

Department of Banking & Finance Wayamba University of Sri Lanka Sri Lankan Journal of Banking and Finance

An endeavor to share knowledge

Volume: 7 Issue: 01 June: 2024

FACTORS INFLUENCING BEHAVIORAL INTENTION TO ADOPT MOBILE BANKING: WITH SPECIAL REFERENCE TO GAMPAHA DISTRICT, SRI LANKA

M A C Jayamali A G D L K Gunaratna SLJBF 07.01.05: pp. 97-114 ISSN 2345-9271 (Print) ISSN 2961-5348 (Online) DOI: <u>http://doi.org/10.4038/sljbf.v7i1.55</u>

Abstract

Mobile phones have created a platform to expand commercial transactions and it has created a wide array of business opportunities. With the emerge of mobile commerce, the concept of mobile banking has emerged. Mobile banking offers ubiquitous and hassle-free access for banking customers. Nevertheless, it has been observed that Sri Lankan banking customers are sometimes cautious to conduct their financial activities through mobile devices. Therefore, this research study has been carried out with the objective of identifying the factors influencing behavioral intention to adopt mobile banking with special reference to Gampaha district, Sri Lanka. The dependent variable of this research study is the behavioral intention towards mobile banking adoption and the dimensions of the independent variable includes perceived usefulness, perceived ease of use, relative advantage, perceived risk and compatibility. 310 mobile banking users in the Gampaha district has been utilized as the sample for this study and data collection has been performed through an online questionnaire. Both quantitative method and deductive approaches were utilized to identify the determinants that influence on behavioral intention. Regression analysis has been conducted to analyze data and the results indicate that perceived usefulness, perceived ease of use, relative advantage and compatibility depicts a positive and significant impact on behavioral intention towards mobile banking adoption of customers. On the contrary, perceived risk depicts a negative and significant impact on behavioral intention. Therefore, banks should align their product offerings to the needs of their customers in the process of developing mobile banking products. It will be much more convenient to provide banking customers with a service in order to deliver a superior value and retain them in the long run.

Keywords: Behavioral Intention, Compatibility, Mobile Banking, Perceived Risk, Relative Advantage

M A C Jayamali (Corresponding Author) ESOFT Metro Campus, Sri Lanka Email: chathurika.jayamali@esoft.lk Tel: +94 77 0171 661 ©<u>https://orcid.orq/0009-0001-3240-6887</u>

A G D L K Gunaratna Department of Banking & Finance, Wayamba University of Sri Lanka

Email: lahiru@wyb.ac.lk



1. INTRODUCTION

1.1. Background of the Study

The progress in devices and technology has made it easier for banking customers to access services at any time and, from anywhere. Numerous banks globally have launched apps that enable users to conveniently access financial information and carry out transactions directly from their smartphones. Mobile banking has been a concept which intends to offer rapid and interactive banking services (Gu et al., 2009). Mobile banking can be defined as a channel whereby a consumer communicates with a bank via a mobile device (Barnes & Corbitt, 2003). Using a mobile portable device and a mobile service, mobile banking is an application of mobile computing that gives users the assistance they need to conduct financial transactions anywhere and at any time (Kahandawa & Wijayanayake, 2014).

With the advent of mobile banking, banks have improved their efficiency by reducing operational expenses and time, while also offering consumers a great deal of convenience by enabling them to execute financial transactions at any time and location (Alalwan et al., 2016). The growing popularity of mobile banking suggests that the banking sector has a great deal of potential. By integrating a new technology (mobile banking) with their old systems, banks may keep their current customer base while still having the chance to attract new customers. But nevertheless, it may be difficult to keep current mobile banking customers and win over new ones (Devaraj et al., 2002).

Throughout the past decades, there has been a rapid development in the field of mobile banking services. The research community has recently focused on customer penetration in mobile banking (Rogers, 2003). The widely recognized TAM has focused on a number of factors to explain how technology is being adopted by corporate organizations. TAM provides the theoretical framework for comprehending online customer behavior about the adoption of cutting-edge technologies. TAM was created for forecasting the adoption and use of new information technologies and systems by taking into account the variables that influence an organization's information systems' success and their adaptation to work (Davis, 1989). TAM highlights that a user's decision to utilize a system depends on his or her behavioral intention, which is determined by two factors: perceived usefulness and perceived ease of use (Priya et al., 2018).

An invention that offers clients more value when compared to its predecessors is also known as relative advantage. According to Karayanni (2003), if a customer perceives that buying online will benefit more than shopping in a physical store, the customer always prefers this online method of purchasing and it will fuel the concept of mobile banking. In the study of innovation dissemination and adoption, perceived risk was initially presented as an external variable, and it is claimed that the rate of adoption is inversely correlated with the magnitude of perceived risk (Frambach & Schillewaert, 1999). According to the Innovation Diffusion Theory, the major sources for developing a theoretical framework to determine the impact of such technological

platforms on commercial applications are compatible with user lifestyle and current needs (Rogers, 2003).

1.2. Research Problem

Establishing strong relationships with consumers through the provision of innovative services that are high-quality and secure helps commercial banks to maintain their competitive position in the domestic market (Kahandawa & Wijayanayake, 2014). According to Ayoobkhan (2018), banks must reinvest in and expand their information technology projects in order to win over the trust and satisfaction that customers want from mobile banking services. Commercial banks in Sri Lanka have launched a number of solutions to promote mobile banking. The key benefit of this service is that customers can conduct transactions and carry out banking tasks whenever and wherever they want. While there are 27.38 million smartphone users in Sri Lanka, only 20% of banking customers use mobile banking services (Kahandawa & Wijayanayake, 2014).

This indicates that Sri Lankan consumers do not still rely heavily on the technology of mobile banking. The effectiveness of mobile banking is demonstrated by the use of several mobile banking channels to determine what mobile technologies will be required to make mobile banking the preferred option for all banking activities.

Furthermore, in practice, convincing banking customers to change their behavior from utilizing traditional banking channels to mobile banking is not a simple task, especially given that this issue is not well understood from the customers' perspective (Dwivedi & Irani, 2009). Therefore, knowing the potential causes of the slow acceptance of mobile banking could aid banks in accelerating the use of such technology. The Sri Lankan context has yet to undergo an empirical examination of mobile banking related concerns due to the fact that this concept is still in its early stages (Kahandawa & Wijayanayake, 2014).

The researcher has selected Gampaha district for the current study due to the customers who are in the Gampaha district are more knowledgeable than the other customers regarding mobile banking activities (Hettiarachchi, 2014). Therefore, this study is intended to fill the gap of less dependency on mobile banking services by experimentally identifying the what are the factors which is influencing behavioral intention to adopt mobile banking from the perspective of Sri Lankan commercial banking customers with special reference to Gampaha district.

1.3. Objectives of The Study

The general objective of this study is to identify the factors influencing behavioral intention to adopt mobile banking with special reference to Gampaha district, Sri Lanka. Specific objectives are as follows,

I. To identify the impact of perceived usefulness on behavioral intention towards mobile banking adoption.

- II. To analyze the impact of perceived ease of use on behavioral intention towards mobile banking adoption.
- III. To investigate the impact of relative advantage on behavioral intention towards mobile banking adoption.
- IV. To determine the impact of perceived risk on behavioral intention towards mobile banking adoption.
- V. To demonstrate the impact of compatibility on behavioral intention towards mobile banking adoption.

2. LITERATURE REVIEW

2.1. Theoretical Review

2.1.1. Technology Acceptance Model

There are many models out there that have been utilized to look into technology adoption. TAM, which Davies first developed in 1986, is at the foundation of a number of research examining mobile service acceptance (Lules et al., 2012). The model was initially created to forecast user adoption of information technology and utilization in an organizational setting and the TAM, which focuses on the attitude justifications of intention to use a certain technology or service, is now a frequently used paradigm for user acceptance and usage. Several meta-analyses on the TAM have shown that it is a reliable, strong, and effective model for forecasting user acceptance (Bertrand & Bouchard, 2008). According to TAM, people's acceptance and use of a technology are influenced by two basic ideas: perceived usefulness and ease of use (Davis, 1989).

2.1.2. Innovation Diffusion Theory

According to the IDT, adopting an innovation by customers is a complicated process. This theory discusses the significance of comprehending the limitations and advantages of mobile services, as well as the functional distinctions amongst mobile service bundles which helps to effectively and successfully employ these bundles in the present and the future (Bouwman et al., 2007). The IDT, which is proposed by Rogers in 1962, explains how an innovation spreads across users over time and according to the theory, people can be categorized into five categories based on how innovative they are (Liu & Li, 2010). The adoption or rejection of an idea is better understood with the aid of the innovation diffusion theory (MacVaugh & Schiavone, 2010).

2.1.3. Mobile Banking

Mobile banking is the usage and delivery of banking and financial services via portable telecommunications devices, such as smartphones or tablets (Goyal, 2012). Customers can access their banking services through mobile banking on their mobile devices as an additional channel. Banks have offered a new delivery channel to current bank customers and most mobile banking offerings have become much more addictive once customers start experiencing the service. Populations who do not have

bank accounts are integrated into the financial system using transformative models (Mostafa, 2010). Financial institutions have been able to replace where possible a portion of the traditional in-person banking transactions with automated services thanks to the facilities supplied by mobile banking services. When electronic banking systems start offering effective automated banking services through wireless networks, mobile banking will totally revolutionize how customers do financial transactions (Lee & Chung, 2009).

2.1.4. Behavioral Intention

The time and physical circumstances that allow for a given behavior to be carried out are referred to as facilitating conditions. It directly affects how conveniently users see online stores, as well as how consumers intend to behave while using banking services and retail electronics (Venkatesh et al., 2003). Due to the internet's and e-commerce's explosive expansion in the 2000s, TAM studies are now concentrating on another crucial behavioral intention construct. TAM has been expanded to include determinants of the major components, as well as additional key construct of behavioral intention across a wide spectrum of IT, in order to more thoroughly explain users' acceptance (Gu et al., 2009).

2.2. Empirical Review

2.2.1. Impact of Perceived Usefulness on Behavioral Intention

In response to a question about the utility of mobile banking, the respondents' responses are clear evidence that most of them believed that using a mobile device to conduct banking activities helps them complete their chores more quickly, in general, and makes doing so easier (Ravichandran & Madana, 2016). The usefulness of mobile banking in enhancing effectiveness or efficiency will favorably affect perception of that application (Aboelmaged & Gebba, 2013). Customers are more likely to use mobile banking services if they find them beneficial (especially now that electronic banking is readily available) (Karjaluoto et al., 2010). Perceived usefulness is a significant driver of customer satisfaction (Marinkovic & Kalinic, 2017).

2.2.2. Impact of Perceived Ease of Use on Behavioral Intention

When users see that there are circumstances for learning how to use mobile banking service, even though they cannot use it skillfully, they will believe it to be simple to (Gu et al., 2009). Consumers are more likely to use mobile banking services if there are user-friendly mobile banking applications and fundamental application abilities (Kazi & Mannan, 2013). The increased complexity of using a tiny device to perform financial transactions is thought to influence ease of use, and if a mobile device is easier to use for banking transactions, the higher the intention to adopt or use it (Karjaluoto et al., 2010).

2.2.3. Impact of Relative Advantage on Behavioral Intention

Consumer adoption of mobile banking services was significantly influenced by relative advantage (Yunus, 2014). The researcher discovered that the antecedents of attitude toward mobile banking differ between potential and recurrent consumers, and

that relative advantage has a positive effect on behavioral intention to use mobile banking (Lin, 2011). The relative benefit of using mobile banking services increases, increasing the likelihood that mobile banking will be used (Hettiarachchi, 2014). Customer satisfaction with mobile banking services is positively impacted by relative advantage, and banks are under pressure to compete on both the quality of their services and their administrative effectiveness (Yu & Fang, 2009).

2.2.4. Impact of Perceived Risk on Behavioral Intention

When there was a feeling of unease about their safety, people were hesitant to adopt mobile banking, and as the level of unease rose, people were more risk-aware. A dynamic component in forecasting a person's attitude and intention to utilize mobile banking is known as perceived risk (Deventer et al., 2017). Consumer attitudes and intentions toward mobile banking would decline as the perceived level of risk rose (Rehman & Shaikh, 2020). Perceived risk is the degree of uncertainty surrounding the security of the innovation or the outcome of its application (Gerrard & Cunningham, 2003). Particularly, the views of customers toward mobile banking were adversely correlated with perceived risk (Roy et al., 2017).

2.2.5. Impact of Compatibility on Behavioral Intention

The adoption of and attitude toward mobile banking services among consumers are significantly influenced by compatibility. The most important factors that explained the uptake of mobile banking were found to be adoption with lifestyle (Kumari, 2015). The most important factor influencing intents to use mobile banking services in both developed and developing nations is compatibility (with lifestyle and device) (Shaikh & Karjaluoto, 2015). Despite widespread acceptance of its utility, contemporary banking is incompatible with Pakistan's rural population's way of life due to cultural influences (Mazhar et al., 2014).

3. RESEARCH METHODOLOGY

To explore the factors influencing behavioral intention to adopt mobile banking, the quantitative method and deductive approaches were utilized. For this research study, primary data was obtained from respondents through a questionnaire, and the gathered data were analyzed using the SPSS.

The dependent variable, behavioral intention towards mobile banking adoption has been identified in previous literature and the dimensions of the independent variable include perceived usefulness, perceived ease of use, relative advantage, perceived risk and compatibility. The Summary of the variable links can be established and it depicts the support of the variables for the study.

The following conceptual framework can be developed based on the identified independent and dependent variables.



Source: Researcher Constructed (2024)

Figure 01: Conceptual Framework

The following hypotheses can be constructed for testing purposes based on the conceptual framework.

H1: Perceived usefulness could have a positive and significant impact on behavioral intention towards mobile banking adoption.

H2: Perceived ease of use will have a positive and significant impact on behavioral intention towards mobile banking adoption.

H3: Relative advantage would have a positive and significant impact on behavioral intention towards mobile banking adoption.

H4: Perceived risk could have a negative and significant impact on behavioral intention towards mobile banking adoption.

H5: Compatibility will have a positive and significant impact on behavioral intention towards mobile banking adoption.

The indicators of the dimensions of the independent variable and dependent variable can be operationalized as follows,

Variables	Dimensions	Indicators	Source	Ouestion No.
	Perceived	Useful	Davis (1989)	01
	Usefulness	Beneficial	Davis (1989)	02, 03, 04
		Practical	Davis (1989)	05
	Perceived Ease of	Ease of operation	Davis (1989)	06, 07, 08
Independent Variable	use	Easy to skilled	Davis (1989)	09
(Mobile Banking Adoption)	Relative Advantage	Ease of remembering operation Effectiveness Increased	Davis (1989) Kahandawa & Wijayanayake (2014) Kahandawa &	10 11, 12 13, 14
		Productivity	Wijayanayake (2014)	,
	Perceived Risk	Task Completion Safety Privacy	Kahandawa & Wijayanayake (2014) Hettiarachchi (2014) Hettiarachchi (2014)	15 16, 17 18, 19, 20
	Compatibility	Fitness	Davis (1989)	21, 22, 23
		Personal	Davis (1989)	24, 25
Dependent Variable (Behavioral Intention towards Mobile Banking Adoption)	Quantitative and Qualitative Dimensions	Reliability	Hettiarachchi (2014)	26, 27
		Accessibility	Kahandawa & Wijayanayake (2014)	28

Table 01: Operationalization Table

Source: Researcher Constructed (2024)

The target population consists of banking customers who use the mobile banking of four of the top commercial banks in the Gampaha district. In order to represent both the public and private sectors, the study has focused on four commercial banks including two state banks and two private banks. Since these banks have initially introduced mobile banking services, researcher has selected these four banks to represent the target population (Kahandawa & Wijayanayake, 2014). Furthermore, the customers who are in the Gampaha district are more knowledgeable than the other customers regarding mobile banking activities (Hettiarachchi, 2014). Based on the Krejcie and Morgan table, the sample for this research study consists of 310 respondents from the total population of 1600 mobile banking customers. The banking customers of four commercial banks were chosen using the convenience sampling method.

Purposive sampling is adopted utilized to collect information from respondents with superior knowledge and expertise of mobile banking services, which is appropriate for achieving the research objective. An online questionnaire was used to gather primary data on determinants of behavioral intention towards mobile banking adoption and this strategy allowed researcher to obtain first – hand information from the respondents. Twenty-eight (28) questions altogether, constructed based on independent and dependent variables, made up the questionnaire for this study and there were seven sections to the online questionnaire using five – point Likert scale method. After the collection of data, the study was focused towards conducting an analysis of the data that was in line with the study's predetermined purpose. The secondary data was gathered from the results of earlier studies that were looked into in reference to this research study.

4. **RESULTS**

Reliability analysis, frequency analysis, descriptive statistics, correlation analysis, and regression analysis were performed for the data which has been gathered. Normality test measures the distribution of the data set and this has normally distributed with zero mean value and one standard deviation and with a symmetric bell-shaped curve.

4.1. Reliability Analysis

Reliability testing evaluates the questionnaire's validity and makes the assumption that the questionnaire is reliable if the Cronbach's Alpha value is greater than 0.7. According to the analysis of this research study, Cronbach's Alpha value of perceived usefulness, perceived ease of use, relative advantage, perceived risk, compatibility and behavioral intention towards mobile banking remained as 0.757, 0.839, 0.760, 0.935, 0.895 and 0.787 respectively. It demonstrates that, the questionnaire that has employed by the researcher was a reliable one. As a matter of fact, according to the reliability analysis, Cronbach's Alpha values for all dimensions of independent variable and the dependent variable were higher than 0.7.

4.2. Examining the Respondents' Profile

Out of 310 respondents, 60% were men and 40% were women, as per the data analysis. As a result, men made up the majority of the respondents and this indicates that male respondents are more inclined than female respondents to use mobile banking services.

The respondents, comprising 71.5%, were employed, while 11.2% were students and 17.3% were business owners. The largest age group among respondents was those aged 21 to 30 years, accounting for 54.8% of the total. Smaller proportions were represented by individuals under 20 years (2.2%), those between 31 and 40 years (22.3%), those between 41 and 50 years (19.7%), and those above 50 years (1%). These findings suggest a preference among younger demographics for utilizing mobile banking services compared to older age groups.

3.1% of respondents hold a postgraduate degree, while 25.5% have a bachelor's degree, 19.6% possess a professional qualification, 13.8% have a diploma, 34.1% hold an Advanced Level (A/L) pass, and 3.9% have an Ordinary Level (O/L) pass. As a matter of fact, the majority of respondents hold an Advanced Level qualification,

with fewer holding post-graduate qualifications. Notably, 55.5% of mobile banking users have engaged with the bank for 1 to 5 years. Only about 1.5% of customers have never interacted with the bank, approximately 11.3% have been customers for more than 5 years, and about 31.7% have interacted with the bank for less than a year. Regarding frequency, 4.5% use mobile banking daily, 6.1% twice weekly, 21.2% once weekly, 66.5% once a month, and 1.7% not at all. It is worth mentioning that the majority of users utilize mobile banking services once a month.

4.3. Descriptive Analysis

As depicted in Table 03, the mean value of perceived usefulness, perceived ease of use, relative advantage, perceived risk and compatibility were 4.115, 4.103, 3.725, 3.430 and 4.164 respectively. Perceived risk has the highest standard deviation and that variable was highly dispersing from the mean value. Perceived usefulness has the lowest standard deviation value and it implies that perceived usefulness of the data set has been dispersed close to the mean value.

Table 02. Descriptive Analysis					
Variable	Mean	Standard Deviation			
Perceived Usefulness	4.115	0.597			
Perceived Ease of Use	4.103	0.652			
Relative Advantage	3.725	0.674			
Perceived Risk	3.430	0.907			
Compatibility	4.164	0.702			

Table 02:	Descriptive	Analysis
-----------	-------------	----------

Source: SPSS Data (2024)

4.4. Correlation Analysis

Pearson Correlation can be used to determine the type and degree of the relationship between the dependent variable and the independent variables. Pearson Correlation values of perceived usefulness, perceived ease of use, relative advantage, perceived risk and compatibility were 0.733, 0.720, 0.552, 0.153 and 0.796 respectively. That indicates that all independent variables have a positive correlation with behavioral intention towards mobile banking adoption at 0.01 significance level.

Pearson Correlation	Significance Value (p Value)
0.733	0.000
0.720	0.000
0.552	0.000
0.153	0.006
0.796	0.000
	Pearson Correlation 0.733 0.720 0.552 0.153 0.796

Source: SPSS Data (2024)

Correlation analysis revealed that all independent variables had significance values of 0.000, while the perceived risk had a significance value of 0.006. Because all p values were lower than 0.01 (At 0.01 significance level), it suggests that all independent variables (perceived usefulness, perceived ease of use, relative advantage, perceived risk and compatibility) were statistically significant variables.

4.5. Regression Analysis

Based on the analysis findings, the R value for this research was determined to be 0.845, while the R Square value stood at 0.724. This indicates that 72.4% of the variance in behavioral intention towards mobile banking adoption is accounted for by the independent variables, including perceived usefulness, perceived ease of use, relative advantage, perceived risk, and compatibility. The remaining 27.6% of variance is attributed to factors beyond the scope of this study. Additionally, the adjusted R square value was calculated to be 0.709. The Durbin-Watson value in this study was 1.889 and it implies that there is no first order linear auto correlation between variables as it was in between 1.5 < d < 2.

Table 04. Regression Results					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.845 ^a	0.724	0.709	0.36432	1.889
D 1' 4	(0)	() D		' 1E CU D1.'	

Table 04. Degregation Degulta

a. Predictors: (Constant), Perceived Usefulness, Perceived Ease of Use, Relative Advantage, Perceived Risk, Compatibility

b. Dependent Variable: Behavioral Intention towards Mobile Banking Adoption

Source: SPSS Data (2024)

Model	Measurement	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	99.961	5	19.992	150.531	.000 ^b
	Residual	40.375	304	.133		
	Total	140.335	309			

Table 05: ANOVA

a. Predictors: (Constant), Perceived Usefulness, Perceived Ease of Use, Relative Advantage, Perceived Risk, Compatibility

b. Dependent Variable: Behavioral Intention towards Mobile Banking Adoption

Source: SPSS Data (2024)

According to Table 05, the significance value is lower than 0.05 and therefore, researcher conclude that, at the 5% of significance level, the overall model is statistically significant. It means the model is fit of the regression model.

Table 06: Coefficients							
Model	Coefficient	Unstandardized Coefficients		Standardized Coefficients	Т	Sig.	
		В	Std. Error	Beta			
1	Constant	0.317	0.161		1.955	0.050	
	Perceived Usefulness	0.285	0.055	0.252	5.110	0.000	
	Perceived Ease of Use	0.136	0.052	0.129	2.480	0.013	
	Relative Advantage	0.135	0.042	0.135	3.347	0.001	
	Perceived Risk	-0.036	0.014	-0.041	-1.836	0.048	
	Compatibility	0.446	0.050	0.460	9.105	0.000	

Source: SPSS Data (2024)

The following model can be derived for the behavioral intention towards mobile banking adoption as revealed in Table 06.

$$BIMBA = 0.317 + 0.285(PU) + 0.136(PEU) + 0.135(RA) - 0.036(PR) + 0.446(C) + \mu$$

According to the regression analysis results, perceived usefulness exhibited a positive relationship with behavioral intention towards mobile banking adoption, with a coefficient of 0.285. Similarly, perceived ease of use also showed a positive relationship with behavioral intention, with a coefficient value of 0.136. The coefficient for relative advantage was 0.135, indicating a positive correlation with behavioral intention towards mobile banking adoption. Conversely, perceived risk demonstrated a negative relationship with behavioral intention, with a coefficient value of 0.446, suggesting a positive relationship with behavioral intention towards mobile banking adoption.

The significance values of perceived usefulness, perceived ease of use, relative advantage, perceived risk and compatibility were 0.000, 0.013, 0.001, 0.048 and 0.000 respectively. According to the results of regression analysis, all the dimensions of independent variable such as perceived usefulness, perceived ease of use, relative advantage, perceived risk and compatibility can be considered as statistically significant variables which affected the behavioral intention towards mobile banking adoption since the p values of all dimensions were less than 5% significance level.

Table 07. Testing of the Hypotheses

	Tuble 07. Testing of the H	pomeses		
Variable	Hypothesis	p Value	Impact	Accept / Reject
Perceived Usefulness	Perceived usefulness could have a positive and significant impact on behavioral intention towards mobile banking adoption.	0.000	Positive and Significant	Accept
Perceived Ease of Use	Perceived ease of use will have a positive and significant impact on behavioral intention towards mobile banking adoption.	0.013	Positive and Significant	Accept
Relative Advantage	Relative advantage would have a positive and significant impact on behavioral intention towards mobile banking adoption.	0.001	Positive and Significant	Accept
Perceived Risk	Perceived risk could have a negative and significant impact on behavioral intention towards mobile banking adoption.	0.048	Negative and Significant	Accept
Compatibility	Compatibility will have a positive and significant impact on behavioral intention towards mobile banking adoption.	0.000	Positive and Significant	Accept

4.6. Testing of the Hypotheses

5. DISCUSSION

Based on the results of the reliability study, the questionnaire used for the study was deemed reliable, as evidenced by Cronbach's Alpha values exceeding 0.7 for both the dependent variable and dimensions of the independent variable. Upon examining various factors, it was observed that the majority of respondents were male, suggesting a higher propensity among males for mobile banking adoption compared to females. Additionally, most respondents were single and employed. Furthermore, a significant proportion fell within the 21-30 age bracket, indicating a preference for mobile banking adoption among younger demographics. Moreover, respondents with A/L qualifications constituted the majority, whereas those with postgraduate degrees were in the minority. It is noteworthy that the majority of mobile banking users have been using the service for between one and five years, with most users utilizing mobile banking services only once a month.

According to the results of the descriptive analysis, compatibility exhibited the highest mean value at 4.1638, while perceived risk had the lowest mean value at 3.4296. This indicates that perceived risk displayed the highest dispersion from the mean value, as evidenced by its highest standard deviation. Conversely, perceived usefulness had a dataset that was dispersed closely around the mean value, as indicated by the lowest standard deviation.

According to the results of the correlation analysis, perceived usefulness, perceived ease of use and compatibility have a high positive correlation with the behavioral intention towards mobile banking adoption. Further, relative advantage shows a moderate positive correlation and perceived risk shows a weak positive correlation on behavioral intention towards mobile banking adoption. Moreover, perceived usefulness, perceived ease of use, relative advantage, perceived risk and compatibility were statistically significant variables at 0.01 significance level since the p values of all independent variables were less than 0.01.

In accordance with the regression analysis, the R square value was 72.4% and it indicates that, the changes in behavioral intention towards mobile banking adoption can be explained by the dimensions of the independent variable such as perceived usefulness, perceived ease of use, relative advantage, perceived risk and compatibility. The rest of 27.6% of behavioral intention towards mobile banking adoption depends on other variables which has not been covered by the current research study.

Perceived usefulness depicts a positive and significant impact on behavioral intention towards mobile banking adoption due to using a mobile phone would help you avoid the restrictions when performing banking activities and mobile banking makes it simple to find the information and perform transactions. This has been validated by the researchers Ravichandran & Madana, 2016; Marinkovic & Kalinic, 2017 and others. Perceived ease of use also has a positive and significant impact on the behavioral intention towards mobile banking adoption and this as proved by the studies of Kazi & Mannan, 2013; Gu et al., 2009. Since the time and space restrictions that would ordinarily apply to physically conducting banking transactions using a

mobile device would be removed, relative advantage also has a positive and significant impact on behavioral intention towards mobile banking adoption and this has proved by the researchers of Hettiarachchi, 2014; Yunus, 2014 and so on. Perceived risk shows a negative and significant impact on behavioral intention towards mobile banking adoption with the reason of banking via a mobile device is dangerous because it is simple to lose or misplace the device. This can be verified using the studies carried out by Deventer et al., 2017; Rehman & Shaikh, 2020. Since utilizing mobile banking services has a significant impact on one's quality of life, interpersonal relationships, and other personal gains, compatibility also explicit a positive and significant impact on behavioral intention towards mobile banking adoption. This can be confirmed by the scholarly work performed by Kumari, 2015; Shaikh & Karjaluoto, 2015.

6. CONCLUSION

With the emergence of mobile banking, banks have enhanced their efficiency by reducing operating costs and time, while offering consumers unprecedented convenience to conduct banking transactions anytime, anywhere. Despite significant advancements in mobile banking services, recent research has focused on customer adoption. However, the effectiveness of mobile banking remains a topic of debate, particularly in Sri Lanka, where banking customers are still hesitant to use mobile phones for banking activities. Therefore, this research aims to identify the factors influencing behavioral intention towards mobile banking adoption, specifically in the Gampaha district of Sri Lanka. The dependent variable in this study is behavioral intention towards mobile banking adoption, with independent variables including perceived usefulness, perceived ease of use, relative advantage, perceived risk, and compatibility. Data were collected via an online questionnaire, with a sample comprising 310 mobile banking customers within the Gampaha district.

Reliability testing, frequency analysis, descriptive statistics, correlation analysis, and regression analysis were conducted as part of this research study. The results of the reliability analysis indicated that the questionnaire used to collect data was reliable. Descriptive statistics revealed that compatibility had the highest mean value, while perceived risk had the lowest mean value. Correlation analysis showed that all independent variables were positively correlated with the dependent variable and were statistically significant predictors of behavioral intention towards mobile banking adoption at a 1% significance level. Regression analysis served as the primary data analysis technique, revealing that perceived usefulness, perceived ease of use, relative advantage, and compatibility positively impacted behavioral intention towards mobile banking adoption, while perceived risk had a negative impact. Furthermore, all dimensions of the independent variable were statistically significant predictors of behavioral served as a 5% significance level.

Hence, it can be inferred that commercial banking customers have embraced mobile banking for several reasons, overcoming initial reluctance towards utilizing such services. Some of these reasons include the ability of mobile banking to overcome constraints associated with traditional banking activities, such as limitations in time and space. Additionally, mobile banking simplifies the process of accessing necessary information and learning how to conduct banking operations using a mobile phone, thereby enhancing convenience. Moreover, the use of mobile banking services can significantly improve the quality of life for individuals.

The study suggests that banks should tailor their mobile banking products and services to align with the preferences and needs of their customers, taking into account all dimensions of the independent variable. By doing so, banks can ensure that their services are successful and meet customer satisfaction. Given that all dimensions of the independent variable significantly influence behavioral intention towards mobile banking adoption, this approach is likely to yield positive outcomes. Additionally, since perceived risk has a negative impact on behavioral intention, banks can take proactive measures to mitigate risks. For instance, banks can monitor mobile banking transactions regularly, implement new and robust security policies to safeguard customers' interests, and prevent instances of fraud or injustice associated with mobile banking services. Such actions can help reduce the perceived risk level and enhance trust and confidence among customers.

This study focused solely on customers residing in urban regions, thereby limiting its generalizability. Future research could address this limitation by including a more balanced representation of both rural and urban populations. Additionally, the study exclusively targeted consumers of domestic, licensed commercial banks, suggesting an opportunity for future researchers to explore behavioral intentions towards mobile banking adoption among customers of commercial banks, including both domestic and foreign institutions. Furthermore, the study utilized only five dimensions of independent variables, such as perceived usefulness, perceived ease of use, relative advantage, perceived risk, and compatibility. To address this limitation and provide avenues for future research, additional variables such as perceived cost of use, need for interaction, and trust could be considered. These suggestions highlight the limitations of the current study and offer valuable insights for future research endeavors in this field.

REFERENCES

- Aboelmaged, M., & Gebba, T. (2013). Mobile banking adoption: an examination of technology acceptance model and theory of planned behavior. *International Journal of Business Research and Development 2 (1)*.
- Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Williams, M. D. (2016). Consumer Adoption of Mobile banking in Jordan: Examining the Role of Usefulness, Ease of Use, Perceived Risk and Self-efficacy. *Journal of Enterprise Information Management*, 118-139.
- Barnes, S. J., & Corbitt, B. (2003). Mobile banking: concept and potential. International Journal of Mobile Communications, 273-288.

- Bertrand, M., & Bouchard, S. (2008). Applying the technology acceptance model to VR with people who are favorable to its use. *Journal of Cyber Therapy & Rehabilitation*, 1(2), 200-210.
- Bouwman, H., Carlsson, C., Castilo, F., & Waldon, P. (2007). Barriers and drivers in the adoption of current and future mobile services in Finland. *Journal of Telematics and Informatics* 24 (2), 145-160.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *Management Information Systems Research Center, University of Minnesota*, 319-340.
- Devaraj, S., Fan, M., & Kohli, R. (2002). Antecedents of B2C Channel Satisfaction and Preference: Validating e-Commerce Metrics. *Information Systems research*.
- Deventer, M. V., Klerk, N. D., & Dye, A. B. (2017). Antecedents of attitudes towards and usage behavior of mobile banking amongst Generation Y students . *Banks and Bank Systems, Volume 12 (2),* 78-90.
- Dwivedi, Y. K., & Irani, Z. (2009). Understanding the Adopters and Non-adopters of Broadband. *Communication of the ACM*, *52*(1), 122-125.
- Frambach, R., & Schillewaert, N. (1999). Organizational innovation adoption: A multi-level framework of determinants and opportunities for future reserarch. ISBM report 29 (1), 1-40.
- Gerrard, P., & Cunningham, J. B. (2003). The diffusion of Internet banking among Singapore consumers. *International Journal of Bank Marketing, Volume 21* (1), 16-28.
- Goyal, S. (2012). *Connections: an introduction to the economics of networks*. Princeton Ubiversity Press, 2012.
- Gu, J. C., Lee, S. C., & Suh, Y. H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications*, 36, 11605 – 11616.
- Gu, J. C., Lee, S. C., & Suh, Y. H. (2009). Determinants of behavioral intention to mobile banking. *Elsevier*, 11605-11616.
- Hettiarachchi, H. (2014). Factors affecting to customer adoption of Internet Banking. *Kelaniya Journal of Management 2 (2).*
- Kahandawa, K., & Wijayanayake, J. (2014). Impact of Mobile Banking Services on Customer Satisfaction: A Study on Sri Lankan State Commercial Banks. *International Journal of Computer and Information Technology (ISSN: 2279* - 0764), 546-552.

- Kahandawa, K., & Wijayanayake, J. (2014). Impact of Mobile Banking Services on Customer Satisfaction: A Study on Sri Lankan State Commercial Bank. International Journal of Computer and Information Technology (ISSN: 2279-0764), Volume 03.
- Karjaluoto, H., Riquelme, H., & Rios, R. (2010). The moderating effect of gender in the adoption of mobile banking. *International Journal of bank marketing*.
- Kazi, A., & Mannan, M. (2013). Factors affecting adoption of mobile banking in Pakistan. International Journal of Research in Business and Social Science (2147-4478) 2 (3), 54-61.
- Kumari, P. (2015). Customer adoption and attitudes in mobile banking in Sri Lanka. International Journal of Economics and Management Engineering 9 (12), 4355-4359.
- Lee, & Chung. (2009). Complexity, Diversity and Dynamics. Science 326 (5956), 1112-1115.
- Lin, H. (2011). An empirical investigation of mobile banking adoption: The effect of innovation attributes and knowledge-based trust. *International Journal of Information Management 31 (3), 252-260.*
- Liu, Y., & Li, H. (2010). Mobile Internet Diffusion in China: An empirical study. Industrial Management & Data Systems, 110(3), 309-324.
- Lules, I., Omwansa, T. K., & Waema, T. M. (2012). Application of Technology Acceptance Model (TAM) in M-Banking Adoption in Kenya. *International Journal of Computing and ICT Research*, 6(1), 31-43.
- MacVaugh, J., & Schiavone, F. (2010). Limits to the diffusion of innovation: A literature review and integrative model. *European Journal of Innovation Management*, 13(2), 197 221.
- Marinkovic, V., & Kalinic, Z. (2017). Antecedents of customer satisfaction in mobile commerce. Online Information Review, 2017.
- Mazhar, F., Rizwan, M., Fiaz, U., Ishrat, S., Razzaq, M., & Khan, T. (2014). An investigation of factors affecting usage and adoption of internet & mobile banking in Pakistan. *International Journal of Accounting and Financial Reporting 4 (2), 478.*
- McKnight, D. H., Cummings, L. L., & Chervany, N. L. (1998). Initial trust formation in new organizational relationships. *Academy of Management Review*, 23(3), 473-490.

- Mostafa, S. (2010). Shape-dependent catalytic properties of Pt nanoparticles. *Journal* of the American Chemical Society 132 (44), 15714-15719.
- Priya, R., Gandhi, A. V., & Shaikh, A. (2018). Mobile banking adoption in an emerging economy: An empirical analysis of young Indian consumers. *Benchmarking: An International Journal.*
- Ravichandran, D., & Madana, A. H. (2016). Factors Influencing Mobile Banking Adoption in Kurunegala District. *Journal of Information Systems & Information Technology (JISIT)*.
- Rehman, Z. U., & Shaikh, F. A. (2020). Critical Factors Influencing the Behavioral Intention of Consumers towards Mobile Banking in Malaysia. *Engineering, Technology and Applied Science Research, Volume 10(1)*, 5265-5269.
- Rogers, J. (2003). Adoption to mobile banking usage.
- Roy, S. K., Balaji, M. S., Kesharwani, A., & Sekhon, H. (2017). Predicting internet banking adoption in India: A perceived risk perspective. *Journal of Strategic Marketing, Volume 25 (5,6)*, 418-438.
- Shaikh, A., & Karjaluoto, H. (2015). Mobile banking adoption: A literature review. *Telematics and Informatics 32 (1), 129-142.*
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View, Vol. 27 (3) . *MIS Quarterly*, 425-478.
- Yunus, M. (2014). Diffusion of innovation, consumer attitudes and intentions to use mobile banking. *Information and Knowledge Management* 4 (10), 12-18.