



**UNIVERSITI PUTRA MALAYSIA**

***FACTORS INFLUENCING MOBILE SHOPPERS' SATISFACTION AND  
REPURCHASE INTENTION IN MOBILE SHOPPING IN MALAYSIA***

**NUR AIN BINTI MOHD PAIZ**

**SPE 2021 9**



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By

**NUR AIN BINTI MOHD PAIZ**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra  
Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of  
Philosophy**

**January 2021**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in  
fulfilment of the requirement for the degree of Doctor of Philosophy

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**January 2021**

**Chair : Mass Hareeza Ali, PhD**  
**Faculty : School of Business and Economics**

The growth of mobile shopping is causing consumers to change their shopping behaviour. It is essential to understand the factors of repurchase intention on the mobile shopping context. However, there are some issues arise such as bad reviews on the quality of mobile website or app service, high risk and cost, and frauds in mobile shopping may affect mobile shoppers' behaviour. Therefore, the aim of this research is to investigate the factors that influence the mobile shoppers' satisfaction and repurchase intention of mobile shopping in Malaysia with the support of Social Cognitive Theory (SCT) and Service Evaluation Model (SE). More specifically, this research examines the relationships between factors namely sacrifice (SAC), service quality (SQ), perceived value (PV), and trust (TR) mediated by mobile shoppers' satisfaction (CS) with repurchase intention (RI) on mobile shopping. A total of 460 questionnaires for this research were distributed at shopping malls located in Kuala Lumpur and Selangor. The data were analysed using SPSS and Structural Equation Modelling in PLS. The research results showed that there are significant relationships between SQ and PV. Meanwhile, SAC is not significant related to PV. SAC, SQ, PV, and TR have significant positive influence on CS. CS has a significant relationship with RI. Besides, CS mediates the relationship between SAC, SQ, PV and TR. The study implies that practitioners should understand and focus on the factors of SAC, SQ, PV and TR which influence CS and RI by mediating effect of CS, to retain the customers and get more customers by encouraging use of mobile shopping. The findings contribute valuable theoretical and managerial implications that can enhance mobile shopping services.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia  
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**FAKTOR-FAKTOR YANG MEMPENGARUHI KEPUASAN DAN NIAT  
MEMBELI SEMULA DALAM MEMBELI-BELAH MUDAH ALIH DI MALAYSIA**

Oleh

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Peningkatan bagi sektor membeli-belah di atas talian menyebabkan pengguna mengubah cara pembelian mereka. Adalah mustahak untuk memahami faktor niat pembelian semula dalam konteks pembelian mudah alih. Walau bagaimanapun, terdapat beberapa isu berbangkit didalam laman sesawang seperti risiko dan kos yang tinggi. Selain itu, terdapat juga penipuan dalam membeli-belah di atas talian boleh mempengaruhi tingkah laku pembeli mudah alih. Oleh itu, tujuan penyelidikan ini adalah untuk mengkaji faktor-faktor yang mempengaruhi kepuasan dan niat pembelian semula mudah alih di Malaysia dengan sokongan dari Theori Social Cognitive (SCT) dan Model Service Evaluation (SE). Walaubagaimanapun, penyelidikan ini juga mengkaji hubungan antara faktor-faktor seperti pengorbanan, kualiti perkhidmatan, nilai yang dirasakan, dan kepercayaan yang dimediasi oleh kepuasan pembeli di atas talian dengan niat membeli semula di laman sesawang. Terdapat 460 kajian soal selidik untuk penyelidikan ini diedarkan di pusat membeli belah yang terletak di Kuala Lumpur dan Selangor. Data dianalisis menggunakan SPSS dan Structural Equation Modeling di PLS. Hasil kajian menunjukkan bahawa terdapat hubungan yang signifikan antara SQ dan PV. Walaubagaimanapun, SAC tidak berkaitan dengan PV. Sementara itu, SQ, PV, dan TR mempunyai pengaruh positif yang signifikan terhadap CS. CS mempunyai hubungan yang signifikan dengan RI. Selain itu, CS dipertengahan hubungan antara SAC, SQ, PV dan TR. Kajian ini menunjukkan bahawa pengamal harus memahami dan fokus faktor-faktor SAC, SQ, PV dan TR yang mempengaruhi CS dan RI dengan mempertengahan kesan CS, untuk mengekalkan pelanggan dan juga mendapatkan lebih banyak pelanggan dengan menggalakkan penggunaan membeli-belah mudah alih. Penemuan ini menyumbang implikasi teori dan pengurusan yang dapat meningkatkan perkhidmatan membeli-belah mudah alih.

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I certify that a Thesis Examination Committee has met on January 2021 to conduct the final examination of Nur Ain binti Mohd Paiz on her thesis entitled (“Factors Influencing Mobile Shoppers’ Satisfaction and Repurchase Intention in Mobile Shopping in Malaysia”) in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the (insert the name of relevant degree).

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## LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
BCA	Bias-Corrected Bootstrap
CB	Covariance-Based
CMB	Common Method Bias
CR	Composite Reliability
CS	Customer Satisfaction
GDP	Gross Domestic Product
HTMT	Heterotrait-Monotrait
MCMC	Malaysian Communications and Multimedia Commission
NCCC	National Customer Complaints Centre
PLS	Partial Least Square
PV	Perceived Value
RI	Repurchase Intention
SAC	Sacrifice
SCT	Social Cognitive Theory
SE	Service Evaluation
SEM	Structural Equation Modelling
SQ	Service Quality
TCA	Tri-Component Attitude
TR	Trust
VAF	Variance Accounted For
VIF	Variance Inflator Factor

# CHAPTER 1

## INTRODUCTION

### 1.1 Chapter Overview

This chapter explains the context of research on the subject of the factors that influence mobile shoppers' satisfaction and repurchase intention of mobile shopping in Malaysia. The following sub-topics are discussed in this chapter: (i) overview of mobile shopping in Malaysia; (ii) mobile shoppers' profile in Malaysia; (iii) mobile shopping and its advantages (iv) the issues and challenges in mobile shopping. This chapter also presents the research problem, research objectives, research objective, and the significance of the research. Finally, the chapter explains the scope of the study, definitions of key terms, the organisation on the research and end with the chapter summary.

### 1.2 Research Background

In recent years, mobile devices and innovations have evolved exponentially (Liu et al., 2019). New mobile services, such as mobile commerce and the advancement of mobile devices, and rising broadband network technologies, are currently undergoing comprehensive growth (Phonthanukitithaworn et al., 2016). Mobile devices with broadband capabilities are the advancement reality of the internet, which includes tablets and smartphones (Magrath & McCormick, 2013). Rapid mobile technology migration has changed customer experience with different aspects of everyday life and has created new business opportunities across the industry (Chao et al., 2013). The wholesale and retail trade industry has attempted to capitalise on mobile commerce to serve and connect with customers better. In markets like mobile shopping, for example, mobile channels have been added (Ghazali et al., 2018; Phong et al., 2018).

At the end of 2018, about 5,1 billion mobile subscribers across the world have experienced rapid growth in the mobile service (GSM Intelligence, 2019). Moreover, by 2025, the global mobile penetration rate is projected to hit 71 percent, and mobile subscriptions are already available to half of the world's population. In particular, there was a rise in mobile penetration in the Asia Pacific region, which was more important compared to developed countries such as the United States and those in Europe that have already reached maturity (GSM Intelligence, 2019). Malaysia has one of the highest growing mobile penetration rates of 140% on average, according to the World Bank Report (Teller, 2014), where more than one mobile device is owned by every Malaysian people (Ghazali et al., 2018).

This mobile shopping was recognized as a new opportunity for business (Lui et al., 2019; Xu et al., 2015). The competition among retailer players is also growing intensively with the impact of the mobile shopping trend. Many large traditional conglomerates are moving online to gain a competitive advantage over their local competitors including international players (Liu et al, 2019). For example, Lazada and Shoppe, the largest online companies in Southern Asia, have developed mobile apps and mobile websites to enable users to shop on mobile devices (Gao et al., 2015). However, mobile shopping remains the least preferable method and maintains a relatively low consumer adoption rate. Therefore, it brings us to question consumers' online shopping preferences toward their mobile shopping activities.

This research contributes to mobile shopping literature as it investigates key factors that propose to influence mobile shoppers' satisfaction and repurchase intention toward mobile shopping, namely sacrifice, service quality, perceived value and trust. For a deeper understanding of the context of study, the next section will explain the overview of mobile shopping in Malaysia before proceeding to mobile shopping and its advantages, mobile shopper profile in Malaysia, and also the issues and challenges in mobile shopping.

### 1.2.1 Overview of Mobile Shopping in Malaysia

The service sector is one of the main industries that contribute to the economic growth in Malaysia. In 2018, the service sector contributed 55.3% to the GDP growth with an increase from 2017 by 6.3% (Ministry of Finance, 2019). The following Table 1.1 lists out the statistics of GDP by sectors from 2017-2019. The growth in the wholesale and trade retail subsector that contributed most to the GDP and formed the online environment platform as shown in Table 1.2 (Ministry of Finance, 2019).

**Table 1.1: Gross Domestic Product (GDP) by Sector 2017-2019**

	% GDP	% Change		
	2018	2017	2018	2019
Service	55.3	6.2	6.3	5.9
Manufacturing	23.0	6.0	4.9	4.7
Mining	8.0	1.0	-0.6	0.7
Agriculture	7.8	7.2	-0.2	3.1
Construction	4.5	6.7	4.5	4.7
<b>GDP</b>	<b>100.0</b>	<b>5.9</b>	<b>4.8</b>	<b>4.9</b>

Source: Economics Performance and Prospects Report (2019)

The growth in the wholesale and trade retail subsector that contributed most to the GDP and formed the online environment platform as shown in Table 1.2 (Ministry of Finance, 2019).

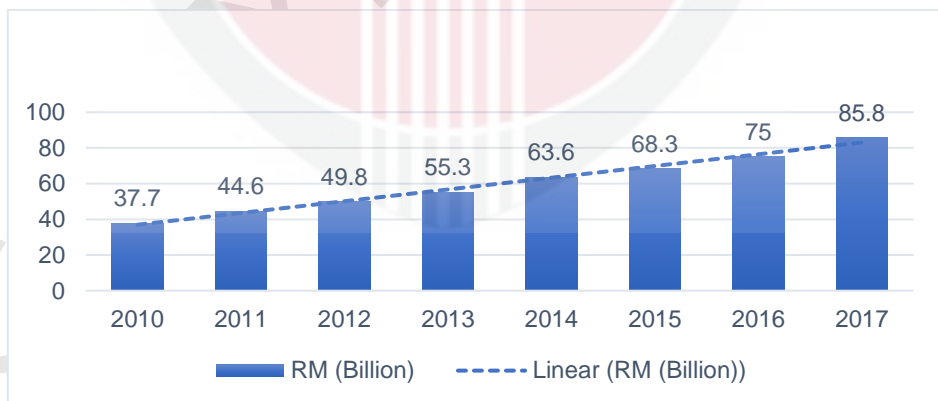
**Table 1.2: Service Sector Performance 2017-2019**

	% GDP		% Change	
	2018	2017	2018	2019
Wholesale and retail trade	15.4	7.1	7.0	6.3
Finance and insurance	6.8	4.6	5.5	5.3
Information and communication	6.2	8.4	8.1	8.0
Real estate and business services	4.6	7.4	7.3	6.6
Transport and storage	3.6	6.2	5.8	5.5
Food & beverages and accommodation	3.0	7.4	8.1	6.9
Utilities	2.5	2.9	4.7	4.6
Other services	4.4	5.1	5.3	5.1
Government services	8.7	4.9	4.4	4.2
<b>Services</b>	<b>55.3</b>	<b>6.2</b>	<b>6.3</b>	<b>5.9</b>

Source: Economics Performance and Prospects Report (2019)

As shown in Figure 1.1, annually there are encouraging growth patterns in the online commerce industry, as it is one of the most significant sectors in Malaysian economy that contributes to the overall GDP (Department of Statistics, 2019). The online commerce platform has seen a promising trend, with gross value added adding 6.3% to Malaysia's GDP, which has gradually grown over the last seven years to RM 85.8 billion in 2017, compared to RM 37.7 billion in 2010 with an estimated annual growth rate of 12.5%. (MCMC, 2018). The next section explains about mobile shoppers' profiles in Malaysia.

**Figure 1.1: Growth Pattern in Online Commerce on GDP**



Source: Department of Statistics (2019)

### 1.2.2 Mobile Shoppers Profile in Malaysia

The growth of Malaysian consumers using mobile devices to make online transactions is very encouraging. Malaysia is an emerging country as the top two Asia Southern region for mobile penetration market, with 16.6 million Malaysian active mobile consumers use internet for searching for information, socialising, and shopping (MCMC, 2018). Hanson (2011) defines a mobile device as “a portable computer that is an electronic device capable of wireless communication, both compact and lightweight, for portability”. Mobile devices with broadband capabilities are the advancement reality of the internet, which includes a tablet computer, laptop, smartphone, digital camera and PDAs (Damle et al., 2016). A smartphone is the more popular mobile service for shoppers to buy online product and services, with a positive growth from 68.7% in 2016 to 78.3% in 2018 (MCMC, 2018). This indicates that mobile shopping has evolved significantly in recent years and has the potential to change the shopping experience through mobile devices (Choi, 2018).

For different purposes, consumers shop online, mostly for convenience, accessibility, range of prices, product details and ease of payment. Likewise, the percentage of Malaysian online shoppers among Internet users has increased, from 35.3% in 2016 to 53.3% in 2018. Meanwhile, MCMC (2018) stated that adults in their 20s to 30s have the most online purchasing power. There is a higher trend for customers with higher income brackets (RM3,000 and above) to perform mobile shopping transactions as compared to those from low-income levels. Male consumers consist of 40.5% while female consumers are 59.5%. Therefore, male and female consumers are equally important in mobile shopping, and therefore, retailers cannot afford to ignore them. On average, about RM470 per transaction is spent by a person in Malaysia. Clothing and accessories are the most common product categories purchased online in the wholesale and retail trade market, followed by electronics, sports-related products and household appliances. Other services such as groceries, medicine and online food ordering; and travelling products including accommodations, travel tickets and vehicle rental are also in high demand (MCMC, 2018).

The mobile shopper, referring to eMarketer (2013), is described as a "mobile device user who uses a mobile device to browse, research or compare products via a mobile website or mobile apps, but does not necessarily make a purchase". Mobile shoppers are grouped into two kinds. The first is the real shoppers who have purchased a website or app; another is browsers who have merely visited websites or apps without making purchases (Forsythe & Shi, 2003; Lee & Johnson, 2002). Individuals who use mobile devices who are actual shoppers are the participants in this research. The fact that they have the ability to make online transactions using mobile devices was the reason why these users were considered. The next chapter discusses mobile shopping and its benefits.



### 1.2.3 Mobile Shopping and its Advantages

In line with the rapid technology migration to mobile-mediated transactions, mobile shopping has emerged as a new shopping platform for consumers (Kalinić et al., 2019). Referring to Wong et al., (2012), the definition of mobile shopping as “the ability to purchase goods and services anywhere through a mobile device”. Lai et al. (2012) notes that mobile shopping “empowers shoppers with the ability to gather information on the spot from multiple sources, check on product availability, special offers and alter their selection at any point along the path to purchase”. Mobile shopping is an extension of conventional online shopping that enables users to make wireless purchases at anytime and anywhere. (Liu et al., 2019; Wang et al., 2015). Mobile shopping is often seen as quicker, stronger and more reliable than computer-based electronic commerce (Agrebi & Jallais, 2015; Hsieh, 2014).

Mobile shopping occurs when mobile devices like smartphones or tablets are used for any purchase-related activities via the mobile internet (e.g., 3G, 4G, 5G) (Grob 2015; Wang et al., 2015; Lu, 2014). Consumer preferences for online shopping are moving to mobile shopping platforms, and it has become a popular behaviour trend among online shopping alternatives for contemporary consumers to search for information, browse for products, comparing price and specification, and purchasing products or services using mobile devices (Madan & Yadav 2018; Hung et al., 2012) leading, thus, to the formation of mobile shoppers’ behaviour. Transactions performed through mobile shopping include purchasing consumer goods and retail items, and payments for services such as accommodation and airline tickets (Ghazali et al., 2018). Mobile shopping has its own advantages and benefits from the point of view of customers and, relative to conventional shopping, as summarised in Table 1.3. Next, the section presents the issues and challenges of mobile shopping.

**Table 1.3: The Advantages of Mobile Shopping**

	Advantages	Source
Ubiquity	The use of mobile devices enables consumers to receive information and conduct transactions anywhere, anytime.	Zhang et al., (2012) Nassuora (2013)
Accessibility	Mobile devices enable consumers to be contacted at virtually any time and place.	Sanakulov and Karjaluoto (2015)
Convenience	The portability of mobile devices and their functions from storing data to access to information or persons are significant.	Sanakulov and Karjaluoto (2015)
Localisation	Location-based applications enables consumers to receive	Zhang et al., (2012)

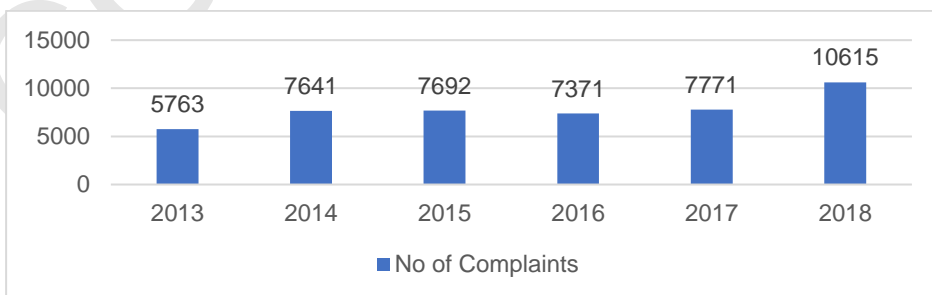
	relevant information on which to act.	
Instant Connectivity	Instant connectivity or “always on” is becoming more prevalent with the emergence of mobile data networks (3G, 4G). Users of mobile data services will benefit from easier and faster access to the internet.	Nassuora (2013)
Time Sensitivity	Access to real-time information (such as quantities in stock or a clearance sale at a nearby shop) that leads to a spontaneous purchase transaction.	Anil et al., (2003)
Security	Mobile devices offer a certain level of inherent security.	Nabavi et al., (2016)

Source: Phong et al., (2018)

#### 1.2.4 The Issues and Challenges in Mobile Shopping

Although mobile shopping offers many benefits, because of the nature of online shopping, consumers are still exposed to risks. Online shopping has again surpassed the number of complaints received by the National Customer Complaints Centre (NCCC), as in the previous year with a total number of 10,615 complaints as referring to Figure 1.2. Thus, in a period of 4 years, the number of online complaints has risen by 39% (NCCC, 2018). One of the business strategies is to study and understand consumer behaviour in order to attract potential the mobile shoppers so that it can be measured empirically and the result could help relevant parties such as the policymakers and the practitioners to plan and strategies accordingly. Therefore, to better understand consumer behaviour, mobile shopping issues in Malaysia need to be identified particularly factors that influence mobile shoppers’ behaviour so that they can be examined and solved.

**Figure 1.2: Number of Consumer Complaints in Online Purchases**



Source: The NCCC Annual Report (2018)

#### **1.2.4.1 Sacrifice**

As discussed earlier, mobile shopping has many benefits but there are many challenges such as the sacrifice experienced by customers, namely time, resources, and effort to acquire a product or service (Brady et al., 2005; Cronin et al., 2000). Sacrifice mirrors transaction costs in mobile shopping, and it includes monetary costs, such as the price that the customers have to pay (Giovanis et al., 2016; Widianti et al., 2015). Despite the advantages of mobile shopping, one of the factors that has hindered the growth of mobile shopping is the monetary cost (Wei et al., 2009). It has been argued that customers have to bear different costs in the process of switching from conventional online shopping to mobile shopping such as equipment (buying mobile device), access (mobile internet fees) and conversion cost of using mobile device to a level higher and impede the intention of using mobile shopping (Phong et al., 2018). In addition, non-monetary costs include the time and effort that customers have to spend on the searching, reviewing, and purchasing process (Giovanis et al., 2016; Widianti et al., 2015). However, mobile shoppers are sacrifice to spend a few hours to do research the product or service information such as price comparison, the best deals, auctions and also various promotions from search engines, retailers' website or apps and social media platforms to validate the product and service quality through reviews, comments, and feedback before proceeding to purchase (Ghazali et al., 2018; Wei et al., 2009). Mobile shopping incurs considerably more costs, time and efforts thereby making repurchase intention towards mobile shopping tends to be less positive. With these arguments this research believed that factor of sacrifice could influence mobile shoppers' behaviour towards mobile shopping, hence proposing sacrifice factor to study mobile shopping context. The next section discusses other factors that influence consumer behaviour namely service quality.

#### **1.2.4.2 Service Quality**

The use of mobile shopping in Malaysia is also relatively remain low (Ghazali et al., 2018; Wei et al., 2009). This is because the information provided by the mobile websites or apps is ambiguous, inaccurate and incomplete with regards to product selection, price offers, ease of navigation and also mobile transaction (Rita et al., 2019). Therefore, the quality of mobile websites or apps designs plays an important dimension to influence consumers repurchase intention towards mobile shopping. Furthermore, product shipment is also a troubling issue when the consumer is promised that the product or services will be delivered once the payment is made, and will arrive at an agreed date. Unfortunately, some products take more than a month to arrive at the consumer's premise (Blut, 2016). The quality problem is often questioned when customers who buy goods online are not happy with the faulty products, with a long period of exchange of products that did not follow specifications as per advertised online (Blut et al., 2015). In addition, mobile shopping raises some problems and questions regarding protection and privacy issues among mobile shoppers. Security issues have arisen from a wide variety of possible risks, such as counterfeit credit and debit cards, bogus online stores and hacking of bank data (Fortes & Rita, 2016).

Mobile shoppers are also concerned, apart from security, with privacy concerning personal data. Many mobile shoppers are very worried about the leakage of their personal details, such as the likely disclosure to unauthorised parties of credit card accounts and login information, as well as the exploitation of information for marketing purposes (Wang et al., 2015). Furthermore, service quality always has an impact on customer service as refers to how often an online store voluntarily provides services such as responding to customers' needs and inquiries promptly (Turel & Connelly, 2013). Making these services available at the touch of a mobile device is one of the important elements of customer service because mobile websites or apps do not have salespersons presence and direct human interaction is limited, making the experience to be impersonal (McLean & Wilson, 2016). Wolfenbarger and Gilly (2003) stress that delayed customer inquiry services may lead to a negative impact on consumers thus affecting consumer repurchase intention. Hence, online service quality is strongly influenced by website design, fulfilment or reliability, security or privacy, as well as customer service. Therefore, to confirm that factor of service quality is very important in the mobile shopping context, the research suggests examining the factor of service quality as a strong predictor of mobile shoppers' behaviour towards mobile shopping. The next section discusses another issue related to consumer behaviour that is perceived value.

#### **1.2.4.3 Perceived Value**

Perceived value is the core element in a relational exchange, and it is the determines the consumers' decisions about purchasing and their future behaviour regarding shopping and after-purchase activities (Liu et al., 2015). A valuable exchange of the salient sacrifice or giving benefits is an important aspect not only in offline purchasing but also in online ones (Berraies et al., 2017). The anticipated perceived value, according to Tankovic and Benazic (2018), is a customer's expectation of the outcome of purchasing a product or service based on their sacrifices and potential benefits. As a result, perceived value is influenced by product and service quality factors identified at the time, such as money and purchase effort. When evaluating the value in relation to the purchase price, customers also consider the possibility of longer-term losses. When developing value perceptions, consumers consider the consequences of service performance (Gan & Wang, 2017). Hence, the research proposes to study perceived value as it is considered as an important factor that influences mobile shoppers' behaviour as certain actions can improve the issues. The following section discusses trust.

#### **1.2.4.4 Trust**

Trust is significant precedent for the purpose of the shopper to acquire information and make a purchase. (Artigas & Barajas-Portas, 2019). Customers need to build trust in both mobile technology and vendors to establish mutually beneficial partnerships within the context of mobile shopping (Lee et al., 2015; Chang, 2015). Mobile shopping involves great uncertainty. Therefore, trust is critical to facilitating mobile user behaviour (Thakur, 2018). In this way,

customers who are more likely to use technology feel less exposed to hazards or insecurities and are more likely to trust the mobile buying process. Compared to those customers who do not like playing with technology, it may also create greater trust in the technologies themselves and the service provider (Jimenez et al, 2016). In addition, discrepancies of information between the buyer and the seller may be even more pronounced when doing online shopping through mobile devices, because the buyer faces a number of disadvantages that would not occur in an offline environment, such as failure to touch and test the product or service, mistrust in payment and transmission of personal information via these devices, lack of information and unreliable access to the Internet (San-Martín, 2015). Therefore, to confirm that this factor is important within the mobile shopping context, the research suggests examining how trust influences mobile shoppers' behaviour. Based on the discussed mobile shopping issues in Malaysia and the proposed determinants, the next section proceeds with the problem statement.

### **1.3 Statement of Problem**

Today, the demand for online purchasing using mobile technology has increasing trend in society today and Malaysian people are ranked among the most passionate mobile shoppers which contributed to growing competitive advantages intensively in the retailing market (Artigas & Barajas-Portas, 2019; Liu et al., 2019; Ghazali et al., 2018; Phong et al., 2018). In the statement from the Department of Statistics Malaysia estimates that online retail revenue of RM 13 billion will be managed via mobile channels by 2020. (DSM, 2020). However, as the usage of mobile devices for online shopping increases in importance, so does the number of online shopping grievances. For example, according to the National Consumer Complaints Centre (NCCC), online sales are the most widely identified fraud incidents, with a cumulative loss of RM 6 million in 2018. Likewise, 70% of online security events are fraud cases, including online purchase fraud, and this dominance is expected to persist throughout the future (CyberSecurity, 2020). Online purchasing fraud occurs when items purchased online that did not reach consumers, receiving items not as advertised, receiving different items and damaged goods. Technological revolution, such as the use of mobile website or apps as an online business platform has further increased the number of frauds cases. For instance, a media news in Malaysia reported that an online scammer seller defrauded 6187 individuals out of RM 700,000. (The Star Online, July 20, 2020). This data offers some metrics to see how the change in the way we buy goods and services has put all of us at risk of being scammed on a regular basis, as well as ways for fraudsters to defraud more people. In clear terms, the vehicles for scammers to communicate with their future victims have been smartphone websites or apps. Fraudsters, anonymously or even posing as people will pretend to be legitimate sellers and create social relationships and build confidence in order to defraud their victims. Many mobile shoppers believe what they see, read, or hear on mobile websites or applications, which is alarming. A research of information on mobile shopping fraud will help illuminate the existing state of affairs and inspire new concepts for analysis.

Mobile shopping platform is believed to create major challenges in consumer perception and purchasing behaviour (Liu et al., 2018; Madan & Yadav, 2018; Marriott et al., 2017); however, the behaviour of Malaysian consumer towards this platform still ambiguous. This is presumably the result of the limited availability of discussions and findings on mobile shopping (Ghazali et al., 2018). In Malaysia, mobile shopping research is still perceived to be less attention by practitioners and policy makers. As a result, this view has resulted in a limited knowledge of mobile shopping in Malaysia (Ghazali et al, 2018; Wei et al., 2009). However, if practitioners and policy makers understand the causes underlying the mobile shopping context, it may contribute to better consumerism knowledge in consumer behaviours. Therefore, a comprehensive framework of mobile shopping is important to help future researchers and organisations to better understand the issues. However, the question is whether Malaysian practitioners are ready and have provided sufficient mobile websites or application facilities to influence the behaviours of mobile shoppers.

Therefore, to attract the attention of mobile shoppers looking for mobile shopping are recommended to be investigated from the sacrifice perspective. Customer sacrifices are divided into two, namely monetary and non-monetary sacrifice (Brady et al., 2005; Cronin et al., 2000). Customers' expectations of their desire to buy a good or service will be affected by sacrifice. (Zeithaml, 1988). Customers with a scarcity on buying power will not purchase or switch to others even though they have favourable perceived value (Widianti et al., 2015). Consumer sacrifice has been studied in the context of telecommunication (Giovanis et al., 2016), transportation (Widianti et al., 2015) and retailing (Luk et al., 2013; Sharma et al., 2012). In addition, prior studies conducted had found direct linkage between sacrifice with perceived value (Thielemann et al., 2018; Giovanis et al., 2016; Widianti et al., 2015) and satisfaction in different settings. However, the effect of sacrifice on perceived value and customer satisfaction has not been evaluated yet especially in mobile shopping context. Thus, sacrifice from the customer's perspective is proposed to be examined as the factor that influences mobile shoppers' behaviour.

Service quality always plays a major role in associating key outcomes such as customer satisfaction and repurchase intention (Keshavarz & Jamshidi, 2018; Mohammad Salameh et al., 2018). However, the concept of service quality which have not been fully investigated in the mobile shopping context as there are limited studies on the service quality in Malaysia study. Most of the studies discuss specific dimensions such as website design, fulfilment or reliability, security or privacy, and customer services (Rita et al., 2019; Blut, 2016; Blut et al., 2015). Therefore, recent research on the dimensions and overall quality of services typically has variations in terms of methods and outcomes, without conclusive conclusions (Rita et al., 2019). In addition, previous researchers have reported an important correlation between service quality and perceived value and customer satisfaction. (Slack et al., 2020; Gopi & Samat, 2020; Raza et al., 2020). There is, however, a lack of research to support this problem in the context of mobile shopping. Therefore, the research is aims to fill in these gaps by studying the overall service quality to evaluate the influence on the mobile shoppers' behaviour.

Apart from service quality, perceived value is also an important role in predicting purchase behaviour (Gan & Wang, 2017). Previous research has empirically validated the assumed relevance of customer behaviour in a variety of commercial contexts, such as conventional mall shopping (Kesari & Altulkar, 2016) and online shopping (Chiu et al., 2014; Carlson et al., 2015). Some studies discuss the perceived value within mobile shopping context (Liu et al., 2015; Xu et al., 2015). While a growing number of researchers have been carried on the subject of perceived value, many of them concentrated on the conceptual study. In addition, previous research revealed the relationship between perceived value and customer satisfaction (Kusumawati & Rahayu, 2020; Lee, 2019; Lee & Phau, 2018). However, fewer prior researchers highlighted in mobile shopping context. Therefore, to add to the existing knowledge in the existing literature, perceived value is proposed as one of the factors that influence mobile shoppers' behaviour.

Trust is an essential factor that drives customer behaviour and determines the progress of technology adoption (Lam & Shankar, 2014; Nassuora, 2013). In the sense of mobile shopping, a large number of previous studies have seen confidence as the most important factor (Artigas & Barajas-Portas, 2019; Jimenez et al., 2016; Zhao et al., 2016; Chong et al., 2012). However, the discussion on trust is growing in mobile shopping studies but little is known on the empirical study of assessing trust from the mobile shoppers' perspective. Also, many studies found the relationship between trust and customer satisfaction (Dehghanpouri et al., 2020; Selim et al., 2019; Kundu & Datta, 2015). However, less highlighted the causal relationships in mobile shopping context. Thus, the empirical study of mobile shopper behaviour in this research will contribute to this growing area and advance the knowledge in the empirical study. Trust is considered one of the major factors in mobile shopping in terms of customer satisfaction as well as repurchase intention.

Once trust has been established, customer satisfaction becomes a vital role in establishing long-term customer relationships and to further generate repurchase intention (Kataria & Saini, 2019). Despite the fact that customer satisfaction studies have been gradually rising, it is geared more towards the conceptual perspective explored in others contexts such as banking (Boonlertvanich, 2019); logistic (Selim et al., 2019); mobile shopping (Thakur, 2019); and online shopping (Rita et al., 2019; Sreeram et al., 2017). However, little known on the empirical study of customer satisfaction. There are also inconsistent results that still exist in the relationship between some factors with consumer behaviour (Artigas & Barajas-Portas, 2019); Kalinic et al., 2019; Mohammad Salameh et al., 2018). There are also very limited studies of customer satisfaction as the mediator (Trivedi & Yadav, 2018; Hussain, 2016; Kataria & Saini, 2019; Kaura et al., 2015; Chou et al., 2015). This study therefore aims to fill the customer satisfaction gap and contribute expertise in the field of customer satisfaction.

To attract Malaysian mobile device users to use a mobile shopping system, the study of repurchase intention is crucial to provide insight into the behaviour of this market segment (Trivedi & Yadav, 2020; Adekunle & Ejechi, 2018). On the basis of the earlier, it was proposed that the intention to repurchase is considered one of the most significant variables to predict the actual behaviour of consumers. In previous literature, little attention was paid to the purpose of repurchasing mobile shoppers. Although the number of empirical studies on the topic of the intention to repurchase mobile shopping have been carried out (Madan & Yadav, 2020, 2018; Peng & Chen, 2019; Adekunle & Ejachi, 2018; Chiu & Cho, 2019). Thus, the empirical study of repurchase intention in this mobile shopping research will contribute to the growing area and advance the knowledge in the empirical study. Hence, this research is set out to examine repurchase intention empirically to enrich the body of knowledge in this context.

Therefore, the Social Cognitive Theory (SCT) by Bandura (1989) that explains consumer behaviour and action is the best foundation of this research. SCT had been used in psychology field, thus extending the theory in marketing field would enrich the existing literature. Also, this research applies the Service Evaluation (SE) model work by Brady et al., (2005) and Cronin et al., (2000) that aims to understand the consumers' purchasing behaviour. This SE model that explains consumer behaviour is the reliable foundation of this research and had been tested widely in marketing studies, thus extending the SE model would enrich the mobile shopping literature. Therefore, this research is distinctive from the other existing literature as with the SCT theory and SE model as the foundation because it examines the relationships between the factors of sacrifice, service quality, perceived value and trust as a model to assess the mediation effect of customer satisfaction that can influence repurchase intention toward mobile shopping in Malaysia. After acknowledging the statement of problems, the research questions and objectives are stated in the next section.

#### **1.4 Research Question**

Several questions were used in this analysis to direct the investigation. The research questions are listed below:

- i. Do sacrifice and service quality effect perceived value toward mobile shopping?
- ii. Do factors (sacrifice, service quality, perceived value and trust) influence customer satisfaction toward mobile shopping?
- iii. Does customer satisfaction effect repurchase intention toward mobile shopping?
- iv. Does customer satisfaction mediate the relationship between sacrifice, service quality, perceived value, trust and repurchase intention toward mobile shopping?



## **1.5 Research Objective**

The general objective of this research is to determine factors influencing mobile shoppers' satisfaction and repurchase intention on mobile shopping in Malaysia. Thus, this leads the research into specific research objectives as follows:

- i. To examine the effect of sacrifice and service quality on perceived value towards mobile shopping.
- ii. To examine the relationship between factors (sacrifice, service quality, perceived value and trust) and customer satisfaction towards mobile shopping
- iii. To examine the effect of customer satisfaction on repurchase intention towards mobile shopping.
- iv. To explore the mediating effect of customer satisfaction on the relationship between sacrifice, service quality, perceived value and trust and repurchase intention towards mobile shopping.

## **1.6 Significance of Research**

The research provides some significance to the academics, practitioners and to the policy makers. The next paragraph discusses details of the significance of the research to the academics, practitioners and policy makers perspectives.

This research is important from an academic perspective and is intended to extend the theoretical and empirical study of consumer behaviour in the context of mobile shopping, which is relatively scarce (Liu et al, 2019; Rita et al., 2019). Therefore, this research will enrich the theoretical and empirical study. There is limited empirical research on the study of satisfaction as a mediating construct and the study of mobile shoppers repurchase intention is relatively limited (Trivedi & Yadav, 2018; Hussain, 2016), in this way, the study of consumer behaviour contributes to the current body of information. The research provides new light on economic phenomena particularly in mobile shopping context, as this research in this field is still considered novel and not comprehensive. The combination of sacrifice, service quality, perceived value and trust as proposed factors of the consumer behaviour has been understudied in any existing works of literature thus contributing to the understanding of the consumer behaviour study in the mobile shopping context. The research uses the Service Evaluation (SE) Model as underpinning model that would advance the knowledge in this field. The research also contributes to the body of knowledge by examining the Social Cognitive Theory (SCT) in marketing study. The research also provides significant contribution on the SCT theory as the all variables are examined using this theory.

At the same time, from practitioner perspective, the suggested factors in this research namely sacrifice, service quality, perceived value and trust are crucial in the mobile shopping as they provide the information that is needed by the mobile shopping supply chain in planning their marketing strategies. For

instance, sacrifice based on cost, time and effort to provide better service value. The service quality with the dimensions including website design, fulfilment or reliability, privacy or security and customer service provide the overall service quality in the mobile shopping to move forward and achieve sustainability. Suggested perceived value is measured by sacrifice and benefit to provide companies a competitive advantage. Trust is becoming important due to confidence and ultimately repurchase intention of the mobile shoppers. Online retailers must be aware of how rapidly the competitions grows in the market. If they are slow to keep up with the customer's demands, the customer can easily change to other alternatives. Therefore, the research will contribute to the knowledge gap particularly for practitioners in term of the awareness of the existing strategies that could retain the customers' satisfaction and repurchase intention thus maintaining the mobile shopping sustainability.

From the policy maker perspective, the research is significant to the policy maker as it can provide evidence on the importance of the mobile shopping market. The research offers some evidence that mobile shopping in Malaysia is important thus requiring urgent attention by the government's policy. Mobile shopping needs to be discussed or included in the government strategic planning such as in the Twelfth Malaysia Plan. The research also aims to shed new light on factors namely sacrifice, service quality, perceived value and trust that are equally important in attracting mobile shoppers. These highlights required further attention and improvement in the policies such as a focus on enhancing marketing communication with better budgeting and incentives in innovation contribution. The next section discusses the scope of the research.

## **1.7 Scope of the Research**

This research aims to investigate the factors influencing mobile shoppers' satisfaction and repurchase intention towards mobile shopping in Malaysia. Mobile shopping has been chosen as the research context due to the contributing factor of the service sector to the Malaysia economy and also contributes to the national and foreign income where there has been rapid growth pattern from 2010 until 2018 in GDP.

The target sample of the research is in Kuala Lumpur and Selangor area, the capital city of Malaysia. The area is considered sufficient to collect samples because it is the main area of the shopping malls that can attract Malaysian people. These shopping malls were selected as research settings due to their large number of shoppers, where their mobile shoppers are being selected as sample elements. This is because the majority of mobile device users are mobile shoppers who have experienced purchasing online product or service. Thus, the research aims to examine the trend of mobile shoppers as the target population. In addition, as one of the objectives of this research. Therefore, the sampling perspective is mobile shoppers with the expectation of their related knowledge and practice on mobile shopping to answer the related question on mobile shopping. The next section provides the description of the main terms and concepts of the analysis, as the scope of the study is stated.

## 1.8 Definition of Key Terms and Concepts

In order to provide clarity of key aspects and variables in this analysis, the following words are described. The description of the words and concepts is defined below.

**Sacrifice.** Sacrifice is “what is given up or sacrificed in terms of time, energy, and money to acquire a service” (Zeithaml, 1988). The construct is a measure to represent the consumers’ perceptions of the monetary and non-monetary sacrifice of obtaining and using a service (Brady et al., 2005). Wirianti et al., (2015) define sacrifice as “a form of consumers’ attitudes associated with the sacrifice to obtain services”. This research defines sacrifice as “a mobile shopper forgoing certain things such as monetary and non-monetary sacrifice to acquire certain products or services while doing mobile shopping”.

**Service Quality.** Service quality is defined as “the degree to which the service delivered matches the consumers’ expectations and the company’s actual performance” (Parasuraman et al., 1985). Service quality in an online context is defined as “the extent to which websites facilitate efficient and effective shopping, purchasing, and delivery of products and services” (Zeithaml et al., 2002). The eTailQ dimensions developed by Wolfinbarger and Gilly (2003) consist of website design; reliability or fulfilment; security or privacy; and customer service, which is applicable to be used in this research. This research defines service quality as “mobile shoppers’ overall evaluation and perceptions of service quality towards mobile shopping”.

**Perceived Value.** Perceived value is “the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given” (Zeithaml, 2000; Zeithaml, 1988). In this research, Tsao et al., (2016) define perceived value as “the feelings of consumers aroused by comparing benefits and sacrifices from online retail activities in which shopping websites endeavour to establish a long-term relationship with the consumers by providing services that are valuable to them”. This research defines perceived value as “a consumer’s perception of net benefits derived from the trade-off between the benefits and the associated sacrifices derived from the mobile shopping”.

**Trust.** Trust is “psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behaviours of another” (Rousseau et al., 1998). In this study, the definition of trust is defined by Carter et al., (2014), trust as “the faith the customer has toward on the online vendor that customers will be treated fairly”. This research defines trust as “the consumer belief, confident or expectation of mobile shopping that fulfil their needs and not taking unexpected actions produces negative results”.

**Customer Satisfaction.** Satisfaction is “a persons’ feelings of contentment or disappointment resulting from the comparison of a product’s perceived

performance, in relation to expectation” (Kotler, 2000). According to Artigas and Portas (2019), customer satisfaction is defined as “an emotional response to the degree and speed with which mobile shopping is adopted, and on the other, as a response to the expected benefits of using mobile shopping”. This research defines customer satisfaction as “the mobile shopper’s overall positive or negative feeling based on the purchasing experience from mobile shopping”.

**Repurchase Intention.** Repurchase intention is “the subjective probability that a customer (i.e., experienced customers) will continue to purchase a product from the same online seller” (Chiu et al., 2014). Goh et al. (2016) defined repurchase intention as “when consumers initiated the effort to purchase the same products or services again”. This research defines repurchase intention as refers to “the strength of consumer’s willingness to repurchase same product or service through the mobile shopping. Next section presents the thesis organisations for the research”.

## 1.9 The Organisations of the Research

This thesis consists of seven chapters

Chapter one discusses the research information which covers several topics including the background of the research, statement of the problem, research objectives, research questions, the significance and scope of research, and finally, the definition of terms and concepts for each variable are presented.

Chapter two is the review of literature related to the constructs that consist of the factors namely sacrifice, service quality, perceived value and trust. While for the outcome, behaviours consist of customer satisfaction and repurchase intention. The chapter ends with a chapter summary.

Chapter three explains the underpinning theory and model namely Social Cognitive Theory (SCT) and Service Evaluation Model (SE). Then, the chapter presents the proposed research conceptual framework. The chapter then proceeds to develop the hypotheses supported by the discussion on the literature review. The chapter ends with a summary of the research objectives and the hypotheses.

Chapter four elaborates on the research methodology of the study that starts with the research paradigm, research methodology, and research process. This chapter is then followed by a research design and survey method. This chapter explains on the sampling design, which includes the target population, unit of analysis, sample size, sampling technique and data collection instrument. In addition, the chapter discusses the measurement development, pilot study analysis and ethical consideration. Then, the chapter explains the data analysis

procedure and structural equation model, which includes the measurement, structural and mediation model analysis.

Chapter five presents the data analysis, which starts with the preliminary analysis that reports on the data preparation and data screening. Then the chapter presents the descriptive analysis, which describes the demographic analysis and descriptive statistics. This is followed by the multivariate analysis that reports on the Measurement Model and Structural Model. The chapter ends with an analysis of the direct and mediating hypotheses testing and chapter summary.

Chapter six presents the research findings and discussions that relate the finding to the results in the existing literature and provide insights into the current scenarios in the mobile shopping in Malaysia.

Finally, chapter seven describes the conclusion of the research. Then, the chapter proceeds with the contribution of the research and discusses the study limitations and ends with recommendations for future research.

#### **1.10 Chapter Summary**

This chapter introduced the research background where it outlined the overview of mobile shopping, mobile shoppers' profile and mobile shopping and its advantages. Then, the chapter discussed the issues and challenges in mobile shopping. The chapter then provided the research problem, research questions and objectives, the significance of the study. Subsequently the scope of the study is presented followed by the definitions of key terms. The chapter ended with the organisation of the research where a brief overview of chapter one until seven is presented.

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