

Undergraduates' Adoption of Online Banking in Sri Lanka

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Abstract: Online banking is an Internet portal through which customers can use different kinds of banking services and has major effects on banking relationships. The main objective of this study is to describe undergraduates' adoption of online banking in Sri Lanka by identifying factors that explain their intention to use online banking services in Sri Lanka. This study covered five universities in Sri Lanka with 245 respondents to printed questionnaires and online mail survey. Sample was selected conveniently. Correlation and regression analysis were carried out to understand the insights. Results indicate that the factors significantly influencing the Behavioral Intention to adopt online banking include Performance Expectancy, Effort Expectancy, Social Influence and Bandwidth

Keywords: Online Banking, Adoption, Behavioral Intention, Undergraduates, Sri Lanka.

1 Introduction

The Internet technology is playing a major role for the business world especially in banking activities. There is a development in applications of e-commerce in businesses in the past years [1]. Online banking or e-banking is one of e-commerce tool that are being adopted by the banking industry. Online banking has provided an improvement in services among the banking industry [2]. Online banking is the modern delivery channel for banking services. The definition of online banking varies among researches partially, because online banking refers to several types of service through which bank customers can request information and carry out most retail banking services via computer, telephone or mobile phone. Online banking has changed the way of services provided by the banking sectors to their customers. By offering online banking services, banks seek to lower operating costs, improve customer banking services, retain customer and increase customer awareness and satisfaction, reduce banks' branch networks, and decrease the number of their service staff, location and time convenience, and the ease and speed of completing transactions.

Today, the entire banking sector in Sri Lanka offers the automated banking systems with ATMs for customers, for faster, and after-hour services. The working hours of the Sri Lankan banking sector have now changed from 8 hour, 5 days a week system to a 24/7 service. Online banking facilities have become more popular added features of the banking industry with the growing popularity of modern telecommunication technology among Sri Lankans. Today the term "Any Time Any Where Banking" is more popular than "Branch Banking" as customers do not need to go to bank premises. Number of services have

covered under the online banking and is becoming more popular among customers due to the fast growth of internet usage.

The objectives of the study are to find out the level of online banking adoption among Undergraduates in Sri Lanka and also to find out the influential relationship between the factors and undergraduates' adoption of online banking.

2 Review of Literature

The concept of e-banking systems began after installing the first Automated Teller Machines (ATMs) in the 1970s. Electronic banking is also called as “Virtual Banking” or “Online Banking” which is a result of the developing expectations of banks customers. It involves information technology based banking. Under this information technology system does involve direct interface with the customers so they do not have to visit bank's premises. Normal banking services covered under online banking is Automated Teller Machines, Credit Cards, Debit Cards, Smart Cards, Electronic Funds Transfer System, Cheques Transaction Payment System, Mobile Banking, Internet Banking and Telephone Banking.

In Sri Lanka, the adoption rate of internet banking was inadequate according to the bank sources. Thus, banks need to boost their understanding of why some people adopt an innovation and others did not and the factors that may influence the adoption decision which is of considerable practical value.

A research on Factors Effecting on Internet Banking Adoption in Sri Lanka was conducted by Sivapragasam and Peiris [3]. The characteristics related to demographic gender, age, educational level, and monthly income were significantly influenced on IB. According to the study of Factors affecting to customer adoption of Internet banking in Sri Lanka by [4] and results revealed that attitudinal and perceived behavioral control factors were significantly influenced on adoption of internet banking rather than social influence (subjective norms). The research on Customer Adoption and Use of E-banking conducted by [5] and result were as perceived usefulness, perceived ease of use, awareness had a positive and significant impact and perceived risk had negative impact on customers' attitude toward E-banking Services.

3 Theoretical Framework

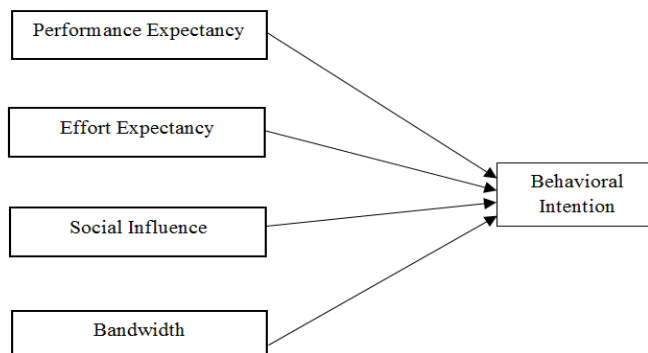


Fig. 1. Research Model

The model proposed for this study is shown fig.1, factors were extracted from the related theory for adoption of the new technology as UTAUT model [6]; Performance Expectancy, Effort Expectancy, Social Influence and Bandwidth, was also added, are the independent variables and Behavioural Intention to use is the dependent variable.

Based on the above model, the following hypotheses were formulated,

H1: Performance Expectancy has a significant positive impact on Behavioral Intention to adopt Online Banking Services in Sri Lanka.

H2: Effort Expectancy has a significant positive impact on Behavioral Intention to adopt Online Banking Services in Sri Lanka.

H3: Social Influence has a significant positive impact on Behavioral Intention to adopt Online Banking Services in Sri Lanka.

H4: Bandwidth has a significant positive impact on Behavioral Intention to adopt Online Banking Services in Sri Lanka.

4 Methodology

As theories exist and conclusions are drawn from theories this research will use deductive and quantitative research method. Data were collected through primary source through a questionnaire that was administered to the undergraduates of the universities of Sri Lanka.

The population of this study included the all undergraduates in universities in Sri Lanka numbering to 23,125 [7]. Sample of this study was 393 respondents. Respondents were selected conveniently. This study covered five universities in Sri Lanka namely Jayewardenepura, Ruhuna, Rajarata, South Eastern, and Jaffna. Data, they were analyzed using SPSS computer package.

5 Data Analysis and Results

5.1 Respond Rate and Profile of Respondents

The survey questionnaire was distributed in two modes; printed hardcopies and online form. Printed copies were distributed to 83 undergraduates in South Eastern University. Online form was emailed more than 350 undergraduates in University of Sri Jayawardhanapura, Ratarata, Ruhuna and Jaffna personally to their email addresses. A total of 247 responses, were received out of which 78 were printed and 171 were online responses. A typical response rates for internet surveys range from 1%-30%. Therefore for the emailed questionnaire which numbered a little above 350 recipients, 48.86% (171) is a good respond rate. Out of 247 questionnaires, 02 were discarded because of incompleteness of the response. Questionnaires with less than 30% responses can be discarded [8], hence making 245 responses usable. Frequencies were used to determine how often a respondent made a certain response to particular question. This section introduces the profile of the respondents.

5.2 Correlation

Table 1. Correlation Matrix

		FE	EE	SI	BAN
FE	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	245			
EE	Pearson Correlation	.989**	1		
	Sig. (2-tailed)	.000			
	N	245	245		
SI	Pearson Correlation	.978**	.987**	1	
	Sig. (2-tailed)	.000	.000		
	N	245	245	245	
SEC	Pearson Correlation	.981**	.990**	.989**	
	Sig. (2-tailed)	.000	.000	.000	
	N	245	245	245	
BAN	Pearson Correlation	.982**	.988**	.990**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	245	245	245	245
FC	Pearson Correlation	.129*	.113	.134*	.135*
	Sig. (2-tailed)	.043	.079	.036	.034
	N	245	245	245	245
BI	Pearson Correlation	.797**	.834**	.857**	.843**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	245	245	245	245

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

*. Correlation is significant at the 0.05 level (2-tailed).

According to Table 1, Performance Expectancy, ($R=0.797$, $p<0.01$), Effort Expectancy ($R= 0.834$, $p < 0.01$), Social Influence ($R=0.857$, $p < 0.01$), and Bandwidth ($R= 0.843$, $p < 0.01$) has found to have strong positive relationship with Behavior intention to adopt online banking.

5.3 Regression

Linear regression is a productive statistical technique that can be used to examine the relations between an independent variable and a dependent variable [9].

Table 2. Regression

Variable	R	R Sqr.	Adj. R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
PE	.797	.636	.634	.60489	.636	423.853	1	243	.000
EE	.834	.695	.694	.55342	.695	553.681	1	243	.000
SI	.857	.734	.733	.51678	.734	670.637	1	243	.000
Bandwidth	.843	.711	.710	.53830	.711	599.062	1	243	.000

The results of linear regression analysis indicate that Social Influence is found to be the most significantly related factor affecting the undergraduates' online banking adoption in Sri Lanka. Bandwidth is the second important factor followed by Social Influence. Effort Expectancy and Performance Expectancy also have a distinguished effect on the undergraduates' online banking adoption in Sri Lanka.

5.4 Hypothesis Testing

Performance Expectancy. Table 2. shows the Pearson correlation value 0.797 and sig value 0.000($p < 0.01$) that means there is a strong positive relationship between Performance Expectancy and Behavioral Intention to adopt online banking services. The R^2 value 0.636 ($p < 0.01$) that means Performance Expectancy has a significant and positive impact on Behavioral Intention to adopt online banking services. As a result of the test, the hypothesis is accepted.

Effort Expectancy. Pearson correlation value 0.834 and sig value 0.000($p < 0.01$) that means there is a strong positive relationship between Effort Expectancy and Behavioral Intention to adopt online banking services. The R^2 value 0.695 ($p < 0.01$) that means Effort Expectancy has a significant and positive impact on Behavioral Intention to adopt online banking services. As a result of the test, the hypothesis is accepted.

Social Influence. Pearson correlation value 0.857 and sig value 0.000($p < 0.01$) that means there is a strong positive relationship between Social Influence and Behavioral Intention to adopt online banking services. The R^2 value 0.704 ($p < 0.01$) that means Social Influence has a significant and positive impact on Behavioral Intention to adopt online banking services. As a result of the test, the hypothesis is accepted.

Bandwidth. Pearson correlation value 0.843 and sig value 0.000($p < 0.01$) that means there is a strong positive relationship between Bandwidth and Behavioral Intention to adopt online

banking services. The R^2 value 0.711($p < 0.01$) that means Bandwidth has a significant and positive impact on Behavioral Intention to adopt online banking services. As a result of the test, the hypothesis is accepted.

6 Discussion, Conclusions and Recommendations

Based on the results obtained from the study, the *Performance Expectancy* has a significant positive impact on the behavioral intention to adopt online banking. This clearly suggests that if the undergraduates realize the benefits in their performance gained from online banking services, more of them will adopt the system. Therefore, online banking services to be accepted by the undergraduates, it would be necessary to exhibit the merits they are likely to provide for users.

This study hypothesis is accepted in the survey findings that are found in this study which suggest that the *Effort Expectancy* factor has a significant positive impact on the Behavioral Intention to adopt online banking. This also suggests that there are skills to use computers, the internet, and the online banking system. The statistically significant influence of effort expectancy suggests that undergraduates are adopting to use online banking services when they are easy to use enabling them to have more time for other activities. The bank should more care on making the web-applications easy to use and user friendly. For this the ICTA can get feedback from registered users about the experience they had with the online banking system's applications and collect ideas to come out with improved features.

Social Influence has a significant positive impact on clarifying undergraduates' Behavioral Intention to adopt online banking services. This suggests that Social Influence becomes more significant and important when individuals have limited experience of online services. Thus, bank should encourage undergraduates who have still not adopted the online banking system. Moreover, advertisements and awareness campaigns in universities and websites are more likely to convince the undergraduates to adopt online banking systems.

Various concepts such as accessibility, quality of internet connection and speed can be used to define *Bandwidth*. This study's hypothesis is accepted in the survey findings that are found in this study which suggest that the Bandwidth factor has a significant positive impact on the Behavioral Intention to adopt online banking. This suggest that banks should be increased availability of quick access for online banking facilities and decreased unwanted traffic on the online banking network. The government also support for increasing of online banking adoption by providing low cost and high speed internet connection throughout the country would lead to greater adoption of online banking otherwise the current lack of infrastructure plays an important part in limiting adoption rates by customers.

Online banking is one of the fast growing services that are provided by banks to the banking customers in Sri Lanka. In previous studies such as [10] investigated that most of people were still resistant to adopt online banking services. However, author of this study can be identified that undergraduates' adoption of online banking has been increased because most of undergraduates have aware of the IT knowledge, internet experiences, and online banking concepts than other people. To attract new undergraduates and to retain existing undergraduates towards online banking, banks should be highly paid their attention regarding following recommendations.

- Changing undergraduates' attitudes towards online banking should be put into consideration. Bank should place more emphasis on the awareness of online banking adoption while undergraduates on its existence and benefits. Banks can raise

undergraduates' awareness of online banking services through workshops that conduct in University premises, through various social networks (Facebook, etc.) and channels, such as word of mouth and advertisement and promotional activities towards undergraduates.

- Banks should implement innovative things that may help customers to do their banking activities in easy and convenient manner such as send by SMS to customer about account balance and enquires when deposit money to their account or withdraw money from their account. Undergraduates are mostly busy in academic activities so they could not go for bank premises to check their bank account balance. So it is more convenient for them that sending SMS about their account balance and enquires.
- The recommendation to management of banks is that they should concentrate on their websites. Online banking sites should be made as user-friendly and provide online help and giving customer the choice of their preferred language will ease their transactions.
- However, it also recommends that banks in Sri Lanka should not attached unnecessary charges to their customer for the online banking services. This is because users have to incur other costs. Most undergraduates are under unemployment so they could not spend money for bank charges. For attract more undergraduates, banks have to introduce some attractive discounts especially for them.

6 Direction for Future Research

Research can usually be further developed and this is not an exception for that. However, there are some areas that relate to this research which need to be investigated and explored further. This study made use of variables from the UTAUT model for the online banking adoption in Sri Lanka and focused on the determinants which were Performance Expectancy, Effort Expectancy, Social Influence, and Bandwidth and Behavioral Intention to adopt online banking. Additional empirical research is required to identify and examine other factors that can impact on undergraduates' adoption of online banking services, such as type of Internet connection used, self-efficiency, culture, and trust. This study covered only five Universities in Sri Lanka and future research could be covered more universities in Sri Lanka. Future studies could be carried out on non-Internet users to investigate their adoption intentions of online banking services.

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