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A Review and Conceptual Development of the Factors Influencing Consumer Intention towards E-Hailing Service in Malaysia

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On-demand ride hailing service is fast becoming Malaysian commuters preferred public transportation due to its unique features, which is ubiquitous. In spite of that, there are only a few academic studies conducted on consumer behaviour towards e-hailing service, especially in Malaysia. This conceptual paper is envisioned to establish the antecedents of consumer's intention to use e-hailing from Malaysian perspective. A total of eleven studies related to behavioural intention of adopting on-demand ride service were reviewed and analysed. A frequency analysis was used to determine the independent variables and the moderator for the development of conceptual framework. The finding indicated that the following perceived usefulness, perceived ease of use, compatibility, relative advantage and safety are significantly influencing user satisfaction towards the ride-hailing. In addition to that, subjective norms have a direct impact on the behavioural intention to use e-hailing service supporting the Theory of Reasoned Action (TRA) and Theory of Planned Behaviour (TPB).

Key words: *E-hailing, Ride-hailing, Consumer Intention, Malaysia.*

Introduction

The rapid advancement of information system and technology has seen the revolution of e-commerce. In 2015, governments and global businesses had invested around €3.4 trillion on

software, hardware and telecommunication equipment. The global investment is expected to grow about €3.55 trillion by 2020 (Laudon & Laudon, 2018). E-commerce, or electronic commerce enables the organisations to take advantage of e-commerce exclusive feature, which is the ability to operate 24 hours 7 days a week. This business trends saw on-demand firms like Amazon (e-marketplace), Airbnb (e-rental service) and Grab (e-hailing service) build their own platforms to provide digital marketplace for trading goods and services between customers and suppliers. Technology that supports e-commerce has evolved from desktops and personal computers to smartphones, laptops and tablets with wireless internet connection. E-commerce has adopted a new business direction in which they become more social, mobile and local. Nowadays, we are witnessing people walk with their smartphones in hands. Mobile device users are expected to reach about 4.68 billion in 2019 (Statista, 2019). This is due to mobile devices becoming more affordable, effective and easy to use (Nassoura, 2012). This phenomenon has changed the landscape of e-commerce today that leads to the next generation of e-commerce, called m-commerce.

Mobile commerce or m-commerce refers to e-commerce activities via mobile devices, such as smartphones or personal digital assistants (Mennecke & Strader, 2003). The digital age has seen the widespread of mobile commerce, mobile social networking and digital content parallel with the invention of smartphones and tablets, supported with broadband network (Phonthanukitithaworn et al., 2016). Mobility has become the new way of innovation (Hou et al., 2016). It is the fastest-growing business in e-commerce, expanding at the rate of 50% or more annually, and is estimated to grow to $300 billion by 2020 (eMarketer, 2016c). Users are able to carry out m-commerce activities using smartphones, laptops or tablets as long as there is access to the internet wireless. The presence of Wireless Application Protocol (WAP), a web-ready micro-browser for mobile devices such as smartphones and tablets has enabled users to access information using wireless network.

One of the rapid business growths in the digital market today is e-hailing, or electronic-hailing service. Sometimes called as ride-hailing, it is a process to booking a car and a driver through e-hailing service provider's platform using a smartphone application. It has become one of the preferred public transportation modes due to its 24-hours availability, door-to-door service, safety features, and choices of vehicles, for example taxis and private cars. In 2017, McKinsey reported that the e-hailing market revenue has over $53 billion in 2016. Overall, 70% out of 16 billion of global e-hailing trips were completed in Asia (ABI Research, 2018). Asia is the largest e-hailing industry in the world with more than 90% of market share. In Southeast Asia market, Grab is leading the e-hailing industry with business operations in 8 countries, including Malaysia, Singapore, Indonesia, Thailand, The Philippines, Myanmar, Cambodia and Vietnam.

Ride hailing service in Malaysia is regulated under the Ministry of Transport Malaysia (MoT). All service providers must register with the Land Transport Commission (SPAD), Companies Commission of Malaysia (SSM) or the Cooperative Commission of Malaysia (SKM) to apply for e-hailing licensing. According to Transport Minister, Anthony Loke, there are approximately 200,000 registered e-hailing drivers in Malaysia (The Sun, 2019). Apart from that, all e-hailing drivers must adhere to further rules, including to obtain public service vehicle (PSV) license, comply and pass medical and criminal background checks, e-hailing vehicles to undergo annual inspection at Computerised Vehicle Inspection Centres (PUSPAKOM), drivers to contribute to Social Security Organization (SOCSO), to purchase e-hailing add-on insurance, and to have safety equipment including fire extinguisher ready in their cars (Chu, 2019).

In Malaysia, conventional public transportation, such as busses, taxis, light railway train (LRT), mass rapid transit (MRT), express rail link (ERL), train, and monorail requires passengers to wait in designated area, such as bus stop or train station to get on the transport. The emergence of e-hailing service in Malaysia has added a different dimension in traveling from one place to another, with map embedded into a smartphone permitting pick-up point and drop-off point from everywhere. History of e-hailing in Malaysia is dated back in 2012 when Grab (then MyTeksi) made its debut in this country. Since then, there are other registered ride-hailing service providers available in Malaysian market, such as EzCab, MULA and MyCar to provide direct competition to Grab. These companies provide a platform for private drivers and taxi drivers to accept booking from customers through mobile applications, which can be downloaded from iOS or android smartphones. The e-hailing mobile application allows the users to reserve a ride by tapping from their mobile devices any time and in any place.

Problem Statement

It is becoming a common sight to see the e-hailing private cars and taxis with e-hailing stickers in the major cities like California in US, Beijing in China, and Kuala Lumpur in Malaysia, just to name few. According to the Nielsen Global Survey of Automotive Demand in 2013, Malaysia was the third highest in term of car ownership globally with 93% (504 sample size). It was also reported that 54% of households have more than one car in Malaysia (Nielsen, 2014). The growing number of vehicles contributing to the traffic congestions and increasing of unwanted emissions of the vehicles. Individuals with strong pro-environmental (Alemi et al., 2018) are motivated to adopt e-hailing as an alternative mode of transportation. User are benefiting from the usage of e-hailing service due to cheaper cost of transportation and shorter waiting time due to insufficient of public transportation to supply the large demand of commuters (Santos and Xavier, 2015).

With that, there has been a growing interest in the development of e-hailing with many studies related to the topic being conducted using qualitative and quantitative methods. From social science point of view, there are two (2) most common behavioural studies that were conducted in the past: (1) investigation on factors affecting user's intention to use and re-use e-hailing service, and (2) studies on user adoption of e-hailing service and its influencing factors. Nonetheless, our understanding regarding the factors that effecting e-hailing users' intention to adopt on-demand ride services and the implications towards the users behaviour and their choice of travelling is somewhat limited especially in Malaysia scenario.

Previous studies have examined over 20 antecedents to understand factors influencing customer's intention to use e-hailing apps. The antecedents of perceived ease of use, compatibility, relative advantage and trust of the e-hailing apps are contributing to user satisfaction with the e-hailing experience, with subjective norms have a major effect on the intention to use and re-use of the service (Joia and Altieri, 2018, 2017). E-hailing mobile app features must be user friendly and easy to use to fulfil users' expectations (Weng et al., 2017). In a different study, relative attractiveness, reassurance, relative attractiveness, and monetary value are all have a positive impact towards re-use intention of e-hailing app (Kim et al., 2018). Teo et al., (2018) highlighted that perceived price, safety, convenience, accessibility and content marketing are the basic factors in predicting passenger ride intention. E-hailing users are persuaded by the service quality and the brand image of the service provider (Thoo et al, 2018).

There is limited study that examines antecedents effecting user intention to use on-demand ride service using the most common and used antecedents in the academic studies. Therefore, this conceptual paper is initiated to combine the most used constructs and developed hypotheses and conceptual framework for future study of factors influencing intention to use e-hailing service in Malaysia.

Research Question and Objective

The problem statement highlighted that there is limited study to investigate the most used antecedents and its influence towards intention to use of e-hailing service. For this conceptual paper, the research question is: What are the most used antecedents that influencing consumer intention to use e-hailing service in Malaysia?

The objective of this conceptual paper is to identify the most studied factors that influencing consumer intention to use on-demand ride service in Malaysia, to develop hypotheses based on the identified antecedents, and to develop conceptual framework for the future study of consumer intention to use e-hailing service in Malaysia.

Research Significance

Literature review reveals that there are more than 20 different antecedents were used to study its influence towards intention to use e-hailing service. Nevertheless, there is no study that combining the most frequent or used constructs to investigate its positive relationship towards behavioural intention. Thus, this conceptual paper is initiated to test all these constructs against user's satisfaction and intention. The outcomes of the assessment will provide a platform to proceed with an academic research and investigate its potential contribution in gaining more generalised results of the influencing factors for intention to use the ride-hailing service. The significance of this conceptual paper is valuable for the e-hailing management, marketing team and mobile apps developer to gain insight knowledge of the significant constructs that effecting consumer's behaving in such way, for example having an intention to adopt e-hailing. They may plan a better business strategy, improve marketing plan, continue to develop and improve user-friendly mobile apps with added-value features, such as e-wallet automatic reloads, prepaid top-up, buying movie tickets, and pay bills in their effort to gain market share in this industry. This will help the service providers to attract more e-hailing users with their refreshing business model and gain competitive advantage against their competitors.

Literature Review

Literature review is a process to review and recording studies and researches with citations (Sekaran, 2006). Deeney and Tewksbury (2012) further explained that a literature review is an extensive overview on a specific topic prior to conducting a research. The objective is to understand about a topic, to identify research gap, and define a research statement to explain the need for a new study or investigation.

E-hailing Service

The public transportation industry is experiencing digital transformation with the introduction of application-based e-hailing service. The abundance of smartphones has catalysed swift development of mobile app-based e-hailing services, such as Grab, Uber, Lyft and Didi Chuxing. Customers are able to request ride service via mobile application to enable them to be connected to the nearest available affiliated drivers via the e-hailing service provider's online platform. On-demand e-hailing services have drastically shorten the waiting time and connect the drivers and the users with low operational costs (Zha et al., 2016; Anderson, 2014).

Many businesses are adopting location-based service as a value-added service (Ruangkanjanases and Techapoolphol, 2018). Location-based service is an information

system that utilizes the mobile devices location through a mobile network (Virrantaus et al., 2001). There are several techniques to retrieve location information (Solanki and Hu, 2005); with the most common one is global position system (GPS). Basically, the location-based service enables users to retrieve information such as locating individual or something, navigating to find the way to reach to a destination, searching for people or location, identifying place or location and checking for events (Reichenbacher, 2004). With the integration of location-based system into an e-hailing mobile apps, information such as locating the availability of e-hailing drivers, waiting time for e-hailing driver to pick-up, and estimated travelling time from one place to another are made available to the e-hailing apps users.

Today, transportation services such as car-sharing, ride-sharing, and on-demand ride sourcing are thriving worldwide (Henao and Marshall, 2017). This is due to low cost of transportation, lower fuel consumptions, reduce carbon emissions, and beneficial for mitigate traffic congestions (Ferguson, 1997; Kelley, 2007; Morency, 2007; Caulfield, 2009; Chan and Shaheen, 2012). Consumers are concern about reliability, privacy threats and concerns for personal safety (Axsen and Sovacool, 2019). The growing number of vehicles on the road contributing to the traffic congestions and the increasing number of unwanted emissions of the vehicles has seen some individuals switching to ride-sharing (Dhawan and Yadav, 2018). Individuals with strong pro-environmental (Alemi et al., 2018) are motivated to adopt e-hailing as an alternative mode of transportation.

In Malaysia, e-hailing services continue to gain popularity among drivers and commuters. The common issues regarding the public transportation can be linked back to the unreliable time of arrival (Nie, 2017). This problem has affecting public users as they are unable to plan their journey properly. There are more e-hailing service providers available in Malaysia with mobile app new added-features and competitive price to provide competition and more option to the e-hailing users. The emergence of many e-hailing service providers aiming to provide better proposition has seen traditional taxi drifted away from the competition.

Theory of Reasoned Action (TRA) and Theory of Planned Behaviour (TPB)

Consumer intention is a person's commitment, plan, or decision to carry out an action or achieve a goal (Eagly & Chaiken, 1993). Intention to adopt is also defined as a sign of an individual's readiness to execute a particular behaviour (Ajzen, 1991). Fishbein and Ajzen (1975) have developed the Theory of Reasoned Action (TRA) to explain the relationship between the existing attitude and subjective norms against behavioural intention. This theory emphasised that a person's behaviour is influenced by their personal opinion, values, beliefs and attitude.

In 1991, Ajzen has improved the TRA with the development of Theory of Planned Behaviour (TPB) and added perceived behavioural control as one of the predictive powers. According to the TPB, attitude, subjective norms and perceived behavioural control heavily influence a person intention and behaviour. Both theories are regularly used to study the antecedents of the intention to use information system and technology, as well other fields such as marketing, public relations, healthcare, sustainability etc. Intention to use and re-use e-hailing service was significantly influenced subjective norms (Lim et al., 2018; Joia and Altieri, 2018, 2017; Weng et al., 2017). The same construct also has a positive influence on several studies on mobile adoption (Hsiao et al., 2016; Hew et al., 2015).

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was developed by Davis, Bagozzi and Warshaw (1989) to explain user acceptance of technology. The theory suggested that perceived usefulness and perceived ease of use are the external factors of acceptance behaviour. Both constructs are commonly used as determinants of the user attitude and behavioural intention over the use of information system. This theory is the most common model used to study the acceptance of e-hailing technology (Ruangkanjanases and Techapoolphol, 2018; Dhawan and Yadav, 2018; Joia and Altieri, 2018, 2017; Weng et al., 2017).

However, Joia and Altieri (2017 and 2018) argued that perceived usefulness has a positive impact of user satisfaction but not in the intention to use and re-use of e-hailing apps. Meanwhile, perceived ease of use construct of having positive effect towards user satisfaction is not supported, but it does have significant impact on perceived usefulness. In a different study, the hypothesis of perceived ease of use has a positive impact towards intention to use e-hailing was supported (Lim et al., 2018; Ruangkanjanases and Techapoolphol, 2018; Dhawan and Yadav, 2018; Weng et al., 2017).

Diffusion of Innovation Theory (DoI)

The Diffusion of Innovation Theory (DoI) was developed by Everett M. Rogers in 1962 that explains the process of user's adoption and how innovation communicated to the users over time. Innovation can be explained as new idea, exercise or thing perceived by individuals, organisations or other unit of analysis. Meanwhile, diffusion is defined as a process of communication innovation through multiple channels to their members in the same social structure. Rogers (2003) suggested that relative advantage, compatibility, complexity, trialability and observability are the antecedents of diffusion of major innovation. Some authors implied that DoI played a major role in adoption of technological innovation (Benbasat and Barki, 2007; Chen et al., 2004). For example, the relative advantage construct

has a positive influence in the intention to use e-hailing (Ruangkanjanases and Techapoolphol, 2018, Kim et al., 2018; Joia and Altieri, 2018, 2017).

Research Methodology

A literature review related to e-hailing was conducted to analyse and determine the factors influencing consumer intention to use e-hailing service. All the previous studies were retrieved from online journals, such as ScienceDirect, Emerald, Taylor and Francis Online, and Research Gate. Keywords that were used to find the related articles were e-hailing, ride-hailing, consumer intention, Malaysia and also a combination of these keywords. It was found that there are several e-hailing studies using both qualitative and quantitative methods. The studies covered many geographic locations, such as North America, America Latin, Africa, Asia and Middle East in between 2017 to 2019. Eventually, it was narrowed down to a total of 20 articles that particularly investigated consumer behaviour. All 20 articles were tabulated into a research summary table comprising of author name, title, dependent variable, independent variable, mediator, moderator, findings, research gap and methodology (Appendix 1). This first step is important to identify the most common studied in e-hailing area as it implies the significant of specific behaviour of consumers. A frequency analysis was performed to identify the occurrence number of the dependent variable used in all 20 articles. From the frequency table shown in Appendix 2, it was found that 11 out of 20 studies were investigating consumer behaviour of intention to use on-demand ride service. Three sets of frequency table were further developed, each table for independent variable, mediator and moderator retrieved from the 11 articles to identify the most constructs used for intention to use e-hailing. The letter “A” represents article, therefore “A1” represents Article 1, “A2” represents Article 2 and so on. The letter “F” represents frequency. All of the three tables are presented and discussed under in the next section.

Findings and Conceptual Model Development

The findings of the study are based on the frequency analysis of the variables used in previous studies associated to the e-hailing topic. It identified eleven studies were related to intention to use of e-hailing service and the independent variables, mediators and moderators were organised into three separate tables. Table 1 represents 27 independent variables used in the previous studies of intention to use of e-hailing service.

Table 1: Independent Variables with Frequency Value

Independent Variable	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	F
Subjective norms	X	X						X				3
Perceived usefulness	X	X						X				3
Perceived ease of use	X	X			X			X				4
Complexity	X	X										2
Compatibility	X	X		X								3
Relative advantage	X	X		X	X							4
Trust	X	X										2
Perceived informativeness			X								X	2
Monetary value			X									1
Relative attractiveness			X									1
Reassurance			X									1
Interactivity			X									1
Accessability				X			X					2
Perceived performance risk				X				X				2
Safety				X	X		X			X		4
Trialibility					X							1
Social influence					X							1
E-referral						X						1
E-word of mouth						X						1
Cost							X			X		2
Convenience							X			X		2
Content marketing							X					1
Confirmation								X				1
Service personal values									X			1
ICT										X		1
Service quality											X	1
System quality											X	1

There are six different frequency values, with a minimum frequency value of one and the maximum frequency value of four. The repeat usage of some factors in multiple studies

signifies the importance of the variables toward the consumers' behavioural intention towards e-hailing service. Factors with a frequency value of three and above are established as independent variables for the new model development of conceptual framework. The rest of the factors are excluded as they only have frequency value of one and two.

On the analysis of mediator, there were only four past studies incorporated a mediator in the investigation of intention of use as seen in Table 2. Each of the mediators have a frequency value of one representing its insignificant to be considered in the concept development.

Table 2: Mediator with Frequency Value

Mediator	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**	**A10**	**A11**	**F**
Attitude				X								1
Brand image						X						1
Perceived value									X			1
User satisfaction										X		1

User satisfaction was studied in four different articles implying its significant role in the study of behavioural intention of consumers. It is perceived that the user satisfaction construct is a strong predictor in relation with independent variables on the study of intention to use e-hailing apps. Therefore, this moderator will be integrated into the development of conceptual framework to understand its strength between the independent variables and the dependent variable. Table 3 summarised the frequency table of moderator.

Table 3: Moderator with Frequency Value

Moderator	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**	**A10**	**A11**	**F**
User satisfaction	**X**	**X**						**X**	**X**			**4**
Perceived ease of use				X								1
Perceived usefulness				X								1
Attitude								X				1
Service attribute										X		1

Table 4 summarised all the independent variables with frequency value of three and four together with user satisfaction construct.

Table 4: Most Frequent Independent Variables used in previous studies

Variable	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	F
User satisfaction	X	X						X	X			4
Subjective norms	X	X						X				3
Perceived usefulness	X	X						X				3
Perceived ease of use	X	X			X			X				4
Relative advantage	X	X		X	X							4
Compatibility	X	X		X								3
Safety				X	X		X			X		4

The definition of the independent variables and the moderator are explained along with the hypothesis development for each variable.

Subjective Norms

Subjective norms are the direct antecedent with positive impact towards behavioural intention according to TRA (Fishbein and Ajzen, 1975). Subjective norms can be explained as the perception people have that people who are important to them believe it is expected that they are behaving in a certain way. Hsiao et al., (2016) used subjective norms from TRA and TPB as an antecedent influencing adoption of mobile apps. However, it is not the case in a mobile taxi apps study, when the subjective norms impact on the continuance usage intention was rejected (Weng et al., 2017). In 2018, Joia and Altieri reiterated that subjective norms have a significant impact towards intention to re-use e-hailing apps after a follow up study from their initial research on behavioural intention to use the apps a year before. Therefore, the hypothesis of the construct for this research is described as:

H1: Subjective norms have a positive effect on the intention to use e-hailing service

Perceived Usefulness

Perceived usefulness is defined as the degree to which an individual believes that using the system will improve their performance (Davis and Bagozzi, 1989). It is one of the TAM constructs suggesting it has positive influence towards individual intention to accept information system. Previous studies on intention to use e-hailing ascertained that PU has a positive effect on user satisfaction, which is the antecedent of intention to use of e-hailing service due to easy to use and user-friendly apps (Joia and Altieri, 2018; Weng et al., 2017). However, both studies have contradicted results on the perceived usefulness effect of the continuance intention to use e-hailing. Weng et al. (2017) found that the construct has a positive effect on the continued intention to use taxi apps. Meanwhile, Joia and Altieri (2018) suggested that the perceived usefulness hypothesis has a positive effect on the intention to re-

use e-hailing apps is not supported, the same result found by Hsiao et al. (2016) in their study on social mobile apps. Nevertheless, the research will test the perceived usefulness in relation to user satisfaction and intention to use the ride-hailing apps. Therefore, the hypothesis of the construct for this research is described as:

H2: Perceived usefulness has a positive effect on the intention to use e-hailing service

H3: Perceived usefulness has a positive effect on user satisfaction with e-hailing service

Perceived Ease of Use (PEOU)

Perceived ease of use is defined as the degree which innovations may be experienced prior to the launch of technology or prior to user's adoption to the technology (Rogers, 2003). Ruangkanjanases and Techapoolphol (2018) highlighted that both genders in Thailand are keen to use taxi-hailing service due to the ease of use features of the mobile apps. It is important for the mobile apps developer to enhance their apps features to meet their customer's preference and expectation (Weng et al., 2017). However, this construct does not have any impact towards user satisfaction in a study conducted in Brazil (Joia and Altieri, 2018, 2017). The research will investigate if perceived ease of use is influencing customer's intention to adopt e-hailing in Malaysia. Therefore, the hypothesis of the construct for this research is described as:

H4: Perceived ease of use has a positive effect on user satisfaction with e-hailing service

H5: Perceived ease of use has a positive effect on perceived usefulness of e-hailing service

Compatibility

Compatibility is the degree to which an innovation is observed as consistent with users' previous experiences and potential need of users (Rogers, 2003). On-demand services provide mobile apps as an innovative way of hailing a private car or a taxi by tapping a mobile app. E- hailing and traditional taxi hailing do share similarity of providing a pick-up and drop-off service to passengers. Moore and Benbasat (1991) suggested that the likelihood of users to adopt e-hailing apps is higher with those who experienced the similarity between traditional technologies and the new innovations. Compatibility is one of the important factors in favour of user's intention to adopt the e-hailing service (Joia and Altieri, 2018, 2017). Users are inclined to adopt e-hailing apps due to ease of use and it is compatible with the traditional way of hailing a taxi (Kim et al., 2018). Therefore, the hypothesis of the construct for this research is described as:

H6: Compatibility has a positive effect on user satisfaction with e-hailing service

Relative Advantage

Relative advantage is defined as the degree to which an innovation is seen as better than the ideas it replaces (Rogers, 2003). E-hailing service is readily available via mobile apps with internet. Commuters are able to book their ride with a tap on mobile apps instead of traditional hailing at the road side. The e-hailing service providers have developed mobile apps with standard services, such as information about estimated ride price prior to booking, tracking driver's location and travelling time to reach at customer's location after placing a booking, and estimated travelling time from pick-up point to drop-off location. These features help e- hailing users to plan their journey accordingly. Apart from that, other value-added features, such as e-wallet for cashless payment and points collection that is redeemable for vouchers are some other advantages that may influence consumer's intention to use e-hailing mobile apps. Ruangkanjanases and Techapoolphol (2018) implied that relative advantage is one of the significant antecedents that affect user's intention to adopt taxi-hailing apps in Thailand. Users will recognise the usefulness and are more satisfied with the relative advantage of on-demand ride service (Kim et al., 2018; Joia and Altieri, 2018, 2017). Therefore, the hypothesis of the construct for this research is described as:

H7: Relative advantage has a positive effect on user satisfaction with e-hailing service

Safety

Safety has been one of the major debates in e-hailing industry with the lack of safety parameters on e-hailing apps such as SOS button as well as poor safety policies by the governments. E- hailing service providers are aware that safety is important for the users. Consumer trust in the e- hailing service provider is influenced by safety (Gefen et al, 2003). Recently, Ministry of Transportation Malaysia new regulations issued that every e-hailing driver must undergo a compulsory screening for criminal check. This has enhanced perceived safety level as it is significant factor in user satisfaction (Kim et al., 2018; Ruangkanjanases and Techapoolphol, 2018; Teo et al., 2018; Suhaimi et al., 2018; Ringle et al., 2011). Consumers are more confident to use the e-hailing service with a clear regulations and protection. Therefore, the hypothesis of the construct for this research is described as:

H8: Safety has a positive effect on user satisfaction with e-hailing service

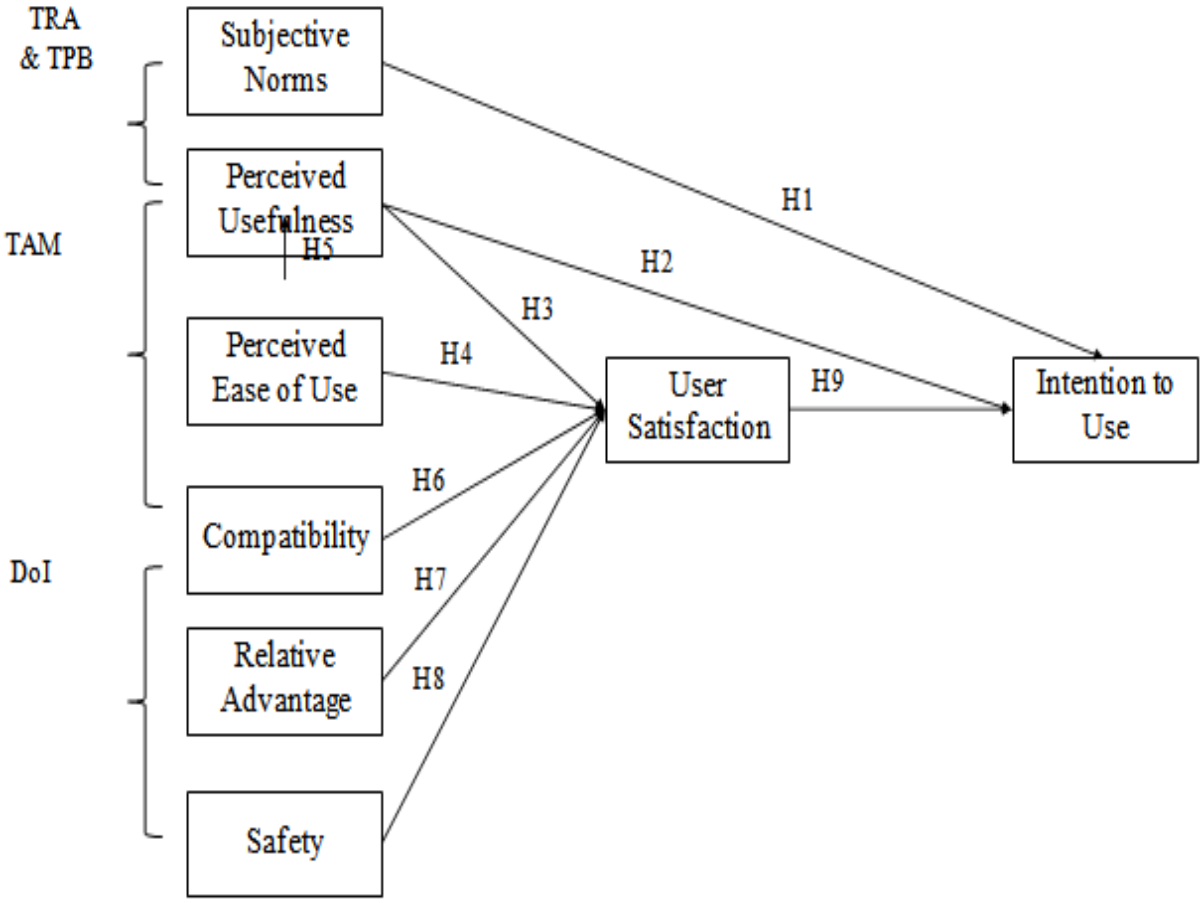
User Satisfaction

Service quality is a key role in order to be successful in a service sector. Positive service values influenced perceived value, while perceived value have a positive impact towards user satisfaction to continue using e-hailing service (Aw et al., 2018). User satisfaction has been used as the construct for studies on adoption and continuance of use of mobile application (Hsiao et al., 2016; Xu et al., 2015). Furthermore, the study was extended to the intention to use e-hailing mobile apps using user satisfaction as the moderator (Aw et al., 2018; Weng et al., 2017; Joia and Altieri, 2018, 2017). Therefore, the hypothesis of the construct for this research is described as:

H9: User satisfaction have a positive effect on the intention to use e-hailing service

Based on the findings, a conceptual framework consisting of seven independent variables and one moderator was developed for a future study on factors influencing consumer's intention to adopt e-hailing service (Figure 1).

Figure 1. Conceptual Framework of Intention to Use E-hailing Service



Conclusion and Future Work

This conceptual paper was instigated to determine the most common factors that were used in previous studies of user intention to adopt e-hailing service and to develop a conceptual framework. A total of eleven studies were identified related to customer behavioural intention. The frequency analysis reveals user satisfaction was commonly tested on its strength in relation with independent variables and dependent variables. Furthermore, there are six most factors used in the past studies including subjective norms, perceived usefulness, perceived ease of use, compatibility, relative advantage and safety.

An empirical study is planned to test this conceptual model in the future. Adopting quantitative method, data collection will be in a form of a cross-sectional questionnaire method with unit of analysis of individuals, in this case, the existing e-hailing users in the major cities throughout Malaysia aiming to achieve generalise results. To date, there are more than 11 million registered e-hailing users in Malaysia. Therefore, the sample size of the study is 384 (Krejcie and Morgan, 1970). A non-probability convenient sampling technique will be beneficial for the future study as it will reduce the amount of time and cost during data collection and any element can be selected from a population. It is useful to find more articles to gain knowledge and consensus on the most significant construct in the behavioural intention to use of e-hailing apps. It will ascertain our knowledge on the consumer's reasoning of adopting and continuance of use of e-hailing service in Malaysia.

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