

A Conceptual Model on Behavioural Intentions to use Mobile Banking in Islamic Banks: The Role of Religiosity, Perceived Lifestyle, Personal Innovativeness and Religious Authority

¹Ziad Esa Yazid, ²Zairani Zainol, ³Juhaida Abu Bakar

¹Islamic Business School, Universiti Utara Malaysia

²Islamic Business School, Universiti Utara Malaysia

³School of Economics, Finance and Business, Universiti Utara Malaysia

ziadesa@yahoo.com

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Abstract:

The disproportionateness between mobile banking usage and Islamic banking development in Malaysia has created an important issue for Malaysian Islamic banks to address. Malaysia has a relatively low usage rate in terms of mobile banking, yet it is the centre for Islamic banking with the highest market share compared to other countries. Therefore, it is essential to analyse the reasons and possible solutions for the low mobile banking usage rate so that the Malaysian banking system, which significantly includes Islamic banking, can remain competitive with global mainstream banking. The main objective of this research is to examine the effects of Shariah compliance, perceived lifestyle and personal innovativeness as determinants of intention to adopt mobile banking among Islamic bank customers by using literature research. It is hypothesised that these three proposed variables are important factors in addition to the other factors in the attitude dimension in the Decomposed Theory of Planned Behaviour (DTPB) model that influences consumer attitudes and, ultimately, consumer intentions towards using mobile banking. The Decomposed Theory of Planned Behaviour is used as an underlying theory to explain how these factors are responsible for behavioural intentions to use mobile banking in Islamic banks.

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I. Introduction

Technological advances, in particular mobile communications technology, has revolutionised the way people communicate with each other. People now interact using mobile technology e.g. by using smartphones instead of

traditional face-to-face interaction. It has been argued that the new generation prefers to communicate via smartphones because this is the best means of information (Steinmetz, 2018). With smartphones, users can obtain information faster and more efficiently without having to

travel long or even short distances and without the problems of prying open a bulky laptop.

In the business world, mobile banking is also utilised as means of payments for products, purchases and advertising (Asongu & Nwachukwu, 2018; Martins et al., 2018). This enables existing businesses to save costs and enable others, such as wage earners or home makers, to become part time entrepreneurs (Richter, Kraus, & Syrja, 2015). Existing businesses can save costs by reducing physical business premises which incur high costs and investment (Newbery & Bosworth, 2010) while part-time entrepreneurs are able to start carrying out online business to supplement their household income. Despite the advantages, many authors such as Huili and Chunfang (2011), Yu (2012), Tu et al. (2014) and Musa et al. (2015) argue that the rate of usage of mobile banking is low thus making it more important to understand the factors that influence consumers' decision making.

Mobile banking also comes with several disadvantages. The first being that the lack of face-to-face interaction affects personalised attention, which is important for customer loyalty and retention (Levy, 2014). Secondly it is also argued that, through mobile e-commerce, the convenience of payments through mobile banking can indirectly encourage compulsive spending behaviour (Garret et al., 2014; Cobla & Osei-Assibey, 2018). Theong, Osman and Yap (2018) argue that compulsive spending behaviour can result in defaulting on monthly obligations which eventually puts pressure in the economy as it affects economic growth.

An essential definition of mobile banking is that it is the action of accessing banking information and performing banking transaction via mobile devices such as smartphones and tablets (Valaei, Nikhashemi, & Ha Jin, 2018). Paying for m-commerce is just one of the

functions of mobile banking where users purchase goods online through their smartphones and make payments through the extensions that are smartphone friendly (Al-jabri, 2012; Phiri & Mbengo, 2017; Baabdullah et al., 2019). Other studies such as Phiri and Mbengo (2017) even define mobile banking as an e-commerce application that facilitates their customers to perform payments in their online shopping transactions by their smartphones. In Malaysia, mobile banking is a form of application, better known as apps and mobile-friendly websites, that is redirected after customers agree to make a purchase and to make payments.

Section One of this paper outlines the determinants of intentions to use mobile banking among the customers of Islamic banks. The problem statement is discussed in the second section which demonstrates the importance of this paper. The third section is the literature review which is then a basis for Section Four which outlines the Research Questions. Section Five explains the research purposes and the sixth section presents the methodology. Finally Section Seven offers a conclusion.

II. Problem Statement

Different countries have different levels of utilisation of mobile banking depending on the region and economic development. Generally, as a developed region, Europe has a relatively high mobile banking penetration rate; for instance, Sweden (64%), Ireland (60%), Poland (52%), Spain (52%), Netherlands (51%), and the United Kingdom (50%). On a par with its European allies, the United States also has high mobile banking penetration rate at 53%. It is argued that the high penetration rate in developed countries is because of the high level of innovativeness and openness towards new technology (Chitungo & Munongo, 2013). For other nations, for instance in Africa, mobile banking comes as a necessity because of poor infrastructure, lack of political

stability and lack of bank branches (Popper, 2015). The mobile banking penetration figures for these nations include South Africa (57%), Kenya (49%), and Nigeria (43%)

Malaysia is a middle income nation within the Association of South East Asian Nations (ASEAN) region. Yet among her neighbours, figures show that Malaysia is relatively low in terms of mobile banking penetration. Malaysia's mobile banking penetration rate is 30%, compared with Thailand (43%), Singapore (52%), and Indonesia (77%), showing that Malaysia lags behind in terms of the use of mobile banking. Malaysia is at least better off than, or at least on a par, with the oil producing nations. For the United Arab Emirates, the mobile banking penetration is 34% while other oil producing nations, such as Kuwait, Qatar, and Saudi Arabia, have mobile banking penetration of 27%, 19%, and 15% respectively which is considerably low when compared to other regions of the world. In Saudi Arabia, it is argued that the introduction of mobile technology is quite late (Sohail & Al-Jabri, 2014). In Kuwait, mobile banking is still in its early state as it is still perceived to have bad user experience, accessibility and cannot meet customer needs

Until now, data on mobile banking in Islamic banks are very limited. At most, in the GCC countries, the percentage of Islamic bank customers using mobile banking is only 26%, which is lower than conventional bank customers, which is 38% (Ernst & Young, 2016). In Malaysia, the data on mobile banking in Islamic bank are also limited. Bank Islam Malaysia Berhad has 900,000 mobile banking users, which is just a fraction of Maybank, which consists of 4.6 million mobile banking users (Malayan Banking Berhad, 2018)

Malaysia's position as a hub for Islamic banking is not without criticism because there is an ongoing debate as to whether Islamic banking,

as practised by Malaysian banks, truly demonstrates the true spirit of Sharia principles. There are two categories of scholars – conservative and pragmatic (Hasan, 2011). Conservative scholars view Islamic banking solely on its legalistic side. For instance, Mohamad and Saravanamutu (2015) argue that Islamic banks, in many aspects, are similar to conventional banks, in terms of their operation. Khan (2010) argued that there are significant deviations between the ideals and the realities of Islamic banking. These arguments, although true, do not reflect the reality of implementing the ideals of Islamic banking. Pragmatic scholars believe that Islamic banking should not be confined to the legalistic view. Instead, pragmatic scholars argue that Islamic banking should take into consideration the objective of the Shariah, also known as the *maqasid al Shariah*. Sabirzyanov and Hashim (2015) argue that solely focussing on the Shariah aspects of Islamic banking is a narrow view of looking at Islamic banking because there is a more holistic view which incorporates the *maqasid al Shariah*. At least for Malaysia, Yusuf (2010) argues that it is fully Shariah compliant because of its interest free banking practice and justifiable prices. The conflicting views between the conservative and pragmatic scholars have affected the perception of consumers and the lack of face-to-face interaction is not helping.

Different regions of the world have received mobile banking for different reasons at different rates of penetration. In the developed regions in Europe for example, mobile banking is mainly for convenience purposes while in Africa mobile banking is a necessity. Malaysia, as a hub for Islamic banking, has been left behind relative to its neighbours in terms of mobile banking, which is a cause of concern. Furthermore, the debate between different scholars with regards to Shariah compliancy adds to the complexity of consumers' decisions to adopt mobile banking.

III. Literature Review

This section discusses different, relevant concepts that are associated with customers' intentions, attitudes, subjective norms and perceived behaviour control with its determinants which are described on the basis of Decomposed Theory of Planned Behaviour control (DTPB) that was refined by Taylor and Todd (1995) as is depicted in Figure 1. The DTPB was developed based on the Theory of Reasoned Action (TRA) by Fishbein (1967). The TRA was then further

expanded when Bandura (1977) developed Self Efficacy Theory (SET) which subsequently prompted Ajzen (1988) to add Perceived Behavioural Control (PBC) as one of the determinants of intentions. PBC, on a conceptual basis, is similar to self-efficacy. Both refer to the belief that the behaviour is under personal control but the difference lies in terms of operational where the PBC is often measured by the ease or difficulty of the behaviour while self-efficacy is measured by the confidence in the ability to perform the behaviour.

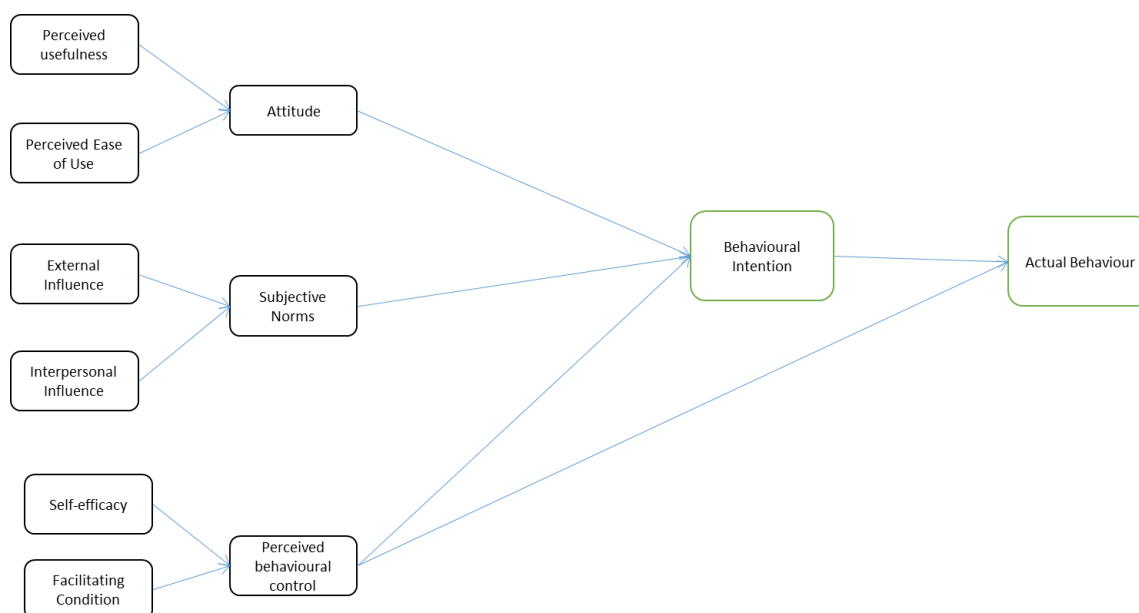


Figure 1

The original model of the Decomposed Theory of Planned Behaviour

Source: Taylor and Todd (1995)

Behavioural Intention

The initial definition of behavioural definition was in the context of TRA, which is the subjective likelihood of the performance of a behaviour (Fishbein & Ajzen, 1975). A more specific definition was developed as other intention-based theories were similarly developed; for instance, as the theory of planned behaviour was developed, behavioural intention was defined as a motivational factor that captures the magnitude of effort a person is willing to make in order to carry out a

behaviour (Ajzen, 1991). Next, in the context of the Technology Acceptance Model (TAM), the definition of behavioural intention becomes more technology specific, focusing on behavioural intentions to perform a technologically specific behaviour (Davis, Bagozzi, & Warshaw, 1989). Essentially these definitions are about the extent to which someone performs a particular behaviour

It is important to understand behavioural intention in mobile banking for banks to remain competitive and for society to benefit from the new opportunities which arise from the development of mobile banking. For the banking sector, the understanding of

behavioural intention is beneficial as a result of the rapid development of new technology in banking products (Zolait, 2010; Sohail & Al-Jabri, 2014). On the basis of these theories, there are several variables that are widely studied for a better understanding of behavioural intention; for instance, attitude, subjective norms, and perceived behavioural control.

Attitude

Attitude is one of the most basic variables to be proposed by the theory of reasoned action and other intention based theories to predict behavioural intentions (Zolait, 2010; Muñoz-Leiva, 2017; Tao & Fan, 2017). The realisation of a behaviour is the main difference between attitude and behavioural intention while dispositions are what attitude and behavioural intention have in common (Rummel, 1976). The definition of attitude provided by Ajzen (1989) captures the crux of the word that offers favourable or unfavourable responses to the intention in question. Later studies have adopted and adapted Ajzen's definition with some difference in semantics. For instance, Spears and Singh (2004), Lee (2009), Wessels and Drennan (2010), and Maduku (2013) adopted Ajzen's definition while Celik (2008), Eagly (2007), and Zolait (2010) also adapted Ajzen's definition by using other words such as "good" or "bad" instead of "favourable" or "unfavourable".

By and large, in studies that use the intention-based models, attitude has been established to have a positive relationship with intention. An Australian study carried out on m-banking postulated that a positive attitude towards m-banking leads to an increase in behavioural intentions (Wessels & Drennan, 2010). In Yemen, there is a positive

relationship between attitude and behavioural intention (Zolait, 2010)

Perceived Usefulness

The aim of developing mobile technology is to improve the efficiency of banking activities whether it is for checking account balances, making payments or for online shopping. Assessing the perceived usefulness is one way of measuring the improvement of banking activities. Davis, Bagozzi, and Warshaw (1989) were amongst the earliest to define perceived usefulness as a subjective evaluation of the extent to which using technology will enhance personal performance.

Conceptual research has been carried out in Malaysia on attitudes towards mobile banking, whereby it was hypothesised that there is a positive relationship between perceived usefulness and attitudes towards mobile banking (Krishanan, Khin, & Teng, 2015). Based on empirical research by Raza, Umer and Shah (2017) it has been suggested that, in Pakistan, perceived usefulness has a positive relationship with attitudes as well as behavioural intentions of using mobile banking. This indicates that mobile banking in Pakistan is useful. Studies that examine internet banking are also worthy of mention because internet banking is still relevant and it is the predecessor of mobile banking. For example, Wang et al. (2003) and Pikkarainen et al. (2004) suggested that there is a positive relationship between perceived usefulness and attitude.

Perceived Ease of Use

A lay person who has little knowledge of technology may not find mobile banking easy to use since it has been developed by technology experts and professionals. It is believed that technology is only useful when it

is easy to use (Davis et al., 1989). Hence the perceived ease of use is crucial in assessing the extent to which mobile banking technology is user friendly. The definition provided by Davis et al., (1989) has been widely replicated and improved, which is the degree to which a person expects that the usage of mobile banking is effortless. What differentiates perceived ease of use from perceived usefulness is that the perceived ease of use emphasises the technology while perceived usefulness gives emphasis on how the technology affects one's job or tasks.

Studies on the relationship between perceived ease of use and attitude are well established and straightforward. As a predecessor of mobile banking that was computer technology, Davis et al. (1989) postulated that there is a positive relationship between perceived ease of use and attitude. This shows that users are more interested in using technology when they think that it is easy to use. As internet technology has developed, Wang et al. (2003) and Celik et al. (2008) suggested positive relationships between perceived ease of use and attitude in the context of internet banking. However there is also literature, such as Yee-Loong Chong et al (2010) and Ernovianti et al. (2012), that suggests that there is no significant relationship between these two variables. One possible explanation for this non-significance is that the sample is already versed in using the technology (Ernovianti et al., 2008).

Religiosity

Religiosity is an important cultural factor to study because it is one of the most universal and persuasive elements of culture that has significant influence towards peoples' attitudes (Khraim, 2010). For instance, people who adhere to most Abrahamic faiths traditionally will have some negative attitude

towards things that are considered impure such as objects related to swine. Certain actions such as fornication, adultery, profiting from usury also render negative attitudes because of their prohibition in certain religions. Early modern publications of religiosity were from a Judeo-Christian perspective and included comprehensive and simple religiosity measurements. Religiosity that consists of experiential, ritualistic, ideological and consequential aspects by Glock (1962) is one of the early comprehensive ones. On the other hand Church attendance and church contributions by Azzi, Corry and Ronald (1975) as well as Mindel and Voughan (1978) with their organisational and private religiosities are examples of the simpler ones.

Later publications on religiosity included religiosity for other religions, namely Islam. Krauss, Hamzah and Rumaya (2005) developed the Muslim Religiosity Personality Index (MRPI) which is a comprehensive Muslim religiosity that measures religiosity in most aspects of Muslim life in terms of their religious and daily rituals. The MRPI, although comprehensive, is still general. There are ;for instance Tamney (1979) discusses religiosity in terms of praying, fasting and almsgiving.

Amin et al. (2011), Jamshidi and Hussin (2016), and Aziz et al. (2019) developed a more specific measurement of religiosity that is tailored to measure religiosity in terms of people's financial practice, specifically in terms of their practice on usury (riba), uncertain or unclear contracts (gharar) and other areas that are considered forbidden in Islam. The development of a more specific measurement of religiosity is a result of some of the inconsistencies between mobile banking provided by Islamic banks and the electronic commercial sites that are not necessarily in compliance with the Shariah. Furthermore, the

virtual nature of mobile banking, which includes lack of physical interaction between the buyer, seller and the item, may contribute to customer's doubts towards mobile banking. According to Yeh and Li (2009), without examining an item to be bought, that is by looking and touching, customers do not feel safe enough to perform any purchase. This may also occur among Shariah-conscious customers who are potential users of mobile banking for m-commerce transactions (Sarker, 1999). Without the confidence to shop online via mobile banking, the use of mobile banking is limited to checking the account balance and bill payments.

Although religiosity in general has been measured extensively over half a century,

specific measurement of religiosity, in particular in the context of banking technology in Islamic banks, is still relatively understudied. A preview of Sharia-compliant aspects of mobile banking was demonstrated by a study led by Ali et al. (2018) which suggested that in the context of Islamic banking in Malaysia, there are positive effects of religiosity towards attitudes. This was also found by Jamshidi and Hussin (2016) in Malaysia's Islamic credit card usage in e-commerce. Based on this evidence, the same outcome would apply in the context of mobile banking in Islamic banking institutions in Malaysia

Table 1

Selected literature that has studied religiosity

Religiosity						
Glock (1962)	Azzi, Corry & Ronald (1975)	Mindel and Vaughan (1978)	Tamney (1979)	Krauss, Hamzah and Rumaya (2005)	Shah Alam, Mohd and Hisham (2011)	Aziz et al. (2018)
<ul style="list-style-type: none"> •Experiential •Ritualistic •Ideological •Consequential 	<ul style="list-style-type: none"> •Church Attendance •Financial contribution 	<ul style="list-style-type: none"> •Organisational religiosity •Private religiosity 	<ul style="list-style-type: none"> •Praying •Fasting •Almsgiving 	Muslim Religiosity Personality Scale (MRPI) <ul style="list-style-type: none"> •Islamic worldview •Religious personality 	Selected Muslim religious practice namely <ul style="list-style-type: none"> •Prayers •Abstaining from Haram things 	Addresses banking relevance <ul style="list-style-type: none"> •Riba •Gharar •Fraud

Perceived Lifestyle

Compatibility of individual lifestyle is argued to make it possible for a modern invention e.g. mobile banking, to be widely used (Tan & Teo, 2000). Early discussion of lifestyle revolves around the Christian lifestyle, living a humble life and simplicity (Schwarz,

1979). Lifestyle has been historically a part of religion until secularisation (Ziad Esa, Ahmad Fauzi, & Folmer, 2014) hence lifestyle is argued to be disenchanted from religion (Porter, 1973). In addition, the early discussion of lifestyle also included social class, in terms of the medieval and

modernfeudal system (Cockerham, Abel, & Lüschen, 1993; Bogenhold, 2001). In modern times, people's lifestyle revolves around mobile technology(Schierz, Schilke, & Wirtz, 2010); for instance the useof Google as an effective "search engine" for anything such as cooking recipes and revising for exams. Another example is the use of GPS (global positioning system) that is easily available for anyone that has a smartphone so that people can navigate in their travels.

Chawla and Joshi (2017) explained that lifestyle has demonstrated some influence towards internet banking.The samples that they used were mostly engineering graduates that use the internet as part of their lifestyle. Empirical results suggested that these

graduates are likely to have positive attitudes towards mobile banking. A subsequent study in the context of mobile payments in Portugal by Pancho and Afonso (2018) suggested that perceived lifestyle has a positive relationship with the intention to re-use. Lifestyle can also be a moderating variable; for instance Yu and Li (2015) suggested that lifestyle has a significant moderating effect towards usage barriers in mobile banking in Thailand and Taiwan. The present research however assesses lifestyle as a determinant instead of a moderator following the study by Chawla and Joshi (2017). Mobile technology is the most recent trend; therefore it is hypothesised that, when a person uses mobile technology as part of their lifestyle, it is more likely that the person will use mobile banking.

Table 2

Selected literature that has studied lifestyle

Perceived lifestyle			
Schwartz (1979) Amerson (1979)	Cockerham, Abel, and Luschen (1993)	Schierz (2010)	Chawla and Joshi (2018)
<ul style="list-style-type: none"> •Christian lifestyle •Simplicity 	Addresses lifestyle from early sociologists. <ul style="list-style-type: none"> •Social- class •Socio economic status 	<ul style="list-style-type: none"> •Mobile lifestyle •Individual mobility 	Addresses M-Banking related lifestyle <ul style="list-style-type: none"> •M-banking compatibility •Financial management •Self-image •occupation

Personal Innovativeness

Different people have different tendencies when adopting new technologies. Before the development of Information Technology (IT), much of the research on innovativeness was in agriculture. Amongst the earliest examples are Marsh and Coleman (1956) and Flinn (1970)who studied farmers' acceptance of new technologies such as artificial breeding, calf vaccination and truck farming.Nowadays, in the IT age, there are several ways in which people adopt

technology. At its most basic, people adopt technologies out of eagerness and excitement (Chitungo & Munongo, 2013). According to Hanafizadeh et al. (2014) the diffusion of technology differs based on the development levels of a country whereby people from a less developed country are more open for new technology assimilation. This means peoplein impoverished countries such as countries in sub-Saharan Africa. The second argument is thatpeople who are inherently innovative are argued to have a relatively higher tendency to adopt new technologies (Agarwal & Prasad,

1998). This is also known as technology readiness, where personal innovativeness is the inherent willingness to try out and embrace new technology to fulfil goals (Rao & Troshani, 2007). The third argument is linked to innovation diffusion theory which is essentially a process where innovation is communicated through certain networks over time (Rogers, 1995). There are five different levels of personal innovativeness classified by innovation diffusion theory, the highest being the innovators and the lowest known as laggards.

There are several studies that have examined the relationship between personal innovativeness and attitude towards new technologies. A notable study is for a sample

of rural communities in Zimbabwe where personal innovativeness has a significant effect on the attitude towards mobile banking (Chitungo & Munongo, 2013). Looking at the impoverished economic conditions of Zimbabwe, it is easy to see that the people of Zimbabwe are intrigued and eager for new technologies. Conversely, in developed America, in the context of American students, there is an inverse relationship between consumer innovativeness and adoption which also shows that, considering that the United States is a more advanced economy, it can be seen that innovation for the Americans is not as interesting as for the people of Zimbabwe (Sarel & Marmorstein, 2007).

Table 3

Selected literature that has studies of personal innovativeness

Personal Innovativeness				
Marsh and Coleman (1956)	Flinn (1970)	Midgley and Dowling (1978)	Agarwal and Prasad (1998)	Hanafizadeh et al. (2014)
Agricultural related practices •Artificial breeding •Calf vaccination •Soil testing	Agricultural related practices Among truck growers	•Inherent innovativeness •Actualised innovativeness	Innovativeness in IT	People who are from less developed countries are more eager towards mobile banking

Subjective Norms

A relatively new technology needs more than feelings, beliefs and attitude to trigger an intention to perform an action towards it. Davis et al. (1989) argue that triggering an intention needs a mandate and is, in some cases, contrary to a person's belief and feelings. According to Hofstede (1984), Malaysia is categorised as collectivist culture which means that social norms are highly valued. Subjective norms are defined as a person's perception that most people who are important

to that person should or should not perform a behaviour (Fishbein & Ajzen, 1975). There are two distinct influences of subjective norms; interpersonal influence and external influence (Bhattacharjee, 2000a). Taylor and Todd (1995) highlighted that the reason for these two distinct influences is that these two distinct groups may have different views of technology and that these groups may cancel each other out resulting in the false insignificance of influence between subjective norms towards intention.

For most of the literature there are positive relationships between subjective norms and behavioural intentions. (Gopi & Ramayah, 2007; Amin, Abdul-Rahman, & Abdul-Razak, 2009; Amin et al., 2011). Ramayah et al. (2009) suggest that, among the reasons for the positive relationship between subjective norms and behavioural intention, is that these studies were carried out in a Malaysian context which strengthens Hofstede's Malaysian's collectivist culture thesis (1984). However it is important to note that not all technologies require their users to interact with others e.g. online video services (Truong, 2009) but mobile banking involves two-way interaction from buyers to sellers

Interpersonal Influence

Bhattacharjee (2000) defines interpersonal influence as the influence of a person already known to a person such as family members, friends, colleagues and superiors. Filial piety can certainly influence technology usage considering Malaysia as an Asian cultural melting pot (Lim, 2008). This means that family, especially parents, can greatly influence their children to adopt mobile banking.

Most of the studies in the literature suggest that there are positive relationships between interpersonal influence and subjective norms except for one exception. A study carried out by Kazemi et al. (2013) is one of the few studies that resembles the present study, postulating a positive relationship between interpersonal influence and subjective norms in the context of mobile banking in Isfahan Iran.

Taking into account the cultural diversity of Malaysia, Ting et al. (2016) examined mobile payment across different races of Malaysia. Empirical results showed that there is a positive relationship between subjective norms and behavioural intentions.

In particular for the Malays, the subjective norms play an important part in terms of the intention to adopt mobile payments. Hung, Ku and Chang (2003) as well as Zolait (2010) also posited positive relationships between interpersonal influence and subjective norms but in a different context, which are WAP services in Taiwan and internet banking in Yemen respectively. However, there are special circumstances when a technology is pre-installed or users do not have many choices to make, which makes interpersonal influence irrelevant. Such circumstances have been found in Tao and Fan (2017) in their study on e-toll collection devices which are already pre-installed and there is not much competition. Empirical evidence by Tao and Fan (2017) suggest that there is no significant relationship between interpersonal influence and subjective norms. Other than special circumstances, namely the nature of the product or the lack of competition, it should be reasonable to anticipate that the relationship between interpersonal influence and subjective norms should be a positive one.

External Influence

External influence refers to any non-personal information source that a person knows such as expert opinions, mass media, reports and other information sources that can affect a person's decisions (Bhattacharjee, 2000). The mass media, for instance, can increase the pressure to conform to the norms of society to use a certain technology by advertising (Abrahamson, Rosenkopf, & Abrahamson, 1993).

The nearest study related to mobile banking in Malaysia is on mobile payments by Ting et al. (2016) where the findings indicate that there is a positive relationship between external influence and subjective norms. Other studies are more specific when it comes to external influence. For instance Hussein,

Zolait and Sulaiman (2009) used the term 'mass media norm' instead of external influence. Empirical results suggest that there is a positive relationship between mass media norms and subjective norms but the strength of the relationship is not as strong as interpersonal influence. Malaysia's collective society's mass media is well developed so it is quite difficult to project whether mass media or interpersonal influence has greater significance towards subjective norms.

Religious Authority Influence

Adapting the definition given by Bhattacharjee (2000) for interpersonal influence and external influence, religious authority influence is defined as an information source from a religious authority that a person knows such as the ulama, the local religious ustaz or Muslim religious television personalities. The influence of religious authority has been highlighted by Fauziah, Ramayah and Abdul Razak (2008) in their study on intentions to take up diminishing partnership home financing.

The historical influence of religious academics has been significant in shaping every facet of society (Rasheed, 2007). The Byzantine example discussed by Schmemmann

Table 4

Selected literature that has studied religious authority influence

Religious authority influence				
Schmemmann (1954)	Fogel (1960)	Lapidus (1996)	Rasheed (2007)	Nuruddeen (2013)
•Byzantine Orthodox Theocracy when religious authority governs every aspects of society	•Colonial theocracy in America •Specific discussion in the American press	Muslim	Muslim theocracy in ancient India •Politics •Education	•The role of Ulama in mobilising philanthropy

(1954) illustrates the influence of religious priests in every aspect of society (Table 4). The American example is another example of the influence of religious authorities in the early formation of the United States of America.

The Muslim example of an ancient religious authority that governs every aspect of a state can be seen in the works of Lapidus (1996) in his study on the Ottoman empire. However nowadays, the influence of ulama is limited in some areas and in some countries, namely politics, education system and conflict resolutions (Rasheed, 2007; Hendri, 2016). In Nigeria, the role of ulama has successfully mobilised philanthropy (Nuruddeen, 2013).

The literature which is the closest to this variable can be seen in those studies that have been mentioned in interpersonal influence and external influence. The majority of these studies suggested a positive relationship between interpersonal influence and external influence towards subjective norms (Zolait, 2010; Hung, Ku, & Chang, 2015). For the context of this study, it is expected that the influence of religious authority will have a positive impact towards subjective norms.

Perceived Behavioural Control

Perceived behavioural control has been introduced to cover the non-volitional behaviour for predicting behavioural intentions and actual behaviour. It refers to the extent to which a person believes he or she can perform a certain behaviour successfully (Ajzen, 1985). There are two main determinants that influence perceived behavioural control; self-efficacy and facilitating conditions (Taylor & Todd, 1995).

A glimpse as to how mobile banking technology would fare in a progressive Muslim nation can be seen in a study by Kazemi et al. (2013) in the context of Isfahan Iran. Empirical results suggested that there is a positive relationship between perceived behavioural control and behavioural intention. The Malaysian mobile payment system studied by Ting et al. (2016) also suggested similar results. A positive relationship between perceived behavioural control and intention was also found in a non-banking based study. Therefore, based on the results that were suggested by different studies, banking and non-banking alike, it is expected that similar results will be suggested in the context of Malaysian mobile banking using Islamic banks.

Self-efficacy

Self-efficacy is the innate ability to succeed in accomplishing something (Bandura, 1997). Technologically savvy individuals characteristically incline to believe that mobile banking can be used successfully (Balabanoff, 2014). There is a subtle difference between self-efficacy and perceived ease of use, where self-efficacy is about oneself while perceived ease of use is about the technology itself. Ting et al.'s study (2016) on mobile payment is a good reference when it comes to self-efficacy. This suggested

that there is a positive relationship between self-efficacy and perceived behavioural control. Similar results were also shown for the context of mobile banking in Iran and mobile coupons in Taiwan (Hsu, Wang, & Wen, 2006; Kazemi et al., 2013). On the basis of these studies, it is reasonable to extrapolate that there is a positive relationship between self-efficacy and perceived behavioural control for mobile banking in Malaysian Islamic banks

Facilitating Conditions

Facilitating conditions is a person's perceived availability of resources that can facilitate in using a technology (Venkatesh et al. 2003). More specifically the resources that facilitate refer to access to smartphones, stable internet connection, and financial resources (Lu et al., 2008; Venkatesh, 2012). Facilitating conditions focus on external notions rather than self-efficacy, which focuses on internal ability. Hung, Chang and Yu (2006) and Zolait (2010) defined facilitating conditions as external resources and constraints. Empirical results for the Isfahan's example suggested that there is a positive relationship between facilitating conditions and perceived behavioural control. This indicates that improvements in the facilities would also improve the perceived behavioural control. However, for the Taiwanese example, the relationship between facilitating conditions and perceived behavioural control is insignificant (Hsu et al., 2006). What these results show is that improvements of the facilities or infrastructure would not have any impact on perceived behavioural control because they are already adequate. The adequacy of the Taiwanese facilities for mobile technology is consistent with the Taiwanese advanced economic development as compared to Iran where there are economic sanctions. Nevertheless, for the

Malaysian example, it is projected that better access to favourable facilitating conditions such as mobile banking online tutorial support chat and demonstrations would have better

impact on the perceived behavioural control and, ultimately, the intention to use mobile banking.

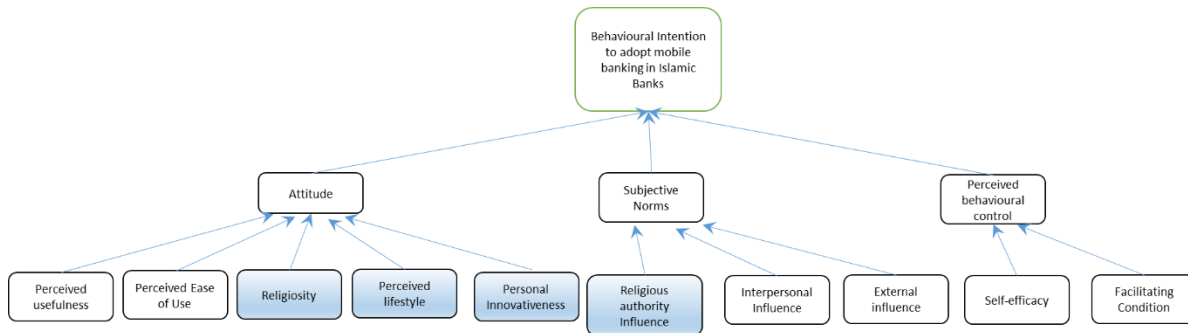


Figure 2

The proposed theoretical framework

Source: Taylor and Todd (1995), Chitungo and Munongo (2013), and Chawla and Joshi (2017)

IV. Research Objectives

The issue that this research has addressed is the asymmetry of the penetration rate between Malaysia's Islamic banking and mobile banking. The importance of the issue comes from the position of Malaysia as one of the world's prominent Islamic banking centres. Addressing this issue is essential to enhance competitiveness against local and foreign banks. In the Malaysian case, addressing the adequacy of technology alone is insufficient, as researchers must study consumer behaviour towards mobile technology in the context of Islamic banks. This research aims to examine the determinants of the intention to use mobile banking among Islamic bank customers using the Decomposed Theory of Planned Behaviour. In particular, this research is interested in the effects of religiosity, lifestyle, personal innovativeness and the influence of religious authority towards mobile banking. The research objectives are as follows.

Research Objective 1: To identify the determinants of behavioural intentions, attitudes, subjective norms and perceived behavioural control as understood by Islamic bank customers.

Research Objective 2: To identify both the least and most important determinants of behavioural intentions, attitudes, subjective norms and perceived behavioural control as perceived by Islamic bank customers

Research Objective 3: To identify the relationships between attitudes, subjective norms, perceived behavioural control and behavioural intentions as perceived by Islamic bank customers

V. Purpose of the Study

This research is a study of religiosity, perceived lifestyle, personal innovativeness and religious authority influence on top of the variables in the Decomposed Theory of Planned Behaviour such as attitude, subjective norms, perceived behavioural control and their respective determinants towards the intentions of mobile banking among Islamic banking customers.

VI. Research Methods

This study uses literature research as its main method. The literature that is reviewed includes Islamic banking, mobile technology and mobile banking. Other than academic journals and newspaper articles, the secondary data were

retrieved from the annual reports released by Ernst and Young, and Bank Negara Malaysia.

VII. Conclusion

The conceptual model proposed by this paper applies the Decomposed Theory of Planned Behaviour (DTPB) to examine the factors that affect behavioural intentions to use mobile banking among Islamic bank customers. Other factors such as religiosity, as in the Sharia-compliant aspect, the perceived lifestyle and the personal innovativeness have been added to the existing variables in the original DTPB model. Future studies should work on empirically examining the proposed variables using questionnaires as instruments. Analysis can be done using SPSS as well as structural equations modelling.

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