

Consumer Usage and Adoption of E-Banking

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ABSTRACT

Rapid advancements in technological environment spreads its unbounded services to all the sectors. Banks are now using the online platforms to deliver its services to their users as it helps in several ways. Especially it enables to use the banking services without any time limitations. The attractiveness provided by e-banking is encouraging the adoption of e-banking among customers. Thus, this study aims to investigate the factors affecting customers' intension towards the acceptance of internet banking in Manmunai North Divisional Secretariat, Batticaloa. The objective of this study is to identify the level, relationship and impact of customer usage of e-banking and adoption of e-banking. Cross-Sectional Design was used for data collection. The target populations for this study are bank consumers from Manmunai North Divisional Secretariat, Batticaloa. 200 bank's consumers were selected as sample. Convenience sampling used to select the sample to conduct this study. For the research information interval measures were used with "Likert's five points rating Scale". The Statistical Package for Social Sciences (SPSS 19.0 Version) used to evaluate the data received. The results found that levels of all selected variables are in high level. Further according to the results, factors perceived usefulness, perceived ease of use, trust and government support has a significant relationship and impact on adoption of e-banking. The study results will be useful for bankers and bank management to enhance the adoption of e-banking.

Keywords: Electronic Banking, Customer usage of e-banking, Adoption of e-banking

1.0 INTRODUCTION

1.1 Background of study

The continuous developing nature of the technologies providing new features in many fields. As the competition among organization continues to be grown, the technological advancements also playing a prominent role in providing competitive advantages to differentiate their organization from its rivals. This situation is also applicable to banking sector, as it is driving through highly competitive environment. Every bank is providing almost same services to their customers. Each and every bank tries different ways of practices to retain their customers with themselves; so, they are seeking ways to satisfy their customers through quality services.

E-banking can be adopted in such situation to providing immense service leading to high satisfaction to its customers. E-Banking refers to a banking arrangement, where customers can perform various transaction using the internet. E-banking enables the access of both parties through simple steps (Karjaluoto, 2002); e-banking can extend its support to banks in satisfying and delighting the bank customers through value creation. The introduction of technological aspects in to the banking industry offering many experiences to customers even without paying a visit to the banks.

1.2 Research problem

In responding to the growing competition, firms are concerning on adaptation of technological advancements. E-banking adoption has become a trending feature in banking practices. Nowadays almost all the banks are implying the online banking facility and encouraging their customers to get involved in. E-banking is coming up with numerous benefits in to the field, especially it allows people to operate from the place where they are.

The study of Haalisha Aboobucker and Ameer Fathima Musfira (2017) conducted in Sri Lanka says that, although most of the banks are practicing the online banking, but mostly people are accessing it only once in a month. Even though the e-banking is attractive and capturing the attention and providing outstanding services to the customers, adoption rate is below the expectation (Shankar et al., 2020). Thus, it is important to the banking industry to identify the factors that affect in the customer adoption of E-banking. Therefore, this study tries to explore,

“the factors that affect in predicting the customer adaptation of E-banking in Banks.”

1.3 Research question

- What is the level of Perceived Usefulness, Perceived Ease of Use, Trust, Government Support and Adoption of e-banking in banks individually?
- What is the relationship and impact of Perceived Usefulness, Perceived Ease of Use, Trust and Government Support with Adoption of E-Banking?

1.4 Objective of the study

- Individually identify the level of Perceived Usefulness, Perceived Ease of Use, Trust, Government and Adoption of e-banking in banking sector.
- To identify the relationship and impact of Perceived Usefulness, Perceived Ease of Use, Trust and Government Support with Adoption of E-Banking.

2.0 LITERATURE REVIEW

2.1 Adoption of e-banking

E-banking is an electronic payment system, it enables online transactions via internet. Pikkarainen et al (2004) defined e-banking as "internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments". Generally, it provides access to banking services, checking bank balance, performing bill payments, allowing fund transfers, keep checking on mortgages, loans, savings accounts etc.

Internet usage practices are increasing among the people. In recent, interest in e-banking adaptation has grown (Payam et. al, 2014). In developed countries online banking practices are seem to be common one, but in case of many developing countries it is still in its early stages. (Zahra Falah Asl and Mohammad Ali Abdolvand, 2015). Usage of online banking is less among the internet users (Zarook, 2010). Haalisha Aboobucker and Ameer Fathima Musfira (2017) study conducted in Sri Lanka concluded that people are using online banking as an alternative for analyzing bank records. As well most of the people are accessing online banking services once a month. E-banking is attractive and providing several services to the customers. Still its adoption rate ranges below the expectation (Shankar et al., 2020). Attractiveness and positive outcomes of e-banking cannot be left behind. Thus, Banks are trying different approaches to familiarize their customers to online banking practices.

2.2 Consumer Usage

Previous studies identified several variables that affects the adoption of e banking. Perceived Usefulness, perceived ease of use, perceived risks, compatibility of the service, trust, security, website characteristics, government support, enjoyment and user-friendly website are some of them (Tan and Teo, 2000; Chen and Barnes, 2007; Giovanis, et al.,2012; Al-Fahim, 2012, Jalil et al. 2014; Maduku, 2014; Bashir and Madhavaiah, 2015). From those, this study uses four dimensions to measure the usage of e banking; Perceived Usefulness, Perceived Ease of Use, Trust and Government Support.

TAM - Technology Acceptance Model is one of the most common models practiced by researches in adaptation of technology (Davis, 1989). It suggests “Perceived usefulness and Perceived ease of use” in predicting attitude towards new technology. Many research studies highlight the perceived characteristics “Perceived usefulness and Perceived ease of use” to determine usage of e-banking (Lee, 2008; Maduku, 2014). Many researches have used other factors along with TAM (Pikkarainen et al., 2004; Al-Fahim, 2012; Zahra Falah Asl and Mohammad Ali Abdolvand, 2015).

2.2.1 Perceived Usefulness

Davis defined Perceived usefulness as “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis, 1989). TAM have used by many previous studies. As Perceived Usefulness is one of the main perceived characteristics, it was connected with Adoption of e-banking in several past studies (Tan and Teo, 2000; Pikkarainen et al., 2004; Chen and Barnes, 2007; Giovanis, et al.,2012; Al-Fahim, 2012, Maduku, 2014; Bashir and Madhavaiah, 2015). This study using five indicators namely, **Easier to Conduct, More Efficiently, Productivity, Communication** and **Believe to** measure the Perceived usefulness.

2.2.2 Perceived Ease of Use.

Another highlighted perceived characteristic under TAM is Perceived Ease of Use. Perceived ease of use is “the degree to which the prospective adopter expects the new technology adopted to be a free effort regarding its transfer and utilization” (Davis, 1989). This factor has been used in several studies (Tan and Teo, 2000; Pikkarainen et al., 2004; Chen and Barnes, 2007; Giovanis, et al.,2012; Al-Fahim, 2012, Maduku, 2014; Bashir and Madhavaiah, 2015). This

study using **Easy to use, Learning, Clear and understandable, How to perform** and **Easy to get** as indicators to measure the Perceived ease to use.

2.2.3 Trust

Zahra Falah Asl and Mohammad Ali Abdolvand (2015) defined trust in their study as the extent to which an individual believes that using online banking is secured and has no privacy threats. Along with TAM, factor Trust has connected with Adoption of e-banking in many previous researches (Pikkarainen et al., 2004; Al-Fahim, 2012; Zahra Falah Asl and Mohammad Ali Abdolvand, 2015; Bashir and Madhavaiah, 2015). Jalil et al. (2014) have connected Trust with adoption. This study concerns **Secure and Private, Securely** and **Confidential** as as indicators to measure the trust.

2.2.4 Government Support

Governement support have been employed by several researches in the past as factor of adoption of e banking (Tan and Teo, 2000; Tornatzky and Klein, 1982; Jaruwachirathanakuland Fink, 2005). Bultum (2014) studied government support under the environmental factors with adoption of e banking. Government Support uses **Encourage and Promotes, Infrastructure and Facilities, Driving the development** and **Regulation and Laws** as indicators in this study.

2.3 Relationship of Perceived Usefulness, Perceived Ease of Use, Trust and Government Support with Adoption of E-Banking

TAM is widely used method in adoption of technology. Thus, concentration about the “Perceived Usefulness and Perceived Ease of use” is high among the researchers. Many past studies analyzed the Perceived Usefulness and evidence the strong influence of perceived usefulness on adopting technology (Pikkarainen et al., 2004; Lee, 2008; Zahra Falah Asl and Mohammad Ali Abdolvand, 2015; Alhassany and Faisal, 2018). Perceived ease of use has influence in chance to use internet banking (Zahra Falah Asl and Mohammad Ali Abdolvand, 2015). Study of Maduku (2014) found positive linear relationship between e-banking adoption and the variables perceived usefulness, perceived ease to use and trust. Further who founds trust in the e-banking system is the most significant determinant of adoption for Internet banking services (Maduku 2014). Zahra Falah Asl and Mohammad Ali Abdolvand, 2015, concludes that, Trust has positive effect on internet banking acceptance. On the other hand,

government's support significantly influences the users' intention to adopt online banking (Tan & Teo, 2000). Bultum (2014) concludes, "government should establish a clear set of legal frame work on the use of technology in banking industry".

2.4 Conceptual Model

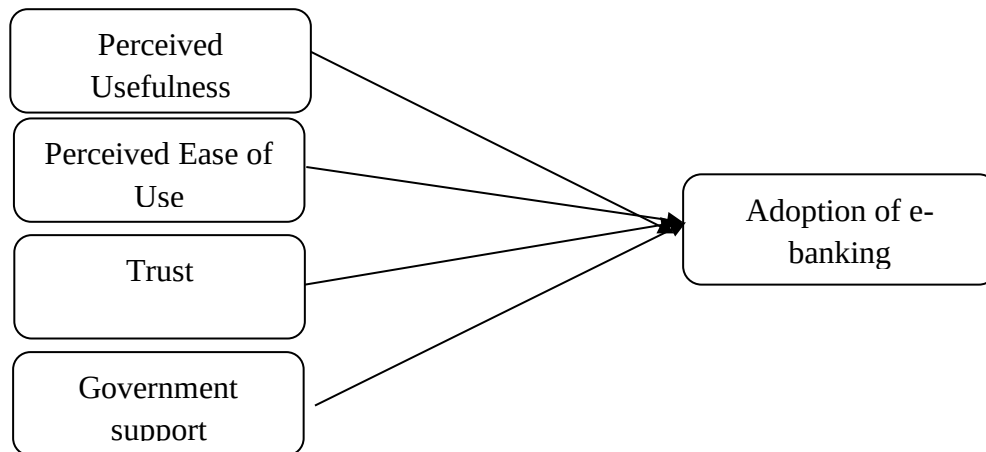


Figure: 3.1. Conceptual framework

(Source: Developed for the Study)

3.0 METHODOLOGY

This study has been carried out in the selected bank's consumers in Manmunai North Divisional Secretariat, Batticaloa. Cross-Sectional Design was used for data collection. This study uses both Primary and Secondary data to obtain the information. Primary data collected through closed questionnaires from customers from selected banks in the Manmunai North Divisional Secretariat, Batticaloa. 200 bank's consumers were selected as sample to conduct this research by using convenience sampling method. Collected data from the questionnaires were analyzed and evaluated by using Univariate, Bivariate and Multivariate techniques. The Statistical Package for Social Sciences (SPSS 19.0 Version) helps to simplify the analysis work. Level of the variables were analyzed through analysis of mean and standard deviation. Correlation Analysis was used to magnitude the relationship between two variables. Regression analysis was employed to obtain the impact. The study was explored the relationship between consumer usage of e-banking (perceived usefulness, perceived ease of use, trust, government support) and adoption of e-banking.

4.0 DATA ANALYSIS AND RESULTS

4.1 Sample profile

Results of respondents' demographic variables are shown in Table 1. Descriptive statistical analysis was used to find results.

Table 1: Summary of Demographic information

Demographic Profile		Frequencies	Percentages (%)
Gender	Male	93	46.5
	Female	107	53.5
Age	Below and 20 years	16	8.0
	21-30 years	65	32.5
	31-40 years	61	30.5
	41-50 years	41	20.5
	Above 50 years	17	8.5
Occupation distribution	Government	35	17.5
	Semi Government	24	12.0
	Private / NGO	73	36.5
	Self-Employment	53	26.5
	Un Occupation	15	7.5
Bank Type	State bank	110	55.0
	Private bank	90	45.0

(Source: Developed for this study)

According to the demographic results of Table 1, majority of the respondents were female, most of the respondents are belong to 21 to 50 years of age group. 73 of them are working in private or NGOs. More than 50% of respondents are from state bank.

4.2 Reliability analysis

Reliability test has been conducted through SPSS for measuring the internal consistency of the instrument, based on the average inter-item correlation. The Cronbach's alpha value above 0.70 is considered as good reliable instrument and high level of internal consistency of data and scale

Table 2: Reliability analysis

Variables	Cronbach's Alpha value
Perceived usefulness	0.782
Perceived ease of use	0.768
Trust	0.773
Government support	0.771
Adoption of e-banking	0.762

(Source: Survey Data)

Therefore, all items considered in this study are to be reliable, which suggest that the internal reliability of the instrument was satisfactory.

4.3 Results

4.3.1 Level of the variables

Table 3: Decision criteria

Range	Decision attributes.
$1 \leq X_i \leq 2.5$	Low level
$2.5 < X_i \leq 3.5$	Moderate level
$3.5 < X_i \leq 5.0$	High level

X_i = Mean of the data

Table 4: Level of the variables

Variables	Mean	S.D	Decision attributes.
Perceived Usefulness	3.78	0.818	High level
Perceived Ease of use	3.80	0.869	High level
Trust	3.54	0.954	High level
Government support	3.57	0.986	High level
Adoption	3.99	0.888	High level

(Source: Developed for this study)

As per the developed decision criteria, Level of Adoption of e-banking displaying high level with mean value of 3.99. It provides more advantages for bankers to promoting their product through the e-banking. The dependent variables perceived usefulness, perceived ease of use,

trust and government support are also at high level with 3.78, 3.80, 3.54 and 3.57 respectively. Among the dimensions, trust and government support has a below level than other dimensions. Improving these two factors would be help bankers to high level of consumer adoption of e-banking.

4.3.2 Relationship of Perceived Usefulness, Perceived Ease of Use, Trust and Government Support with Adoption of E-Banking

Table 6: Correlation Matrix

Variables	1	2	3	4
1 Perceived usefulness				
2 Perceived ease of use	0.494**			
3 Trust	0.417**	0.569**		
4 Government support	0.344**	0.507**	0.665**	
5 Adoption	0.515**	0.615**	0.665**	0.600**
* Correlation is significant at the 0.05 level (two-tailed); * *				

(Source: Survey Data)

Based on the correlation matrix, relationship of adoption with variables perceived usefulness, perceived ease of use, trust and government support are 0.515, 0.615, 0.665 and 0.600 respectively. This study confirmed that there is strong positive relationship between each four dimensions of usage of e-banking and adoption of e-banking.

4.3.3 Impact of the Factors Those Affect the Adoption of E-Banking

Impact of perceived usefulness, perceived ease of use, trust and government support on adoption of e-banking is calculated by using multiple regression analysis.

Table 7: Model Summary of Impact of Independent Variables on Adoption of E-Banking

Model	R	R square	Adjusted square	R	Std. Error of the Estimate
1	.756 ^a	.571	.562		.44872

- a. Predictors: (Constant), perceived usefulness, perceived ease of use, trust and government support

(Source: Survey Data)

The model summary of multiple linear regression shows, R (0.756) is correlation coefficient between perceived usefulness, perceived ease of use, trust and government support and dependent variable - adoption of e-banking. It indicates that there is a strong positive correlation between each four indicators of usage of e-banking and adoption of e-banking. R square is 0.571. Therefore, the researcher concludes that 57.1% of variability in adoption of e-banking is accounted by combine of perceived usefulness, perceived ease of use, trust and government support. In other words, 42.9% of variance of adoption of e-banking is affected by other variables.

Table 8: Coefficients of Influence Factors and Adoption of E-Banking

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.699	.220		3.184	.002
Perceived usefulness	.270	.074	.201	3.654	.000
Perceived ease of use	.261	.067	.241	3.899	.000
Trust	.249	.058	.290	4.265	.000
Government Support	.192	.057	.216	3.359	.001

a. Dependent Variable: adoption of e-banking

(Source: Survey Data)

Coefficient result shows a significant positive influence of perceived usefulness, perceived ease of use, trust and government support over the adoption of e-banking in Manmunai North, Batticaloa. As β coefficients are respectively 0.270, 0.261, 249 and 0.192, a unit increases in perceived usefulness, perceived ease of use, trust and government support increases adoption of e-banking by 0.270, 0.261, 249 and 0.192 respectively. Therefore, the regression equation model is as follows:

Adoption of e-banking = 0.699 + 0.270 (perceived usefulness) + 0.261 (perceived ease of use) + 0.249 (trust) + 0.192 (government support)

Consequently, the study concluded as perceived usefulness, perceived ease of use, trust and government support have positive effect on adoption of e-banking in Batticaloa.

5.0 CONCLUSION AND RECOMMENDATION

Regarding the findings, Adoption of e-banking found to be high level among the consumers of manmunai north, Batticaloa. Further they have positive perception toward e-banking. This study used four dimensions to measure the usage of e-banking. Those are Perceived usefulness, perceived ease of use, trust and government support; The entire dimension found to be at high level.

Study results found that Perceived usefulness, perceived ease of use, trust and government support factors has a significant relationship and impact on adoption of e-banking. But different dimension has the different effect to adoption of e-banking. Based on the finding bankers have to pay more attention on Perceived usefulness, Perceived ease of use and Trust than Government Support.

Therefore, 57.1% of variability in adoption of e-banking is accounted by combine of perceived usefulness, perceived ease of use, trust and government support. In other words, 42.9% of variance of adoption of e-banking is affected by other variables.

In order to encourage more consumer to adopt online banking services and products, banks can use Perceived usefulness, Perceived ease of use, Trust and Government Support. Further management should focus on the promotion and advancement of the priceless paybacks. More they should concentrate on their corporate websites to make it more user-friendly. Trust and security must be given a high priority and must be linked with conventional means of banking. As awareness of internet banking services is vital in early phases, effective presentations using all forms of media advertising will be useful to introduce the services to a wider audience and educate potential consumers about benefits of internet banking. It is essential to provide a well-designed and user-friendly website to attract potential adopters' attention.

This study considers only the bank consumer in Manmunai North Divisional Secretariat, Batticaloa; thus, the focus can be extended to other geographical areas. Further it only focuses on some main variables relating to adoption of e-banking. Therefore, future researches may investigate more on variables relating to adoption of e-banking in bankers for deeply understanding.

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