

Factors contributing to the adoption of Mobile Banking in Sri Lanka: Special reference to Sampath Bank in Ampara District

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Abstract: The banking system in recent decades is moving fast towards capitalizing on new technologies and offering better customer services. Banks are moving out of the traditional brick-and-mortar operating style, extending their reach to the customers by M-commerce. This transition increases efficiency of banks financial transactions, removing geographical and time limitations. Despite the latest developments in information and communication technology, the demand for Internet banking in Sri Lanka is limited. This research study examines the factors that affect Mobile banking adoption in Sri Lankan context and the relationship between these factors. 275 self-administrative questionnaires were distributed among the respondents of Sampath banks in Ampara district and 189 have been identified as Mobile banking users. Descriptive analysis, Correlation analysis and Regression analysis have been used to analyze, how Perceive Usefulness (PU), Perceived Easy to Use (PEU), Cost (CT), Trust (TR) and Perceive Risk (PR) are influencing in Mobile Banking adoption. The study revealed that the key determinants are having positive and significant influence in the adoption of Mobile Banking. The R squared value of the model was 0.631. It illustrates that the dependent variable is described by 63% through independent variables. The findings of this study would assist to the stakeholders with a better understanding of customer perceptions of Mobile banking services. Furthermore, the findings of this study would help them in marketing new strategies in promoting the Mobile banking services in the area of study.

Keywords: Mobile Banking, Perceive Usefulness, Easy to Use, Cost, Perceived Risk, Trust, Technology Acceptance Theory, Sri Lanka.

1.1 Introduction

In 1988, Sampath Bank started to operate a multi-point network of automated teller machines (ATMs) for the first time in the country, as "Sampath Electronic Teller" or "SET". Then, with the popularity of ATM banking introduced MasterCard in 1989, PBU (Personal Banking Unit) and Uni-Banking System. The bank was the first to introduce debit cards in South Asia in 1997 and was the first in Sri Lanka to issue a debit card instantly at the time of opening an account. The first ever Cheque Imaging & Truncating (CIT) site in Sri Lanka was launched by Sampath Bank in 2004. Since 2009, the bank is the third largest private sector bank in Sri Lanka in terms of total assets [22].

Further, in 2017 euro-money awards of excellence received almost 1,500 submissions from banks in an awards programme that covers 20 global awards, more than 50 regional awards, and best bank awards in close to 100 countries. Sampath Bank recognized as the winner of "Most Innovative Bank" at Lankapay Technnovation Awards 2017. This award is a recognition of outstanding contributions to the development of banking industry in Sri Lanka coupled with the bank's contribution throughout the period towards the industry success [22]. According to the report of [7], there are 25 listed commercial banks are in operations in Sri Lanka out this, 12 local banks are already adopted mobile/internet/online banking facilities [22]. Even though majority banks have pumped huge amount of money in order to provider quality, time saving and less cost effective service in Sri Lanka, but the amount of customers using this service is very poor comparing with other countries like India, Pakistan, Malaysia and Singapore. Most of the customers who use these services are currently using to pay their bill, withdraws money and check their balance [20].

1.2 Internet Penetration and Smart Phone usage in Sri Lanka

Sri Lanka has recorded strong growth in Internet penetration and smart phone usage. The rate of internet penetration of Sri Lanka has been recorded around 35% in the year 2017 [3]. According to Department of census and statistics, Sri Lanka has the highest literacy rate than the other South Asian countries. At the same time, the average income of Sri Lankans is higher than that of India, Pakistan, Bangladesh, and Afghanistan; this move will drive online business organizations up to a strong position in this region. However, according to the information of the Central Bank of Sri Lanka, there is a notable upward trend, as in September 2017; there are 1,515,299 active credit cards in use. Of these, 41,289 are accepted only locally, while 1,474,010 (over 94%) are accepted globally. According to the above indication, Sri Lanka is witnessing a massive surge in computer usage and internet penetration.

Sri Lanka's total internet connections grew 78.4 per cent during 2017 [26] largely supported by growth in mobile internet usage, a Central Bank report said. "Active usage of Information and Communication Technology (ICT) services in economic activities such as e-banking, mobile banking, e-bus ticketing, and mobile points of sale (POS) has also increased". This favorable situation makes banking sectors to extend the online services towards Sri Lankan customers. At present, most of commercial banks have introduced their mobile banking facility to customers and most of the telecommunications sectors also have started fund transfer services to their subscribers via mobile technology [26].

2.1 Literature Review of the Study

The banking system in recent decades is moving fast towards capitalizing on new technologies and offering better customer services. Banks are moving out of the traditional brick-and-mortar operating style, extending their reach to the customers by M-commerce [16]. This transition increases efficiency of banks financial transactions, removing geographical and time limitations. Mobile banking (m-banking) is among the latest in a series of recent mobile technological wonders [14]. Although automated teller machine (ATM), telephone, and Internet banking offer effective delivery channels for traditional banking products, but as the newest delivery channel in many developed and developing countries, M-banking is likely to have significant effects on the market. Despite such benefits, the use of mobile phones or tablets to conduct banking transactions or access financial information is not as widespread as might be expected [13],[15] & [19]. Mobile Banking (M-Banking) is as an application of m-commerce that enables customers to access bank accounts through mobile devices to conduct transactions such as checking account status, transferring money, making payments, or selling stocks [1] & [14]. The wide spread of mobile communication technology has perpetuated innovation in M-Banking. Since the number of cell-phones is more than PCs, m-banking has become more popular than e-banking among bankers. Also, mobile phones enhance the quality of services because clients can perform their financial jobs in every time and place [10].

Mobile banking, which is also referred to as cell phone banking is "the use of mobile terminals such as cell phones and personal digital assistants (PDAs) to access banking networks via the wireless application protocol (WAP)". The mobile banking is similar to Internet banking in that it provides a fast and convenient way of performing common banking transactions [17]. According to [19], suggest that a number of things can happen on mobile detection such as redirecting to an app store, redirection to a mobile banking specific website or providing a menu of mobile banking options for the user to choose from. Mobile banking is an emerging fact of electronic banking that, unlike traditional banking service which offer very limited functions, that for a rich platform on automated banking and other financial services, wireless services and delivery channels that offer increased value to customers by providing 'any time anywhere' access to banking services [13]. Mobile banking involves conducting account balance and transaction history inquiries, funds transfers, bill payments, stock trades, portfolio management, as well as insurance ordering, via a mobile device [13] and also argued that the complexity of service models and the convergence of technologies and services have resulted in a limited research in the area of consumer adoption of Mobile banking. Most previous studies included Mobile banking as part of a broader research focus, for example, technology-based self-service (TBSS), Self-Service Technologies (SST) [5]. However, one of the key attitudinal models in the technology acceptance literature is "The Technology Acceptance Model (TAM)" [8], which was developed with the purpose of explaining why users accept or reject information technology [8]. TAM identifies the causal linkages between two key beliefs, perceived usefulness and perceived ease of use, and the attitude and intention toward, as well as actual technology adoption behavior [8]. After the, The Self-Service Technology (SST), attitude to use model to extend the TAM to include two additional antecedent beliefs, need for interaction and risk, in the context of SST adoption. The literature review provides further discussion about the technology acceptance framework for mobile banking. In addition to it reviews the factors within the framework. It includes perceived usefulness, perceived easy to use, perceived risk, perceived cost and compatibility. Risk, cost and compatibility are added to extend the technology acceptance model [8] to develop the research model to investigate factor affecting to adopt mobile banking service of customers.

Despite such benefits, the use of mobile phones or tablets to conduct banking transactions or access financial information is not as widespread as might be expected [21] & [5]. Automatic Teller Machine (ATM) may be the most popular service used by Sri Lankan banking customers. ATM provides basic banking services 24 hours per day, 365 days per years. Customers can deposit or withdraw cash, transfer funds from one account to another, inquire about account balance and request for cheque books and account statement using ATM. Bank executives report that ATM services are extensively used by their customers, and over 80% of customers possess ATM cards[7]. Despite such benefits, the use of mobile phones or tablets to conduct banking transactions or access financial information is not as widespread as might be expected [20] & [9]. The high level of penetration of mobile phone usage and the enormous potential of m-banking, the adoption of m-banking

services in Sri Lanka is not as expected. Majority of the customers still prefer banking in traditional ways. Thus there is a need to study and understand users' acceptance of mobile banking services in order to identify the factors affecting hindering to use M-banking.

3.1 Theoretical Framework and Research Model

3.1.1. Perceive Usefulness and Perceive Easy to Use in Mobile Banking

Since the late 1980s, technology adoption research focused on exploring the determinants of user's intention to use new technology. Therefore, many theories have been developed to address information technology service adoption issues. Technology Acceptance Model (TAM) is the one of the best theory that address this issue [8], other than the Theory of Reasoned Action, the Unified Technology Acceptance User Technology (UTAUT) [27] and Innovation Diffusion Theory (IDT) by [28]. This study, based on the technology acceptance model which introduced by [8]. TAM argued that Perceive Usefulness (PU) and Perceive Easy to Use (PEOU) are the two most important factors which explaining the individual user's adoption intention and actual usage [8]. [8] defined perceive usefulness as, "the degree to which a person believes that using a particular technology-based service will enhance his or her job performances". And also perceived easy to use define as, "the degree to which the person believes that using the system will be free of effort". TAM has been extensively tested and widely accepted mode. In addition to that TAM can be modified or extended using other theories or constructs. In turn, attitude is influenced by both the perceived usefulness of the system and by the perceived ease of use. Later, [27] included the construct subjective norm in the original model and called it TAM2. [29] Combined TAM and Innovation Diffusion Theory by [28], [29] combined TAM2 and Innovation Diffusion Theory (IDT) by [28], in a study they focused on investigating the drivers of mobile commerce. The PU and PEOU constructs from the TAM2 model was combined with perceived risk and cost constructs. The compatibility constructs were added to the research model from IDT [29]. UTAUT model is a one of main theory which use to address the technology based service behavior intentions. For a better understanding of the most suitable model for this study, UTAUT model is discussed. UTAUT was proposed by [30] after reviewing the following eight IT adoption theories: TRA, TAM, the Motivational Model, TPB, the PC Utilization Model (PCUM), IDT, the Social Cognitive Theory (SCT), and the Integrated Model of Technology Acceptance and Planned Behavior. In UTAUT, the factors influencing the adoption and usage of information technology include: performance expectancy, effort expectancy, social influence and facilitating conditions [30]. UTAUT is considered to be the most important theory for IT adoption research in Information Systems (IS) fields in the future. The model has been empirically examined and found to outperform the other eight individual models, including the TAM model. However, UTAUT is not perfect. To apply UTAUT in certain special IT applications such as mobile banking, modification and revision is needed as recommended by [30]. Based on the above discussions the following hypothesis are developed:

H₁: There is a positive relationship between Perceive Usefulness and the adoption of Mobile banking.

H₂: There is positive relationship between Perceive easy to use and the adoption of Mobile banking.

3.1.2 Perceived Risk in Mobile Banking

Most of technology acceptance studies used perceived risk as their considerable factor [14], [23], [10], [4] & [12]. These factors provided more in depth understanding of the characteristics of risks regarding Internet banking [14]. Mobile banking also considered an extension of Internet banking. Thus, a similar set of risk factors can be consequential for mobile banking by using the five risk facts as used by [14], as a basis: performance risk, social risk, financial risk, time risk and security risk. A study by [23] investigated consumer adoption of mobile banking, according to their findings; they proved perceived risk has a significant negative effect on intention to use Mobile banking.

H₃. There is a positive relationship between Perceived Risk and the adoption of Mobile banking.

3.1.3 Perceived Cost in Mobile Banking

According to [24] define perceived cost as, "the extent to which a person believes that using mobile banking will cost money" [15]. The cost includes the transaction cost in the form of bank chargers, mobile networking charges for connecting to the internet, sending SMS and mobile device cost etc. In the study of [12] conducted to young customer adoption of mobile banking they prove perceived cost has not significant influence for adoption of mobile banking.

H₄. There is a positive relationship between Cost and the adoption of Mobile banking.

3.1.4 Trust in Mobile Banking

Customer trust is a most critical factor for success of every system. More studies that investigate the factors which affect to accept and adopt the technology-based services are included trust as a key motivator and the study was proved that trust has significant influence to adopt mobile banking service [17].

H₅. There is a positive relationship between Trust and the adoptions of Mobile banking.

Mobile banking is the most recent financial channel and several authors have further identified the benefits of mobile banking in terms of ubiquity coverage, flexibility, interactivity, and with greater accessibility compared to conventional banking channels such as Automated Teller Machine (ATM), and non-mobile banking. Therefore, this research aimed to bridge the gap by extending the Technology Acceptance Model (TAM) originated by [8] to investigate the adoption of mobile banking in Sri Lankan context. Most Sri Lankan commercial banks claim that they provide the mobile banking services as a competitive weapon, rather as a competitive necessity. Hence, the purpose of this study is to examine the factors that influence the adoption of Mobile banking in Sri Lanka, in particular in Ampara district.

3.2 Theoretical Framework and Research Model

The theoretical model for this research has been developed mainly based on the Technology Acceptance Model. The key factors identified are Usefulness, Ease of use, Cost, Perceive risk, and Trust of the users. The five factors mentioned above are hypothesized to have a direct effect on influencing the adoption of mobile banking customers. Technology Acceptance Model (TAM) tries to establish a relationship and it also describes the intention of users and how users are influenced by a product or service. It emphasizes the importance of Perceived Usefulness and Ease of use in mobile bank adoption, Perceived risk, Cost and Trust also has some serious points to be considered on mobile banking. In literature review, it has been highlighted that the user's adoption on above key factors are mainly affected to the adoptions of mobile banking.

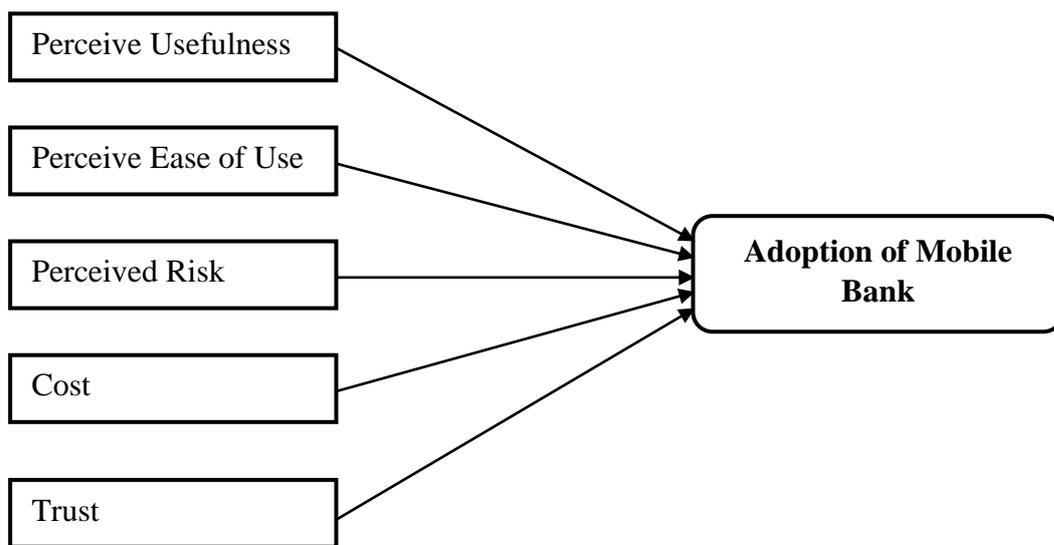


Figure 1: Theoretical Framework

4. Research Methodology

The population of the study was the Mobile banking consumers living in the Ampara district, Eastern Part of Sri Lanka. Simple random sampling method was used for selecting the sample of the study. Thereby, a total of 275 questionnaires were distributed and 256 (93%) were returned. However, only 189 were found usable for data analysis [31] & [32]. Several items were used to measure all variables and for each item, a corresponding Likert Scale with anchors ranging from 1 as “Strongly Disagree” and 5 as “Strongly Agree” was used. For each item listed, the respondents were requested to mark any of the five options given. The collected data were analyzed using statistical computer programs known as SPSS Version 21. The study first examined the measurement model to test reliability and validity, and followed by the multiple linear regression analysis was to test research hypotheses and research model of this study.

4. Data Analysis and Presentations

4.1 Demographic Profile of the respondents

The following section present the demographic characteristics of the respondents.

Table 4.1. Demographic characteristic of the respondents

Description	Frequency	Percentage
Gender		
Male	155	82%
Female	34	18%
Age		
18 - 25	50	27%
26 - 35	79	42%
36 – 45	60	31%
Educational Level		
Ordinary Level (O/L)	16	9%
Advance Level	94	50%
Bachelor Degree	67	35%
Master Degree	12	6%
IT experience		
1 – 5 years	103	55%
6 – 10 years	73	38%
11 – 15 years	13	7%

Table 4.1 above describes the demographic characteristic of the respondents participated in this survey. Gender is concerned, Most of the participants are Males, it is around 155 (55%)and Female participants are 34 (18%). It is important to consider age groups of participants in this study. The majority of the respondents are from the age group of 26 to35. It is around 79 (42%).50 (27%) respondents are from 18 to 25 years old, while 60 (31%) of the participated respondents are in the age group of 36 to 45. As far as the Educational level is concerned, there are around 16 (9%) of the respondents are holding G.E.C. Ordinary level qualifications, while around 94 (50%) of the respondents are studied up to Advanced level. Bachelor degree holders are identified as 67 (35%) who participated in this survey study while only around 12 (6%) of the respondents are holding Master degree qualifications among the respondents. Information Technology (IT) experience is concerned, around 103 (55%) of the respondents are having 1 to 5 years of experience while around 73 (38%) of the respondents are having 6 to 10 years of IT experience. Others around 13 (7%) of the respondents are having 11 to 15 years of experience in this survey study. This would be considered as preliminary pass for accessing and using mobile banking. Even though the success of the study will be depending on the real users of Mobile Banking. The next section describes the users and non-users of Mobile banking in Sri Lanka, in particular Sampath Bank, Ampara district.

4.1.1General Behavior of Respondents in accessing Mobile Banking Facilities

To determine whether the respondents use smart phones and bank accounts, the researcher was requested to indicate whether they currently use a smart phone and maintain a bank account. According to survey results indicates that 100% respondents are currently maintaining a bank account in Sampath Bank in Ampara district.

4.1.2 Adopter and Non-adopters of Mobile Banking Services

To determine whether the respondents were currently using the Mobile banking services, the respondents were asked to indicate whether they currently use or intend to use Mobile banking services. Based on the above questions, three categories of customers are identified in this study.

Table 4.2: Use/Intention to use Mobile Banking Facilities

Description	Frequency	Percentage
Customers using Mobile banking facilities.	189	74%
Customers have Intention to use Mobile Banking facilities in the near future.	46	18%
Customers have no intention to use Mobile banking facilities in the near future.	21	8%

The first category of the respondents have been identified as the users of Mobile banking services in this survey study. It is around 189 (74%) respondents, while the second category of the respondents have been identified as non-users of Mobile banking service provided by Sampath Bank. It is around 46 (18%) of the respondents. At the same time, only 21 (8%) of the respondents expressed their intention that in the near future they intention to use Mobile banking services provided by Sampath Bank. Hence, the above statistics indicates that there is a high potential for Mobile banking service providers in Sri Lanka, in particular in Ampara district.

4.2 Reliability and Validity of the analysis

Validity and reliability are two important steps that determine the quality and usefulness of data collected. Generally, the higher value of Cronbach’s Alpha illustrates a higher reliability. For reliability test, the normal standard value is 0.7. Therefore, if the value of alpha more than 0.7, then a high reliability has been proved[3]. For the five constructs: Perceive Usefulness (PU), Ease of Use (PEU), Cost (CT), Trust (TR), Perceived Risk (PR) and ADP. Cronbach’s Alpha values of these constructs are 0.808, 0.729, 0.815, 0.810, 0.701 and 0.806 respectively.

Table 4.3: Reliability of the constructs

Constructs	Cronbach’s Alpha	N of Items
PU	0.808	5
PEU	0.729	5
CT	0.815	6
TR	0.810	5
PR	0.701	4
ADP	0.806	5

4.3 Validation Test of the Constructs

This section reveals the results of the factor analysis based on both independent and dependent variables. As shown in Table 4.4 below, the KMO values for both the independent and dependent variables exceeded the threshold value of 0.6. Discriminant and convergent validity was measured by means of average variance extracted (AVE). Convergent validity is adequate when the AVE value of each construct exceeds 50% [33]. As shown in Table 4.4 below, the AVE values for all of the study’s constructs were well above the threshold. Consequently, both discriminant and convergent validity was acceptable in this study. Thus, the scales used in this study are both reliable and valid.

Table 4.4: Validity of the constructs

Constructs	Kaiser-Meyer-Olkin (KMO)	Average Variance (AVE)	No of Items
PU	0.752	57%	5
PEU	0.717	51%	5
CT	0.843	52%	6
TR	0.761	57%	5
PR	0.714	52%	4
ADP	0.749	57%	5

4.4. The Analysis of Correlations

The Correlation analysis was done using the results obtained for each constructs. The effectiveness of the analysis is shown in Table 4.4. The table indicates that PU, PEU, CT, TR, and PR are significantly correlates with ADP at 0.01, and the items were proven to be internally reliable and demonstrated a sufficient level of validity. The next section explain about hypothesis testing.

Table 4.5: Correlation among all the constructs

		PU	PEU	CT	TR	PR	ADP
PU	Pearson Correlation	1	.757**	.502**	.397**	.621**	.658**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
PEU	Pearson Correlation	.757**	1	.456**	.459**	.501**	.747**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
CT	Pearson Correlation	.502**	.456**	1	.734**	.841**	.535**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
TR	Pearson Correlation	.397**	.459**	.734**	1	.737**	.540**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
PR	Pearson Correlation	.621**	.501**	.841**	.737**	1	.533**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
ADP	Pearson Correlation	.658**	.747**	.535**	.540**	.533**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	

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

4.5 Regression Analysis and Hypothesis Testing

In statistical modeling, regression analysis is a set of statistical processes for estimating the relationships among variables. Regression analysis is also used to understand which among the independent variables are related to the dependent variable, and to explore the forms of these relationships. Multiple regression analysis is used to see if there is a statistically significant relationship between sets of variables[18]. This section presents the results of the linear regression analysis was used to test research hypotheses. Based on Table 4.6, it presents an assessment of the possible linear relationships that might exist between the dependent variable ADP and each such independent variable as PU, PEU, CT, TR and PR. The following assumed hypothesizes are test and discussed below.

Table 4.6 Analysis of Coefficient

Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Coefficients Beta		
1	(Constant)	.063	.215	.294	.769
	PU	.246	.093	.209	2.629
	PEU	.565	.085	.484	6.678
	CT	.207	.104	.174	1.992
	TR	.238	.083	.211	2.879
	PR	-.172	.120	-.142	-1.432

4.5.1. Hypothesis Testing

4.5.1.1 Perceived Usefulness (PU)

In Table 4.6 implies that the p-value for PU is less than 0.05 and the coefficient value is 0.246. Hence ADP depends on PU. Therefore, the hypothesis was accepted and there is a significant relationship between PU and ADP. Hence, it is confirmed that PU is identified as one of the major factors in order to adopt Mobile banking in Sri Lanka, in particular among Ampara district Sampath bank customers.

Thereby accepting H1 that "There is a significant relationship between the Perceived Usefulness (PU) and the Mobile Banking adoption.

4.5.1.2 Perceived Ease of Use (PEU)

In Table 4.6 implies that the p-value for PEU is less than 0.05 and the coefficient value is 0.565 which is the highest value among other factors. Hence ADP depends on PEU. Therefore, the hypothesis H2 was accepted and there is a significant relationship between PEU and ADP. Hence, it is confirmed that PEU is identified as one of the major factors in order to adopt Mobile banking in Sri Lanka, in particular among Ampara district Sampath bank customers.

Thereby accepting H2 that “There is a significant relationship between the Perceived Ease of Use (PEU) and the Mobile Banking adoption.

4.5.1.3 Cost (CT)

In Table 4.6 implies that the p-value for CT is less than 0.05 and the coefficient value is 0.207. Users realized that mobile banking is not expensive and the tendency of cost is natural. Hence ADP depends on CT. Therefore, the hypothesis H3 was accepted and there is a significant relationship between CT and ADP. Hence, it is confirmed that CT is identified as one of the major factors in order to adopt Mobile banking in Sri Lanka, in particular among Ampara district Sampath bank customers.

Thereby accepting H3 that “There is a significant relationship between the Cost (CT) and the Mobile Banking adoption.

4.5.1.4 Trust (TR)

In Table 4.6 implies that the p-value for TR is less than 0.05 and the coefficient value is 0.238. This implies that users realized that service providers are trustworthy. Hence ADP depends on TR. Therefore, the hypothesis H4 was accepted and there is a significant relationship between TR and ADP. Hence, it is confirmed that TR is identified as one of the major factors in order to adopt Mobile banking in Sri Lanka, in particular among Ampara district Sampath bank customers.

Thereby accepting H4 that “There is a significant relationship between the Trust (TR) and the Mobile Banking adoption.

4.5.1.5 Perceived Risk (PR)

In Table 4.6 implies that the p-value for PR is 0.154 which is greater than 0.05 and the coefficient value is -0.172. This indicates that users have perceived Mobile banking service have significant risk. Hence ADP does not depends on PR. Therefore, the hypothesis H5 was not accepted and there is an insignificant relationship between PR and ADP. Hence, it is confirmed that PR is not identified as one of the major factors contributing in order to adopt Mobile banking in Sri Lanka, in particular among Ampara district Sampath bank customers.

Thereby rejecting H5 that “There is an insignificant relationship between the Perceived Risk (PR) and the Mobile Banking adoption.

4.6 Multiple Linear Regression Analysis to explain Model fitting

Regression analysis helps to identify, how the dependent variable changes when there is a change in independent variables, the researcher has built up several hypotheses to prove the relationship in between adoption of Mobile banking with PU, PEU, CT, TR, and PR. Regression analysis is the ideal tool to identify the impact or significance of one variable to another. The Multiple Linear Regression (MLR) analysis was carried out to investigate the impact of these five independent variables to the dependent variable.

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.794 ^a	.631	.621	.42054	1.286

The Table 4.7, presents the model fitting of this study. The R-square value was 0.631. The Adjusted R-square value was 0.621. This implies that around 63% of the variation in Mobile Banking adoption by R-squared might be estimated and predicted by this Model in Sampath Bank in Ampara District and can be explained by the factors PU, PEU, CT, TR and PR in this study. Hence it can be concluded that model is accurate and it can be used for further analysis.

4.6.1 ANOVA in Multiple Regression Analysis

Table 4.8 ANOVA TEST

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	55.303	5	11.061	62.541	.000 ^b
	Residual	32.364	183	.177		
	Total	87.668	188			

The p-value from the ANOVA Test in 4.8, is less than 0.05, which means that at least one of the five variables can be used to model mobile banking adoption in Sampath Bank Ampara district in Sri Lanka and also it can be assumed that there is a linear relationship between the independent and dependent variables is not violated.

4.6.2 Summary of the Hypothesis testing

Table 4.9: Summary of the study

Hypothesis	η^2	t	p-value	Outcome
H1: There is a significant relationship between the Perceived Usefulness (PU) and the Mobile Banking adoption.	0.246	2.629	0.009	Supported
H2: There is a significant relationship between the Perceived Ease of Use (PEU) and the Mobile Banking adoption.	0.565	6.678	0.000	Supported
H3: There is a significant relationship between the Cost (CT) and the Mobile Banking adoption.	0.207	1.992	0.048	Supported
H4: There is a significant relationship between the Trust (TR) and the Mobile Banking adoption.	0.238	2.879	0.004	Supported
H5: There is a significant relationship between the Perceived Risk (PR) and the Mobile Banking adoption.	0.172	1.432	0.154	Not Supported

4.7 Discussion

The main objective of this study is to examine the major factors contributes to the successful adoption of Mobile banking services in Sri Lanka. In this research, it was revealed that PU, PEU, CT, and TR has significant and positive impact on Mobile banking adoption in this study. In table 4.7, the R-square value was 0.631, which means that around 63% of the variation in Mobile banking adoption might be estimated and predicted by the model in the Ampara district mobile banking users and can be explained by the factors. At present, Mobile communications is not considered as luxurious as it has reached the grass root of the society where everybody could own a Mobile phone. Mobile phones have created a platform to expand commercial transactions in a very easy manner and have created a wide array of business opportunities through the expansion of wireless communication. Therefore, Mobile banking has been identified as one way of expanding banking services. There have been a number of products introduced by Sri Lankan banks to encourage mobile banking. However, the success of them remains as an issue. Therefore, in Sri Lankan context, this study shows that there is significant relationship of among the factors in order to adopt Mobile banking service that motives towards the behavior of the users where this was lacking in previous studies in this area in the context of Sri Lanka. The results further revealed that in Sri Lankan context, customers' will adopt Mobile banking services when it is user-friendly, perceived mobile banking to be easy to use, considering the cost of service providers and when there is a trust. Further, the result show that perceived risk has insignificant influence to adopt the mobile banking services in this context. Therefore, the Banking sectors have to focus on this factor and take necessary actions to make this factor significant in this context in order to entice more customers in future.

4.8 Research Contribution

After reviewing the findings of this study, there are several important implications suggested for banks, service developers and software engineers in order to provide better strategic insight to design and implement Mobile banking services that yield higher consumer acceptance in Sri Lanka. Building customer awareness and informing the public on the use of M-banking mode is required. There should be perfect marketing campaigns by Mobile banking service providers; banks and mobile service providers, specially targeting the rural communities. In order to enhance customers, perceive easy to use in Mobile banking, Service providers must be willing to engage in massive local education to ensure trouble free usage and secure good benefaction. The results showed that only 74% the respondents now use the mobile banking service and 18% do not use mobile banking, but 8% of non-users have to intention to buy mobile banking service in future in this study and also most of the respondents uses Mobile phones and having bank accounts. This is a great marketing opportunity for banks and service providers to enhance their market space. Service providers should introduce local languages on the mobile banking application rather than just English and in order to cater for illiterate, less educated people there should be voice-based service support. There should be increased collaboration between banks and mobile service providers in terms of M-banking services to the rural communities. This will effectively reduce

costs of providing the Mobile banking services because partnerships would mean shared costs of operation, which will ultimately reduce the costs incurred by users, which currently is quite high.

4.9 Conclusion of the Study

This research contributes the information technology acceptance research. Technology Acceptance Model successfully applied in this study. The study successfully identified the level of influences created by key factors to adopt the Mobile banking services. Further, this research has provided valuable knowledge and information to Banks, Mobile banking service providers, Service developers, and Software engineers to enhance consumers' intention to use Mobile banking services in future. Furthermore, the limitations of this research are mainly on the sample and research method. The survey was mainly conducted Ampara district and should be extended for other district as well. Second, in this study conducted the survey focused on users' perception rather than their actual behavior, regardless of the subjectivity of data. The effect of demographic variable such as gender, race and culture were not intensively explored in this study. This phenomenon may require to future researches to identify the influence of demographic characteristics to accept and adopt the new services and future research may consider qualitative approaches including grounding theory or case study research to gain in depth understanding of factors that influence mobile banking adoption. Finally, future research may consider the adoption of Mobile banking by both governmental and private banks and draws differences in adoption rate, mode and type of services.

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