobile Payment</b>			
1.	E-hailing mobile payment is convenient	4.37	High
2.	E-hailing mobile payment is hassle free	4.12	High
3.	I does not have to prepared small changes to pay for my rides	4.25	High
4.	The fee is directly charged to my e-hailing account once I arrived my destination	4.28	High
5.	Mobile payment is safer than others payment method	3.57	Moderate
Average Score		4.12	High
<b>Price</b>			
1.	E-hailing is relatively cheaper than others public transport	3.29	Moderate
2.	E-hailing offered cashback and point redemption attract consumer	4.12	High
3.	E-hailing offered discount when pay with mobile payment example : GrabPay	4.21	High
4.	The price of the ride have been shown in the apps before I agree to book the driver give the feeling of secure	4.31	High
5.	The fee of the rides depends on the distance travel	3.83	High
Average Score		3.95	High
<b>Perceived Convenience</b>			
1.	E-hailing are much more convenience compared to others public transport	4.27	High
2.	The pick-up and drop-off point is convenient	4.29	High
3.	E-hailing allow early booking	3.65	Moderate
4.	E-hailing also can use to delivery items	4.37	High

5.	Consumer can book their driver anywhere anytime	4.02	High
	Average Score	4.12	High
	Perceived Ease of use		
1.	E-hailing application is user friendly	4.33	High
2.	E-hailing increase the efficiency and effectiveness of my travel	4.24	High
3.	E-hailing uses language that is easy to understand	4.38	High
4.	E-hailing is flexible in route operations	4.11	High
5.	Consumer can always contact their customer hotline if there is any problem	3.87	High
	Average Score	4.19	High
	Perceived Usefulness		
1.	E-hailing have a shorter waiting time	4.17	High
2.	Travel by riding e-hailing save time	4.24	High
3.	The GPS embedded application is useful	4.12	High
4.	E-hailing allow consumer to choose which type of car we want	3.95	High
5.	The pin point location is very useful to unfamiliar places	4.03	High
	Average Score	4.10	High
	E-hailing Service		
1.	I choose e-hailing because it offers good and unique customer services	4.03	High
2.	I choose e-hailing because it offer comfortable temperature and seats	4.22	High
3.	I intend to use e-hailing service in the future as a mode of transportation	3.83	High
4.	I will happily recommend e-hailing services to others family and friends	3.80	High
5.	Overall I am satisfied with the service of e-hailing	4.12	High
	Average Score	4.00	High

The significant level of both independent variables and dependent variable by Kolmogorov-Smirnov are  $p < 0.002$ , thus the data is not normally distributed. Since the data is not normally distributed, non-parametric test will be used. The research will proceed with parametric analysis, which is the Spearman correlation analysis, as a result of the findings.

**Table 4 : Correlation analysis**

Independent Variables	E-hailing services
Mobile Payment	0.382**
Price	0.298**
Perceived Convenience	0.474**
Perceived Ease of Use	0.313**
Perceived Usefulness	0.386**

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 4 shows a result of Spearman's correlation coefficient,  $r$  is 0.382 which indicating a weak relationship between mobile payment and e-hailing service. A significant positive relationship between mobile payment and e-hailing service is not supported by the correlation analysis. As a result,  $H_1$  is not supported. Next, the result of Spearman's correlation coefficient,  $r$  is 0.298 which indicating a weak relationship between price and e-hailing services. As a result, the correlation analysis shows that there is no significant positive relationship between price and e-hailing service.  $H_2$  is not supported. Meanwhile, the result of Spearman's correlation coefficient,  $r$  is 0.474 which indicating a moderate relationship between perceived convenience and e-hailing service. According to the correlation analysis, perceived convenience and e-hailing service have a significant positive relationship. Therefore,  $H_3$  is supported. Furthermore, the fourth result of Spearman's correlation coefficient,  $r$  is 0.313 which indicating a weak relationship between perceived ease of use and e-hailing service. A significant positive relationship between perceived ease of use and e-hailing service was not found in the correlation analysis. Therefore,  $H_4$  is not supported. Lastly, the result of fifth Spearman's correlation coefficient,  $r$  is 0.386 indicating that perceived usefulness and e-hailing service have a poor relationship. As a result, the correlation analysis shows that perceived usefulness and e-hailing service have no significant positive relationship.  $H_5$  is not support.

## 5. Conclusion

The overall result was the image of the factors that influence consumer satisfaction towards e-hailing services and the relationship between customer satisfaction and e-hailing services in Malacca, Malaysia. Therefore, the most dominant factors that influence consumer satisfaction towards e-hailing are perceived ease of use which was the highest mean among the others independent variables. Most the consumer in Malacca agree that e-hailing application is user friendly and it increases their efficiency and effectiveness of their travel. Besides that, e-hailing also uses the language that is easy to understand which it makes consumer in Malacca prefer to use e-hailing because it can be any language that consumer think is easy for them.

In the correlation analysis, the result of Spearman's in correlation coefficient, perceived convenience has the highest coefficient,  $r$  0.474 which was a moderate relationship between consumer satisfaction and e-hailing services in Malacca, Malaysia. E-hailing services is consider to be the most convenience transportation in Malacca as compared to public buses or even traditional taxis. This is because the punctuality and the standards charges which depends on distance and the comfortableness of the services that provided by the e-hailing drivers. Recently e-hailing have been on the highest demand because of the environment needs in convenience public transport in Malacca. This have also created many job opportunity to people who lives in Malacca.

There are some challenges and limitation to complete this research. The limitation are the lack of time consideration has limited the number of respondent. The data collection period for this research is only about three months. The second limitation are with the current situation where only Google Form is the only option to collect data. Lastly the limited resources to study on the topic in e-hailing in Malacca. There are also some recommendation for e-hailing services and future researcher. The recommendation for e-hailing company are fixed a rate of e-hailing charges especially during peak hours and recommendation for future research are focused the relationship between consumer satisfaction with loyal and trusting.

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## References

- Abubakar GB. Islamisation And Democratic Transition In The Post- Revolution Egypt. *International Journal of Social Sciences and Economic Review*. 2019;1(1):29-34. <https://doi.org/10.36923/ijsser.v1i1.28>
- Ahmad, I., & Ahmad, S. (2019). The Mediation Effect of Strategic Planning on The Relationship Between Business Skills and Firm's Performance: Evidence from Medium Enterprises in Punjab, Pakistan. *Opcion*, 35(24), 746-778.
- Anggi, G., Dionisius, W.D., Ivan, O., Jeanifer, G., & Sfenrianto, S. (2019). FACTORS AFFECTING THE ACTUAL USE of ride-hailing services (Gojek/Grab) in Indonesia (Jabodetabek-Region). *International Quality Conference*, 335-341
- Bismo, A., Sarjono, H., & Ferian, A. (2018). The Effect of Service Quality and Customer Satisfaction on Customer Loyalty: A Study of Grabcar Services in Jakarta. *Pertanika Journal of Social Sciences & Humanities*, 26, 33-47.
- Claire Selltitz and others, (1962), *Research Methods in Social Sciences*, New York: Holt, Rinehart and Winston: Published for the Society for the Psychological Study of Social Issues
- Elias, N. F., Jenal, R., Mohamed, H., Hanawi, S. A., Amin, H. M., Yeganegi, R., & Idros, N. A. N. B. M. (2021). e-Service Innovation Through Malaysian Consumer Perspectives: Case Studies of e-Hailing and e-Hypermarket. In *Business Innovation with New ICT in the Asia-Pacific: Case Studies* (pp. 305-323). Springer, Singapore.
- Giang, P. T., Trang, P. T., & Yen, V. T. (2017). An examination of factors influencing the intention to adopt ride-sharing applications: a case study in Vietnam. *Imperial Journal of Interdisciplinary Research*, 3(10), 618-623.
- Goh, S. (2021). Grab sure its drivers are 'clean.' 1–5.
- Grab. (2020). Despite these uncertain times, we're still here to serve you. *Grab*, 1–8.
- Grahn, R., Harper, C. D., Hendrickson, C., Qian, Z., & Matthews, H. S. (2020). Socioeconomic and usage characteristics of transportation network company (TNC) riders. *Transportation*, 47(6), 3047-3067.
- Hampshire, R. C., Simek, C., Fabusuyi, T., Di, X., & Chen, X. (2017). Measuring the impact of an unanticipated suspension of ride-sourcing in Austin, Texas. *SSRN Electron. J.*
- Hio, L. (2017). Ride-hailing app Grab launches e-payment and fund transfer system. *The Straits Times*. <https://www.straitstimes.com/tech/ride-hailing-app-grab-launches-e-payment-and-fund-transfer-system>
- Idros, N. A. N. M., Mohamed, H., & Jenal, R. (2019). The use of expert review in component development for customer satisfaction towards E-hailing. *Indonesian Journal of Electrical Engineering and Computer Science*, 17(1), 347–356. <https://doi.org/10.11591/ijeecs.v17.i1.pp347-356>
- Jais, Ahmad Sahir, A. M. (2020). E-Hailing Services in Malaysia : Current Practices. *Journal of the Malaysian Institute of Planners*, 18(3), 128–141.
- Joia, L. A., & Altieri, D. (2018). Antecedents of continued use intention of e-hailing apps from the passengers' perspective. *Journal of High Technology Management Research*, 29(2), 204–215. <https://doi.org/10.1016/j.hitech.2018.09.006>
- Kaur, A. (2020). User behavior intention towards e-hailing applications. III(December), 35–53.
- Koenig-Lewis, N., Marquet, M., Palmer, A. & Zhao, A.L. (2015) Enjoyment and social influence: Predicting mobile payment adoption. *Service Industries Journal* 35(10): 537–554.
- Lee, Z. W. Y., Chan, T. K. H., Balaji, M. S., & Chong, A. Y. L. (2018), Why people participate in the sharing economy: an empirical investigation of Uber, *Internet Research*, 28(3), 829-850
- Liu, Z. Y. (2015). An Analysis of Technology Acceptance Model-Exploring user acceptance and intension of taxi-hailing app in Shanghai.
- Mai, N. N., Thào, N. T. M., & Thuy, V. H. N. (2020). Impact of Factors on the Intention To Use Ride-Hailing Technology Applications During the Covid-19 Epidemic in Vietnam. *International Review of Management and Marketing*, 11(1), 1–7. <https://doi.org/10.32479/irmm.10839>
- Mesly, O. (2015). *Creating models in psychological research*. Etats-Unis: Springer press.
- Mohamad, S.R., Zainuddin, S.A., Nik Hashim, N.A.A., Abdullah, T., Anuar, N.I.M., Deraman, S.N.S., Azmi, N.F., Mohd Razali, N.A., & Zain, E.N.M. (2020). Validating The Measuring Instrument For The Determinants Of Social Commerce Shopping Intention Among Teenagers. *European Journal of Molecular & Clinical Medicine*, 7(6), 1877- 1881.

- NACTO. (2016). Ride-Hailing Services: Opportunities and Challenges for Cities. 1–11. <https://nacto.org/wp-content/uploads/2016/06/Policy-Ride-Hailing-Services-2016.06.pdf>
- Omar, R.N.R., Hashim, N.A.A.N., Zain, E.N.M., Ramlee, S.I.F., Halim, A.F.A., Rohzi, A.F.M., Azlin, M.H.A.N., Mat, W.M.N. (2020). Factors that Influence Online Behaviour in Purchasing Hotel Room via Website among Tourists. *European Journal of Molecular & Clinical Medicine*, 7(7), 219-229
- Parveen, H., & Showkat, N. (2017). Data Collection. *Quadrant-I (e-Text)*. August.
- Phuong NN, Dai Trang TT. (2018) Repurchase intention: The effect of service quality, system quality, information quality, and customer satisfaction as mediating role: a PLS approach of m-commerce ride hailing service in Vietnam. *Mark*
- Qasim, H. & Abu-Shanab, E. (2015). Drivers of mobile payment acceptance: The impact of network externalities. *Information Systems Frontiers* 18(5): 1021–1034.
- Rayle, L., Dai, D., Chan, N., Cervero, R. & Shaheen, S. (2016). Just a better taxi? A survey-based comparison of taxis, transit, and ridesourcing services in San Francisco. *Transport Policy*, 45, 168-178.
- Rayle, L., Shaheen, S., Chan, N., Dai, D., & Cervero, R. (2014). App-based, on-demand ride services: Comparing taxi and ridesourcing trips and user characteristics in san francisco university of california transportation center (uctc). University of California, Berkeley, United States.
- Rovai, A. P., Baker, J. D., & Ponton, M. K. (2014). *Social Science Research Design and Statistics*. Chesapeake, VA: Watertree Press LLC.
- Sakaran, S. S., Noor, H. M., & Eboy, O. V. (2018). Socioeconomic factors that affect usage of Grabcar services in Kota Kinabalu city, Sabah. *Malaysian Journal of Business and Economics (MJBE)*, 65-65.
- Samengon H, Hashim NAAN, Nawi NMM, Ahmad G, Othman NA, Ridzuan NA, Simpong DB, Awang Z, Yusoff AM, Aziz RC, Ramlee SIF. (2020) Factors Affecting Turnover Intention of Three-Star Hotel Industry in Malaysia. *TEST Engineering and Management*. 2020;82:11056-11064
- Sonneberg, M.-O., Werth, O., Leyerer, M., Wille, W., Jarlik, M. & Breitner, M. H. (2019). An Empirical Study of Customers' Behavioral Intention to Use Ridepooling Services -An Extension of the Technology Acceptance Model. 14th International Conference on Wirtschaftsinformatik, Siegen, Germany, 24-27 February 2019.
- Teo, B. C., Mustaffa, M. A., & Rozi, A. I. M. (2018). To Grab or Not to Grab?: Passenger Ride Intention towards E-Hailing Services. *Malaysian Journal of Consumer and Family Economics*, 21, 153-159.
- University of Virginia Library (2016). Using and Interpreting Cronbach's Alpha | University of Virginia Library Research Data Services + Sciences. *Research Data Services*. <https://data.library.virginia.edu/using-and-interpreting-cronbachs-alpha/>
- Wan, W. N. A. A. B., Mohamad, A. F. M. F., Shahib, N. S., Azmi, A., Kamal, S. B. M., & Abdullah, D. A. (2016). Framework of customer's intention to use Uber service in tourism destination. *International Academic Research Journal of Business and Technology*, 2(2), 102-106.
- Wang, X. (2019). Research on development of China E-hailing industry. *SHS Web of Conferences*, 61, 01032. <https://doi.org/10.1051/shsconf/20196101032>
- Weng, G. S., Zailani, S., Iranmanesh, M. & Hyun, S. S. (2017). Mobile taxi booking application service's continuance usage intention by users. *Transportation Research Part D Transport and Environment*, 57, 207-216.
- Zafar, M. K. (2018). Factors Influencing Adoption of Uber in Bangladesh and. December.
- Zhang, K. Z., Yan, R., & Zhao, S. J. (2016, June). Understanding Participation in Sharing Economy: the Roles of Convenience, Risk, and regulatory FOC I. In *PACIS* (p. 106)
- Zhu, D. H., Lan, L. Y., & Chang, Y. P. (2017). Understanding the Intention to Continue Use of a Mobile Payment Provider: An Examination of Alipay Wallet in China. *International Journal of Business and Information; Sansia*, 12(4), 369-390.