FACTORS INFLUENCE ON MOBILE BANKING ADOPTION: CASE FROM NON-BANKING FINANCIAL INSTITUTE SECTOR IN SRI LANAKA

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ABSTRACT

Information technology has become the most convenient service delivery channel in the financial sector. In the Sri Lankan financial context, most banks and financial institutions invest substantially in Fintech solutions comprising internet banking, Mobile Banking (M-banking), and electronic payment systems. Customers' utilization of M-banking services, however, remains lower in comparison to certain emerging and developed nations.Thus, this study explores the significant factors influencing the intention towards using M-banking among Sri Lankan customers in a selected leading finance company in Sri Lanka. The research model was built on the Theory of Planned Behavior (TPB). Six independent variables comprising the ease of use, perceived usefulness, perceived risk, subjective norms, compatibility, and perceived behavioural controls were included in the research model. The intention towards using M banking was considered a dependent variable. Data were collected online from a sample of 250 customers from the Southern region and 213 valid responses were received. Multiple regression analysis was used to test the hypotheses. Findings revealed that five out of six hypotheses were supported. Five factors, namely perceived ease of use, perceived usefulness, compatibility, perceived risk, and perceived behavioural control, were found as significant drivers of intention towards using M-banking adoption. This study contributes by providing evidence with a developing context, and research findings contributed to the existing literature by providing insights on the determinants of intention towards using M-banking. Furthermore, for a developing nation like Sri Lanka, this research gave extensive knowledge in the realm of technology adoption literature.

Keywords: *Theory of Planed behaviour, Intention to use M-banking, Sri Lanka*

1. Introduction

Digital business transformation plays a vital role in the present business context throughout the world (Sayabek & Suieubayeva, 2020). Many businesses are adopting technology with the aim of increasing revenue, cost reduction, and improving customer service (Attaran, 2020). Digital transformation is widely spread to all industries, including financial sector, as revealed by Digital Business Survey in 2018 (IDG International Publishing Services, 2018). The financial sector performed well through technology by providing a variety of financial solutions comprising electronic payment solutions (Oyelami et al., 2020), internet banking (Kumar et al.,2020), mobile wallets (Mombeuil, 2020), online trading to customers (Rajan & Davidson, 2020). Mobile banking, among them, enables customers to perform banking transactions through electronic applications rather visiting branches (Jebarajakirthy & Shankar, 2021).

There are 26 specialized commercial banks, 6 specialized banks, and 42 licensed financial businesses in Sri Lanka (Central Bank of Sri Lanka, 2020). Almost all banks have previously used mobile banking solutions as a differentiating strategy in order to successfully deliver financial services to clients (Ravichandran & Harshani, 2016). As of now, banking firms are looking into providing convenient platforms beyond online banking systems due to certain limitations associated with online banking systems (Premarathne & Gunatilake, 2016). Online banking systems are limited to bank secured websites, and there are limited functions compared to mobile banking (Premarathne & Gunatilake, 2016). Though the awareness on mobile banking among customers has been increased, some customers do not use mobile banking as banking firms expected (Raza, 2011).

At the end of 2018, around 5.1 billion individuals, or 7% of the world population, had enrolled to mobile phone services (Jan Stryjak, 2019). Furthermore, one billion additional subscribers have been added in the last four years, representing a 5% annual growth rate (Stryjak, 2019). Parallel to increasing smartphone adoption globally, mobile banking applications are also expected to increase (Lund, 2020). However, certain studies discovered that though mobile banking application is well known in certain countries around the world, they were not utilised generally as excepted (Lund, 2020).

Several studies have been conducted in industrialized nations to investigate the factors that influence mobile banking usage (Boonsiritomachai, & Pitchayadejanant, 2017; Changchit et al.,2018; Senali, 2017; Khadka, 2018). In terms of the available

literature on the factors influencing mobile banking adoption, it is obvious that the results are inconclusive, and further study is required (Krishanan et al., 2017).

During the last couple of years there has been a significant emphasis placed on mobile banking activities by majority of banks in Sri Lanka (Central Bank of Sri Lanka [CBSL], 2019). As a result, consumer uptake and usage may be radically altered, and current research have not fully examined it in the Sri Lanka setting. Furthermore, mobile banking adoption in Sri Lanka remains low when compared to developed and emerging nations in the area (Arandara, & Gunasekera, 2020). Moreover, Premarathne and Gunathilake (2016) contend that despite widespread acceptance of broad technical improvements like as cellphone and internet usage, mobile banking adoption levels in Sri Lanka remain rather low.

Determinants of user acceptance of mobile banking have been identified using different models (Boonsiritomachai, & Pitchayadejanant, 2017; Suhartanto et al., 2019; Dwivedi, & Mir, 2019). However, in Sri Lanka context, there is an only hand full of empirical studies on user acceptance of mobile banking has been performed. Moreover, the findings of developed countries cannot be generalised to a developing country like Sri Lanka, as there are notable differences between education level (Sharma et al., 2017), cultural beliefs and values (Cirera, & Maloney, 2017) and economic and technological situations (Bell & Pavitt,1993) compared to the developed world. As a result, it is critical to determine the variables driving mobile banking acceptability in Sri Lanka. Thus, the goal of this study is to determine the major elements that drove client M-banking adoption in the Sri Lankan setting, with a focus on the ABC Company PLC.

1.1 Research Problem

In Sri Lanka, the mobile telecommunications business has grown much faster than other industries during the previous two decades (Jayasuriya & John, 2000). According to the following CBSL (Central Bank of Sri Lanka, 2018) social data (Table 1), mobile phone connections dominate the telecommunications industry, with 1436 mobile phones per 1000 persons. Sri Lanka is ranked second in South Asia, according to this survey.

Table 1: Social Indicators of SAARC Countries

Indicator	Ref. year	*Sri Lanka*	Afganisthan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan
Internet subscription- (Per 100 people)	2013	*27.5*	11	18.0	42.0	30	59	20	16
Telephones- (Per 1000 people- Main line)	2016	*12*	3	5	27	19	58	30	16
Telephones- (Per 1000 people - Mobile)	2016	*1436*	660	779	888	870	2230	1117	714

Source: Socio economic data 2018 - Central Bank of Sri Lanka

The number of mobile phones and mobile accounts in Sri Lanka currently exceeds the population due to the rapid expansion of wireless technology over the previous two decades (Perera & Wattegama, 2019). Furthermore, mobile service providers provide novel and diverse services to grow their network and address industry shortages (Perera & Wattegama, 2019). Furthermore, mobile phones have created a plethora of new business options, such as mobile banking, and have evolved into a platform for extending commercial transactions through the expansion of distant contact in a very easy manner (Perera & Wattegama, 2019). However, it is surprising that though mobile phone users and internet connectivity in the Sri Lankan context have grown significantly over the years, M-banking usage does not increase in parallel.

ABC Finance PLC is a prominent financial solution provider in Sri Lanka, offering a wide range of financial solutions with a variety of innovations. The company invests a significant amount in mobile banking with the aim of ensuring better customer service and profitability. Table 2 below shows the relationship between numbers of savings accounts as opposed to a number of registered customers for mobile banking related to ABC Finance PLC. As illustrated in Table 2, 467,470 saving accounts belong to ABC Finance PLC as at 31st of March 2019. However, only 14,904 account holders, which was only 3.2% of the total account base, were registered for Mobile Banking.

Table 2 : Mobile Banking registered customers

Factors	As at 31st March 2019
Number of savings accounts	467,740
Number of registered customers for mobile banking	14,904
Mobile banking customer base	3.2 %

Source: Internal management information from ABC Finance Company (2019)

As illustrated in Table 3 and Figure 1, user registration for M-Banking and transaction count have increased, but it was not at the expected level as explained by the management. It was discovered that the number of mobile banking transactions is minimal in comparison to the overall number of transactions. It is surprising that why the number of mobile users' registration and transactions remains at such a low level though mobile phone users and internet connectivity in the Sri Lankan context has been grown significantly over the years.

Table 3 Number of transaction and M-banking users

Year	No of Transaction	Users Registered
2016	243,216	3,860
2017	245,496	7,256
2018	269,400	10,340
2019	295,044	14,904

Source: Internal management information from ABC Finance Company (2019)

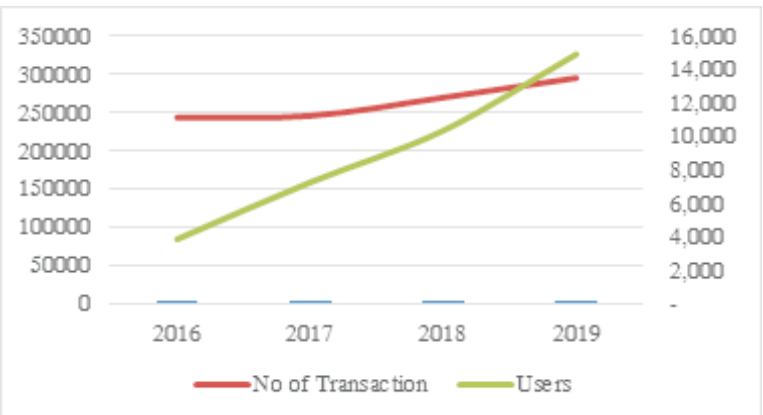

Figure 1. ***Transaction growth and user registration***
Source: Internal management information from ABC Finance Company (2019)

Thus, considering this scenario, this study is expecting to investigate what would be the reasons for this gap and consequently to identify the implications. Thus, the research topic addressed in this study is what factors influence m-banking intention with specific reference to the ABC Company PLC.

2. Related Literature

2.1 Mobile Banking

In the present day, mobile banking is the most convenient banking platform. Various authors give many definitions in different perspectives, and Table 4 elaborates them in chronological order.

Table 4: Definitions for M- banking

Author	Definition
Ravichandran and Harshani (2016)	"A channel whereby the customer interacts with a bank via mobile device, such as mobile phone and Personal Digital Assistant (PDA)"
Shankar (2016)	"M-banking is a kind of m-commerce in which bank customers interact with bank through mobile and enjoying all facilities and services provided by banks via mobile applications."
Sakala and Phiri (2019)	"An application that has resulted from the widespread use of computer technologies that are shaping all aspects of everyday life."

Many authors contend that M-banking operates in a digital platform to deliver user convenient banking experiences. M banking is facilitated through SMS, IVR, WAP,tc (Shankar, 2016). Mobile banking is financial innovation which is facilitated to carry out financial services through information technology. M-banking is classified into two types: bank-led and mobile service provider-led. The bank-led approach enables banking clients to conduct their banking activities via M-bank solutions, whereas the mobile service provider-led model enables activities via mobile service providers (Ex: mCash e-wallet, Virtual wallets) (Bhatt & Bhatt, 2015). Reviewing extant literature, it can be concluded that there is no universally accepted definition for mobile banking. This research describes M Banking as a digital platform meant to accomplish banking tasks in a convenient manner rather than walking into the bank, according to literature on M banking.

2.2 Evolution of Mobile Banking

SMS banking services were the first mobile banking services established in the late 1990s and early 2000s. When the internet and smartphones began to gain popularity, few banks introduced simple banking services on their websites like viewing accounts, checking balances, and Automated Teller Machines (ATM) (Cleveland, 2016). At the initial stage of mobile banking, it was limited to personal computers with less thoughts of delivering the service through laptops, notebooks, smartphones, wristwatch, or any convenient technology prevalent today. With the potential of emerging technological improvements in the recent decade, it was simple to make consumer convenience in M-banking with the possibilities of mobile banking. Throughout the years, customers moved to smartphones with adopting new features that simplifying users' lives and demanding convenience banking services (Cleveland, 2016).

2.3 Determinants of Mobile Banking Adoption

An extensive literature review was carried covering both global and local (Sri Lankan) contextual studies to identify the determinants of Mobile Banking Adoption. It was clear that the literature study on the factors influencing mobile banking adoption had been examined and studied for decades, until lately.After reviewing the previous literature, it was evident that the findings of the research studies had similarities and inconsistencies.

2.4 Theories of Technology Adoption

The current literature on the intention to use mobile banking was reviewed in order to select the most appropriate theory for designing a research model and developing the hypothesis. Because mobile banking is regarded a technical innovation, the literature on IT adoption/acceptance as well as technological innovation adoption/diffusion was investigated. Many research that study predictors of the intention to adopt/adapt/accept mobile banking employ technology acceptance theories. Many models for understanding and forecasting user adoption of new technologies have been presented. The Technology Acceptance Model (TAM) (Davis et al.,1989; Davis, 1989), The Unified Theory of Acceptance and Use (UTAUT) (Venkatesh et al., 2003) has received considerable attention for forecasting new technology uptake by users.

As M-banking also consider as technology related product theses technology adoption theories can be applied to explain M -banking adoption behaviour too. However, these theories have different explanations power in explaining the technological adoption intention. Since the model includes significant components, the current study used the theory of planned behavior to explain M- banking adoption intention. Many research have employed this theory, confirming its relevance to the M-banking situation.

Previous research has largely used the idea of planned behavior to predict and explain individual behavior in adopting various technologically connected phenomeon (Ajzen, 2020): blockchain adoption (Kamble, Gunasekaran, & Arha, 2019); electric vehicle adoption (Haustein, & Jensen, 2018); plagiarism technology adoption (Uzun, & Kilis, 2020); aquaculture technology adoption (Kumar, Engle, & Tucker, 2018); social meida use of transactions (Hansen, Saridakis, & Benson, 2018); Adoption of Internet of Things (Mital, Chang, Choudhary, Papa, & Pani, 2018). The theory of planned behavior is also commonly employed in anticipating human and organizational behavior when it comes to adopting various technology-supported banking applications, such as automated teller machine adoption (Hota, & Mishra, 2018), intenent banking (Hassan, Iqbal, & Iqbal, 2018), mobile banking (Obaid, 2021; Aboelmaged, & Gebba, 2013), tele banking (Nayanajith, Damunupola, & Pastor, 2020). Several studies were conduted to predict human behaviour of mobile banking adoption by extending the theory of planned behaviour adding some additional vairables. The present study also focused on extending the theory pf planned bahviour adding two additional veriables namely compatibility and perceived risk which is more applicable to the mobile banking context.

2.5 Research Model

Based on the theory of planned behavior, the current study constructed the following research model. The study model was developed using the theory of planned behavior, and compatibility and perceived risk were included to the research model to analyze M-banking adoption in relation to ABC Finance PLC.

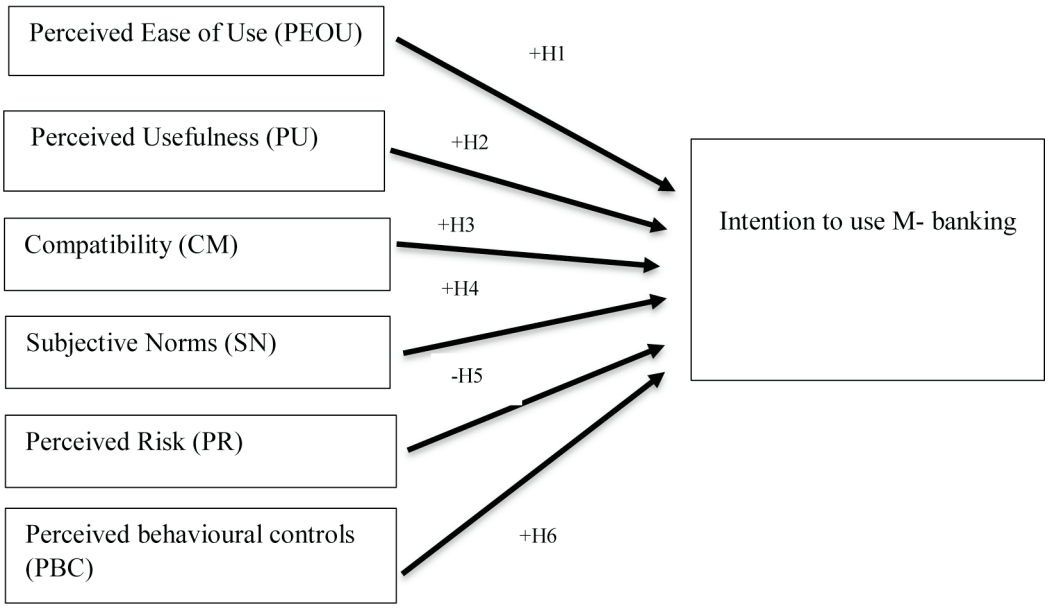

Figure 2: Research Model

2.6 Hypotheses

Perceived ease of use

"The degree to which a person believes that using a certain technology will need no physical or mental effort is referred to as perceived ease of use" (PEOU) (Davis, 1989). Potential adopters seek to make a trade-off between the advantages of the innovation and the complications of employing it before making an innovation adoption choice (Premkumar & Potter, 1995). The intricacy of technology creates increased ambiguity among potential adopters, particularly when making innovation adoption decisions (Lin, 2011). Because M-banking apps are integrated with IT, potential consumers may experience increased degrees of uncertainty and complexity. To utilize or operate IT-related developments, proper knowledge and skills are required. Such innovations need extensive IT expertise and experience to function (Dunivan, 1991). Individuals must deal with specific IT-related procedures in order to work effectively with M-banking. Individuals must be prepared with basic to high levels of IT knowledge and abilities to handle these responsibilities. When potential adopters perceive that learning, utilizing, and operating M-banking software is a difficult task, this might lead to unfavorable attitudes and, eventually, discouragement from adopting it. (Normalini et al.,2012; Raza et al., 2017). Employees, on the other hand, acquire a good opinion when they think that it is simple to grasp, learn, and utilize. As a result, the following hypothesis is proposed.

H1: *Perceived Ease of Use (PEOU) have a positive effect on intention to use M - banking.*

Perceived Usefulness

"The extent to which a person believes that using a certain system will increase his or her job performance is referred to as perceived usefulness" (PU) (Davis, 1989). Individuals want to employ innovations to close performance gaps and shortcomings or to capitalize on new opportunities (Premkumar & Potter, 1995). Because M-banking is regarded an innovation, it should be able to handle the performance difficulties that clients have when interacting with a manual procedure. Because M-banking apps are tied to IT, the majority of the good and bad consequences are associated with M-banking IT adoption (Mutahar et al., 2018).

M-banking enables customers to enhance the effectiveness and efficiency of accomplishing banking transactions by reducing paperwork and simplifying the processes. Moreover, M-banking adoption helps to reduce environmental, social, and economic waste. Environmental waste can be reduced through the minimised use of papers, files, and staples; meanwhile, social waste is reduced by minimising the processing time involved in searching for documents and making decisions (Yusoff et al., 2015). On the other side, undesirable repercussions such as invasion of personal privacy may occur (Wen, 2013); distancing the function from each other (Francis et al., 2014) might generate. Based on this reasoning, hypothesis 2 is proposed.

H2: *Perceived Usefulness (PU) have a positive effect on intention to use M Banking.*
Compatibility

Compatibility is an essential part of innovation since it refers to how well a new service fits with the consumers' current values, beliefs, prior experiences, and habits (Chen, 2008). This explains that when individuals believe that the innovation (M-banking) is incompatible with individual values and norms, they will not use it. M-banking is related with technological applications. However, individuals who do not consistently value technological applications may deny using M-banking (Sitorus et al., 2019). On the other hand, those who value such technological innovation may tend to use M-banking. This difference among individuals leads to the following hypothesis.

H3: *Compatibility (CM) has a positive effect on intention to use M-banking.*

Subjective Norms

The term "subjective norm" refers to "the degree to which a person believes that important individuals believe he/she should follow the new system" (Venkatesh et al., 2003). It is more likely for an individual to adopt M-banking if an influential person in their network urges them to do so. In contrast, such significant people who will impact individual decisions do not encourage adoption and do not intend to utilize M-banking.

Subjective norm is an essential component that influences M-banking intention, and it was discovered that Subjective norm has a favorable effect on M-banking intention (Abu Shanab, & Pearson, 2007; Martins et al., 2014). As a result, the following hypotheses were advanced in this study.

H4: *Subjective Norms (SN) have a positive effect on intention to use M Banking.*

Perceived Risk

The degree to which people feel they have a likelihood of making mistakes is referred to as perceived risk. Several risk components are connected with M-banking environments, including temporal, social, and financial risk. Time risk refers to the loss of time caused by difficulty with mobile banking operations, as well as any humiliation caused by delays in sending or receiving money via mobile banking (Lee et al., 2005). The chance of not utilizing mobile banking services due to discontent or an unfavorable opinion from family, friends, or any other group, including the media, is referred to as social risk (Chavali, & Kumar, 2018; Lee, 2009). Financial risk may be described as the possibility of losing money due to a transaction error or someone else abusing the bank account. The performance risk has been described as the losses that customers may incur as a result of mobile banking flaws or deficiencies (Han, & Kim, 2008; Lee, 2009). Security risk is described as "the possibility of loss due to fraud or a hacker undermining the security of a mobile banking user" (Lee, 2009). Customers are less likely to utilize M-banking if they believe there is a big danger of doing so (Shuhidan et al., 2017). The following hypothesis was developed for the current investigation based on the data stated above.

H5: *Perceived Risk (*PR) have a negative effect on intention to use M-Banking of ABC Finance PLC.

Perceived Behavioural Controls

Perceived behavioural controls refer to how individuals believe that they possess the required resources to use the innovation (Ajzen, 1991). This means that when individuals perceive that there are no constraints for them to behave (use M-banking), they are more likely to use it. Customers require several resources such as network and hardware resources and ICT skills to effectively use the M-banking services when it comes to the M-banking context. Previous study has offered empirical support for a relationship between perceived behavioral controls and desire to use technological advancements (Bhatt, & Bhatt, 2015; Danyali, 2018). As a result, the following hypothesis was developed.

H6: *Perceived Behavioural Controls (PBC) have a positive effect on Intention to use M-Banking.*

3. Methods

The goal of this study is to identify the primary factors that explain people's intentions to use M-banking. The current study comes under descriptive research because the purpose is to define the predictors of M-banking intention (Zikmund et al., 2010). The current study's research objective aims to determine the important elements influencing consumers' intentions to utilize M- banking in the Southern area. As a result, the survey respondents would preferably be clients from the Southern province. As a result, the 'person' is the unit of analysis for this study.

The majority of prior research on the antecedents of the desire to use M-banking have been undertaken in developed nations. In comparison to industrialized economies, developing and emerging economies conducted very few research since they lag far behind in technology (M-banking) adoption. Furthermore, generalizing findings from established context research to developing and emerging contexts is difficult since these contexts differ in terms of technical infrastructures, national and organizational culture, individual ICT knowledge and competence, and so on. As a result, the current study chose Sri Lanka as a research environment to address this gap in the existing literature. The ABC Finance PLC was chosen as the research environment for this study. ABC Finance PLC is a prominent financial solution provider in Sri Lanka, offering a wide range of financial solutions with a variety of innovations. The company invests a significant amount of money in M-banking to ensure better customer service and profitability. However, they reveal that only 3.2%

of the total account base has registered for mobile banking. From the organisational point of view, this low adoption rate creates several problems that ultimately crate issue of surviving in the comepeptitive industry.

This study's theoretical population consists of ABC Company PLC consumers from all provinces in Sri Lanka. Due to the difficulty of researching the theoretical population, the current study selects ABC Finance clients from the Southern province as the study population. Validated questions from earlier relevant research were used to assess the theoretical components. The modified questions were verified, and language modifications were made to match the instrument to the needs of this study. Operationalisation of variables is shown in the Table 6. Further, the questionnaires were prepared using both English and Sinhala languages. A professional translator completed the back translation of the current study's questionnaire. The questionnaire was structured in such a way that the first portion dealt with demographic characteristics and general questions, the second section included all questions about independent variables, and the third section included questions about the dependent variable of desire to use - banking.

The primary data was obtained using a self-administered questionnaire that was designed to allow participants to complete the questions without the assistance of the researcher. Initially, the author planned to collect data through few channels due to limitation of reaching each individual physically. However, we used an online channel due to COVID 19 pandemic, and all data was collected online. We used an internet-based questionnaire and the link was delivered through e-mails, social media, chat groups. Reminders were sent to respondents who were not responding to the questionnaire to maintain acceptable level of response rate to ensure the quality of the study. The sample of 300 customers drawan from the district wise data base maintained by the regional office of the Firm. With the due permission every tenth person in the district wise list was selected for the sample and their contact details (e-mail addresses) were taken. Thus, 300 questioners were distributed among customers in Galle, Matara and Hambantota districts.The response rate was 92% of the original sample. However, 17 responses were disqualified due to various reasons. Ten questionnaires were incomplete due to some questions were not answered by the respondents. Seven questionnaires were answered abnormally since there were similar answers for all Likert scale questions. After removing disqualified responses, the response rate was 85.2% from the sample.

Table 6 :Operationalisation of variables

Variables	Measurements	Reference
Perceived Usefulness (PU)	"Using M-banking allows me to accomplish more tasks than would otherwise be possible"	Venkatesh (2012)
	"M-banking addresses my banking needs and requirements"	
	"M-banking enables me to accomplish banking tasks efficiently."	
	"M-banking saves my time"	
	"I find M-banking is useful when doing banking transactions"	
Perceived Ease of Use (PEOU)	"I often become confused when I use M-banking"	Venkatesh (2012)
	"I make errors frequently when using M-banking"	
	"It is easy for me to remember how to perform tasks using M-banking"	
	"Interacting with M-banking requires a lot of my mental efforts"	
	"I find M-banking is easy to use"	
Subjective Norm (SM)	"People who influence my behaviour think that I should use M-banking"	Venkatesh (2012)
	"People who are important to me think that I should use M-banking"	
	"Using M-banking has a positive influence on my personal image"	
	"In general, the organisation has supported the use of M Banking"	
Perceived Behavioural Controls (PBC)	"I have the knowledge necessary to use M-banking"	Venkatesh (2012)
	"I have control over using M banking"	
	"I have greater confidence over using M-banking"	
Perceived Risk	"My personal data is safe with the service provider"	Chen (2013)
	"My credit card/ account number may not be secure when I process transactions"	
	"M-banking might be overcharged"	
	"Using M Banking is risky."	
Compatibility (CM)	"M-banking does not require significant changes in existing resources"	Venkatesh (2012)
	"M-banking is compatible with other technologies I use."	
	"I think that using M-banking fits well with the way I do things."	
Intention to Use	"I intend to adopt with M-banking in near future"	Venkatesh (2012)
	"I plan to continue to use mobile banking frequently"	
	"I will always try to use mobile internet in my daily life."	
	"Using the M-banking is not appropriate for a person with my values regarding the role of M-banking technology andapplication"	

Data collected through questionnaire survey feed into the SPSS. Consequently, data were examined for outliers and missing values to clean the data. The sample profile of the respondents was analyzed using frequency distributions, and the Coronach alpha test was performed to confirm the constructs' reliability. Factor analysis performed to ensure the convergent and discriminant validity of the measures (Field, 2013) .The multivariate assumption of linearity and multicolinarty were tested using correlation analysis and tolerance and VIF test respectively (Hair, Black, Babin, & Anderson, 2010). Regression analyses was performed to test the hypothesis as the six hypotheses of the present study aims at explain the variance on the dependent variable (intention to use M- banking) using six independent variables (Hair, *et al*, 2010).

4. Results and Discussion

4.1 Results

First, demographic parameters were examined, and the findings are shown in Table 7. The bulk of responders (78.9 percent) were male, while 21.1 percent were female. Most of the respondents were from the age group of age 31 to 40 years, with 51.6% of the total respondents. It was followed by the 21 to 30year group which represents 38.5% of the participants. Most of the participants i.e., 37.6% have a Diploma as their education qualification. As indicated in the Table 7, 52.6% of the participants are married.

Table 7 : Demographic profile of the respondents

Variable	Frequency	Percent
Gender		
Female	45	21.1
Male	168	78.9
Age category		
21 to 30 years	82	38.5
31 to 40 years	110	51.6
41 to 50 years	21	9.9
Education Level		
G.C.E. (A/L)	51	23.9
Diploma	80	37.6
Degree	65	30.5
Others	17	8.0
Residence		
Galle	58	27.2
Matara	111	52.1
Hambantota	44	20.7
Marital status		
Single	101	47.4
Married	112	52.6

The measures' convergent and discriminant validity were statistically verified using factor analysis. Hair et al. proposed three criteria for determining data adequacy for factor analysis (2010). First, a visual examination of the correlation matrix indicated that a significant proportion of correlations were more than 0.30. Second, the Barlett's Test of Sphericity yielded statistically significant findings (approx. chi-square 8457, df 267, sig.000), showing that the correlations between the variables were strong enough to proceed with component analysis. Third, for both the overall test and each variable, the measure of sample adequacy in terms of Kaiser-Meyer-Olkin (KMO) values was observed. The entire KMO value was 0.682, which is more than the threshold value of 0.50. (Hair et al., 2010). Each variable had KMO values greater than 0.5. Finally, all three requirements were satisfied.

After checking the initial factor analysis assumptions, all variables were factored using principal component analysis. Because the current study employed previously validated instruments, with the exception of one variable, an a priori criterion in which the researcher stated how many factors to extract was used as a criterion to determine the number of factors to be extracted (Hair et al., 2010). The rotated factor matrix was created using Varimax rotation. Because the bulk of the constructs had a well-established theoretical background, items with a factor loading of +/-0.5 or more were selected as significant loadings (Hair et al., 2010). Table 8 depicts the final factor structure.

Table 8 : Factor Analysis

Items	Factors					
	Perceived Usefulness	Perceived Ease of Use	Subjective Norms	Compatibility	Perceived Risk	Perceived Behavioural Controls
PU1	0.651					
PU 2	0.576					
PU 3	0.742					
PU 4	0.622					
PU 5	0.673					
PEOU1		0.741				
PEOU 2		0.736				
PEOU 3		0.721				
PEOU 4		0.623				
PEOU 5		0.574				
COM1			0.611			
COM 2			0.721			
COM 3			0.584			
PR1				0.578		
PR 2				0.651		
PR 3				0.587		
PR 4				0.574		
SN1					0.841	
SN2					0.662	
SN3					0.713	
SN4					0.632	
PBC1						0.789
PBC2						0.714
PBC3						0.652

Cronbach Alpha values were assessed to determine the reliability of the constructs, and the findings are reported in Table 9. All of the variables met the 0.6 criteria, indicating the measurements' internal consistency.

Table 9: Reliability Analyses

Variable	Cronbach's Alpha	Number of items tested
Perceived Usefulness	0.809	5
Perceived Ease of Use	0.781	5
Compatibility	0.801	3
Perceived Risk	0.924	4
Subjective Norms	0.916	4
Perceived Behavioural Controls	0.914	3
Intension to Use	0.916	4

Source: Survey Data, 2020

Once the constructs' reliability was proven, correlations between variables were investigated using Pearson correlation, and the findings are displayed in Table 10. Because the correlation coefficients among the few independent variables were quite high, multicollinearity was assessed using tolerance and Variance Inflation Factor (VIF) values, with the findings reported in Table 9. As the tolerance values are more than 0.10 and the VIF values are less than 10, the result indicates that multicollinearity does not exist among all independent variables.

Table 10 :Correlations

	PEOU	PU	CM	PR	SN	PBC	IU	Tolerance	VIF
PEOU	1							0.143	6.527
PU	0.265**	1						0.187	6.442
CM	0.729**	0.049	1					0.186	5.471
PR	0.465**	0.064	0.317**	1				0.378	3.452
SN	0.388**	0.075	0.079	-0.079	1			0.142	7.728
PBC	0.393**	0.048	0.266**	-0.114	0.808**	1		0.185	5.457
IU	0.069	0.210**	0.177**	-0.356**	0.462**	0.614**	1	0.189	5.425

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

Source: Survey Data, 2020

Hypothesis testing

SPSS regression analysis is used for hypothesis testing. Table 10 shows the outcomes of hypothesis testing, including R2, standard coefficient, and significance. The adjusted R Square value is 0.552. (Table 11). Thus, using the six independent variables indicated in the research model, the regression model explains 55% of the variation in respondents' intention to use M-banking, and the ANOVA test revealed that the regression model is statistically significant (F = 44.501, p= 0.000).

Table 11 : Regression Results

Variables	Standardised Coefficients Beta	t	Sig.
Perceived Ease of Use (PEOU)	0.529	5.443	0.000
Perceived Usefulness (PU)	0.281	5.460	0.000
Compatibility (CM)	0.440	5.544	0.000
Perceived Risk (PR)	-0.157	-2.677	0.008
Subjective Norms (SN)	-0.155	-1.720	0.087
Perceived Behavioural Controls (PBC)	0.548	6.400	0.000
Adjusted R Square	0.552		
ANOVA	F = 44.501, *p*= 0.000		

In sum, this study con? rms the results of TPB. Supporting H1, Perceived Ease of Use had signi? cant effects on intention to use M-banking (b = 0.529, p = 0.000). Perceived Usefulness had a signi? cant positive impact on intention to use M-banking, supporting H2 (b = 0.281, p = 0.000). Compatibility had a signi? cant positive impact on intention to use M-banking supporting H3 (b = 0.440, p = 0.000). Perceived risk found to have a signi? cant negative effect on the intention to use M-banking, supporting H5 (b = -0.157, p = 0. 000). Perceived Behavioural Controls had a signi? cant positive impact on intention to use M-banking, supporting H6 (b = 0.548, p = 0. 000). This study did not find empirical support on the relationship between subjective Norms and intention to use M-banking, not supporting H4.

4.2 Discussion

Perceived Ease of Use, Compatibility, Perceived Behavioral Controls, Perceived Usefulness, and Perceived Risk were discovered to have a significant effect on the proclivity to use M-banking. The perceived ease of use influenced the propensity to adopt M-banking. The relationship between Perceived Ease of Use and intent to use M-banking has been established, and the findings confirmed the relevance of the link. These findings suggest that when customers view M-banking to be a simple procedure that is easy to understand and use, they are more likely to utilize it. This is consistent with the findings of Raza et al. (2017). The ?ndings also suggested that Perceived Usefulness has a signi?cant positive effect on the intention to use M-banking. As suggested by previous studies of Mutahar et al. (2018) it has been suggested t that once an individual perceive that M-banking offers them ample opportunities to perform their banking related tasks more efficiently and effectively they are more likely to use it.

Furthermore, this study discovered that compatibility has a substantial impact on the intention to utilize M-banking, which is consistent with prior findings by Sitorus et al. (2019). According to the findings of this study, workers are willing to use m-banking services if they consider it is consistent with their technical and personal values. This study also confirms the importance of Perceived Behavioural Controls in predicting customers' intention to use M-banking and con?rm the validity of TPB in the context of M-banking. These findings are consistent with previous studies of Danyali (2018).

This study also discovered empirical support for the association between perceived risk and propensity to utilize mobile banking. This indicates that once a person believes that utilizing M-banking is risk-free, they are more likely to utilize the service. This validates the prior research' findings (Shuhidan et al., 2017). However, no statistically significant association was found between subjective norms and the desire to utilize m-banking in this study. This finding contradicts earlier research. This might mean that customers' perceived subjective norms would have less influence than other variables in influencing their inclination to utilize M-banking. This may be due to reference group of the respondents of this study may not have much knowledge about the M-banking. Thus, their influence is not having significant effect on determining intention to use internet banking.

5. Implications

The theory of planned behavior was used to guide this investigation. The present study contribute to the existing domain of knowledge by developing and empirically validating the extended TPB in Sri Lankan context. Compatibility and perceived risk have been included to the study's enlarged model since they are more applicable in the context of M-banking. This concept was not extensively tested in a developing economy environment like Sri Lanka or in the context of mobile banking. As a result, our research contributes by bridging the theoretical divide between developed and developing environments. The findings of the study add to the existing literature by throwing light on the factors that impact M-banking intention. In the financial business, the study proposes a model for assessing clients' desire to adopt M-banking. Finally, for a developing nation like Sri Lanka, this research has supplied extensive knowledge in the realm of technology adoption literature.

Most financial institutions confront significant obstacles, such as a large client base that does not use their M-banking services. To address this issue, the current study results will enable banking organizations to establish the most appropriate marketing plan for encouraging clients to adopt M-banking as a more convenient and innovative channel. According to demographic profile analysis, the study revealed that more men use the mobile banking application of ABC Company than women as well as most users are between 20-40 age categories. This is a significant finding for the company when determining promotion and advertising on M-banking applications. The company can focus on women rather than men since the market is almost there and can be increased through proper technical knowledge-sharing programmes. As well as a different strategy should be implemented for men since they are already aware of M-banking applications, perhaps they might be seeking upgrade of the existing versions with new features and functions, but the same cannot be expected from women, according to demographic analysis. When considering respondents' age distribution, most users were between the ages of 20 to 40 since the factor is significant for decision-making and deciding marketing strategies.

From the perceived usefulness aspect, it can be identified that M-banking users are highly concerned about the effectiveness of what they performed using M-banking. Therefore, it is necessary to create marketing campaign on awareness of M-banking services among the customers about the benefits of M-banking specially focusing on convenience and availability.

Furthermore, the companies should educate their clients on how to conduct their day-to-day banking operations via M-banking and make the services more familiar to the customers. When a customer visits the branch, it will be beneficial if the staff members can convince and educate them on how to use M-banking services. Moreover, as this study found perceived risk as a significant driver in explaining intention to use M-banking, it is important to educate customers about the possibility of the conducting risk-free transactions through M-banking.

6. Conclusion, Limitations and Future Research

The purpose of this study was to discover the major elements influencing Sri Lankan consumers' inclination to use M-banking in a selected prominent financial firm in Sri Lanka. The Theory of Planned Behavior served as the foundation for the research model (TPB). The research model contained six independent variables: ease of use, perceived utility, perceived danger, subjective norms, compatibility, and perceived behavioral controls, with intention to use M-Baikg as the dependent variable. The study concludes that five criteria, namely perceived ease of use, perceived utility, compatibility, perceived danger, and perceived behavioral control, influence the inclination to use M-banking.

This study was conducted in the context of Sri Lanka, targeting M-banking users in the Southern province of a selected finance company. This leads to the issue of the generalisability. Hence, the findings may not apply to Sri Lanka as a whole, as there are certain differences among customers in different provinces. The second limitation is related to the study's design. This study employed a cross-sectional design, with data collected at a single moment in time. As M-banking adoption is seen as a connected psychological construct, longterm empirical investigations are necessary to fully comprehend this phenomena. Future longitudinal research projects would considerably contribute to the literature.

The third drawback concerns the current study's sample size. The sample size was restricted to 213 responders due to time and cost restrictions. A larger sample size would increase statistical power and yield more solid results. (Hair et al., 2010). Future research with a bigger sample size is thus necessary. The fourth constraint concerns data gathering tools. The current study collected primary data regarding the phenomena of interest via a questionnaire survey. Interviews, for example, would allow for a more in-depth study of M-banking usage behavior and its drivers. As a

result, future research that use interviews and qualitative analysis of interview data will yield vital insights into this phenomena. The sixth limitation is the inclusion of independent variables in the study model. The study only employed five TPB-based criteria. Other theories, such as the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Diffusion of Innovation Theory, may have an influence on M-banking adoption. Finally, this study does not take into account the institutional, regulatory, and security aspects of M-banking, which might have a substantial influence on consumer opinion.

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