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The Impact of Product User-Friendliness on Consumer Product Adaptation: A study on Digital Banking products offered by Sri Lankan Banks

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Abstract

The rapid development and vast improvements in technology have a great impact on the day-to-day life of everyone. Especially, the banking and finance sector depends on technology information which has brought major changes to the banking industry. Internet banking, in recent times, has become a major and strategic tool used to perform transactions; however, customers still perform over-the-counter transactions and visit the bank physically rather than using the Digital banking facility. For this reason, the Central Bank of Sri Lanka have launched campaigns from time to time to promote digital channels in Sri Lanka. Furthermore, previous studies have been conducted to identify the factors influencing customers to adapt to Internet banking. The purpose of this study is to identify the impact of product user-friendliness on consumer product adaptation in Digital Banking of Sri Lankan banks. The quantitative mono-research method was adapted, using a close-ended structured questionnaire to collect data from a sample of 100 internet banking uses within the Western Province. The SPSS software was used to analyse the data, using correlation and multiple linear regression techniques. Accordingly, it revealed that the user interface (0.793), perceived ease of use (0.715) and perceived usefulness (0.705) have strong positive correlations at a significance of 0.000 level, with consumer product adaptation in Digital Banking. Hence, it is recommended that Sri Lankan banks focus more on the user interface, ease of use or less complexity and usefulness in Digital Banking product development. Further, banks should frequently develop or add any new functionality to the existing digital products, without harming the above vital qualities of the products.

Keywords: Digital Banking, User interface, Perceived ease of use, Perceived usefulness

1. Introduction

1.1 Background of the study

The Internet was introduced in 1969, and since then information and technology (IT) has become an essential part of human life and its rapid development affects the economy, significantly (Nehmzow, 1997). The adoption of IT was a fundamental prerequisite for the business world to survive and compete with others, retain existing customers and attract new customers (Al-Khatib, 2013). Furthermore, the banking industry is most often dependent on IT and the growing usage of IT has helped to grow and differentiate the products and services (Shiraj, 2015).

User-friendliness is where the user can easily understand and navigate through the application efficiently. User-friendliness can be measured in many ways and it has many characteristics. Further, user-friendliness is important while designing a digital product because it increases user satisfaction and as a result, sales volume will increase and customer loyalty improves.

Consumer product adaptation is also highlighted as an important factor in past research. Models such as Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology model (UTAUT) have already been developed, in order to explain the context of consumer product adaptation. The definition of digital banking is doing traditional banking activities remotely through the internet (Al-Khatib, 2013; Lang, Nolle, & Furst, 2003). It has been branded under various names, such as online

banking, digital banking, e-banking, and internet banking, and so on. This facility allows customers to do their banking activities at any time, even beyond regular banking hours.

1.2 Industry Overview

The banking sector in Sri Lanka started using IT in the 1980s (Jayasiri & Weerathunga, 2008). As a result of using IT, digital banking was first introduced in March 1999 (Jayamaha, 2008). Currently, most banks in Sri Lanka offer internet banking facilities to their customers. According to the Central Bank of Sri Lanka (CBSL) (2022), Sri Lanka currently has 24 licensed commercial banks including two state banks and 6 licensed specialist banks. Most of them are offering this facility to their customers. According to the CBSL (2022), the below figures clearly indicate the rapid growth of Internet banking usage in Sri Lanka from 2013 to 2021. As a result, from the economic point of view, internet banking can influence growth in the financial sector as it gives the facility to access from anywhere without any barriers.

Table 1. Internet-based payment

Year	Transaction Volume (000)	Transaction Value (Rs. billion)
2013	6,442.40	516.59
2021	130,312.80	7023.15

Source: CBSL (2022) Payment Bulleting

1.3 Rationale

Information and technology are rapidly changing every day and people are exposed to new technologies which result in changes in their expectations, accordingly. Initially, the internet was used as an information delivery channel by publishing information on banks' corporate websites (Tan & Teo, 2000). As of today, digital banking covers most of the conventional banking activities such as checking balances of current accounts, savings accounts, loan accounts, credit card inquiries and payments, fund transfers, utility bill payments, applying for loans and making settlement requests and value-added services. The concept of digital banking was introduced in the late 1990s and it is not as how it was then. Many previous researches have been conducted to identify the factors influencing the adoption of internet banking and some models developed to identify the factors of user acceptance of information technology (Davis, 1989; Tan & Teo, 2000). Some studies have proved that user-friendliness is a key factor that directly impacts end-user satisfaction (Pikkaraine, Pikkaraine, Karjaluoto & Pahnila, 2006). Some research has proved that there is a relationship between user-friendliness and perceived usefulness (Nayanajith, Damunupola & Ventayen, 2019). Perceived usefulness is one of the main determinants of the TAM model which is used to measure the user acceptance of technology. Hence, this study will further investigate the relationship between user-friendliness and consumer product adaptation.

Developers are working to build simple and more convenient systems which are user-friendly (Petrie & Bevan, 2009). Kuisma, Laukkanen, and Hiltunen (2007) stated that there are still some users who do not enjoy the digital banking facility due to security concerns and uncertainty, thereby still preferring to physically visit and perform banking activities. According to Jahangir and Parvez (2012), customers are very concerned about factors in adaptation to digital banking such as compatibility, convenience and communication. However, as stated by Nasreen and Lubis (2021), as people recognise the benefits of using digital banking it may become more compatible with users.

1.4 Research aim and objectives

The overall research aim is to provide detailed evidence regarding the impact of product user-friendliness on consumer product adaptation based on internet banking in Sri Lanka.

1.5 Scope

The scope of this study is users of internet banking within the Western Province.

2. Research Methodology

This study used the quantitative mono-research method using an online questionnaire.

2.1 Conceptual Framework

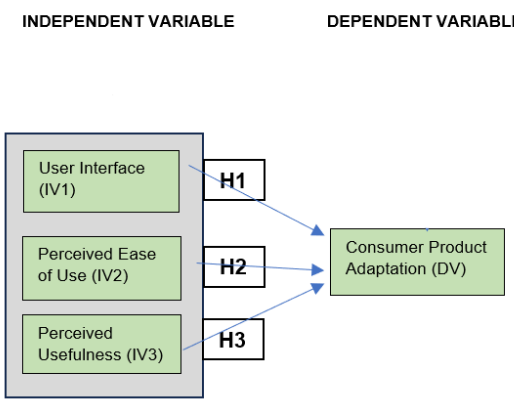

Figure 1. Conceptual Framework

2.2 Research Hypothesis

H1 – User Interface has a relationship with consumer product adaptation in digital banking.

H2 – Perceived ease of use has a relationship with consumer product adaptation in digital banking.

H3 – Perceived usefulness has a relationship with consumer product adaptation in digital banking.

2.3 Operationalisation table

The operationalisation table is given in Table 2.

Table 2. Operationalisation Table

Variable	Rationale
Consumer product adaptation	•Customer's required functions •Customer understanding •Impact of the structure and the technology used
User Interface	•Icons consistency •Colours used •Web layout/structure •Quality of the information
Perceived Ease of Use	•Complexity/flexibility •User-friendly web design •Easy accessibility •Information availability •Responsiveness
Perceived Useful	•Level of satisfaction with the available services •Effectiveness and efficiency •User expectations •User convenience •Information quality

2.4 Population and Sampling

The Western Province is the commercial hub in Sri Lanka and the population is 5,851,130 as of 2012 (Census of Population and Housing, 2012). Hence, the researcher assumed that approximately 75,000 active internet banking users are there. The sample size of the study would be 100.

2.5 Data Collection

The data was collected using Google Forms using a five-point Likert scale structured questionnaire.

2.6 Data Analysis

The data were analysed using SPSS software using correlation and multiple linear regression.

3. Findings and Discussion

3.1 Response Rate

A total of 100 responses were received out of the 100 questionnaires sent. Therefore, the response rate is 100%.

3.2 Demographic Details

Table 3 provides a summary of the demographic data of the respondents.

Table 3. Demographic Details

Age	
20 – 30 Years	48.60%
31 – 40 Years	34.60%
41 – 50 Years	11.20%
Above 50	5.60%
Gender	
Male	59.81%
Female	40.18%
Highest Education	
O/Level	2.82%
A/Level	35.51%
Degree	23.36%
MBA	17.75%
Professional Qualification	20.56%
Employment	
Unemployed	7.48%
Executive	73.83%
Manager	12.15%
Senior manager or above	6.54%

3.3 Cronbach's Alpha Test

The reliability was carried out using Cronbach's Alpha test. Hence, in the questionnaire, the results of all three independent variables and the dependent variable are shown in Table 4.

Table 4. Cronbach's Alpha Test

Variable	Cronbach's Alpha	Reliability
Consumer Product Adaptation	0.942	Very Good
User Interface	0.904	Very Good
Perceived Ease of Use	0.909	Very Good
Perceived Usefulness	0.920	Very Good

According to the above table, all the variables are above the benchmark of 0.7. Hence, it can be considered that all the variables are reliable.

3.4 Correlation Analysis

The correlation analysis of the variables is given in Table 05.

Table 5. Correlation Analysis

Independent Variable	Pearson Correlation	Significance (2-tailed)
User Interface	0.793	0.000
Perceived Ease of Use	0.715	0.000
Perceived Usefulness	0.705	0.000
Dependent Variable – Consumer Product Adaptation		

According to the above table, all the independent variables have a strong positive correlation with consumer product adaptation and the significance is 0.000. Moreover, the correlation of above 0.5 indicates all alternate hypotheses in this research are accepted.

3.5 Hypotheses Validation

H1 – User Interface has a relationship with consumer product adaptation in digital banking. – **Accepted**

This result is supported by Perera (2013), who discussed a poorly designed website could affect users and could be discouraging to use such a system.

H2 – Perceived Ease of Use has a relationship with consumer product adaptation in digital banking. - **Accepted**

This result is supported by Fernandes and Olivera (2021), who found that the perceived ease of use strongly impacts users to accept technology.

H3 – Perceived Usefulness has a relationship with consumer product adaptation in digital banking. - **Accepted**

This result is supported by Kumari and Mendis (2021), who concluded that nowadays individuals are more into technology and perceived usefulness has a very strong positive relationship with consumer product adaptation

In summary, it is evidently proved that each alternated hypothesis is accepted and has a positive relationship. Therefore, it is proved that product user friendliness and consumer product adaptation has a positive strong relationship.

3.6 Multiple Linear Regression

The R Square value is 0.641, which indicates that consumer product adaptation is explained in 64% of by-product user-friendliness dimensions. The multiple linear regression results are given in Table 6.

Table 6. Multiple Linear Regression Analysis

Independent Variable	Beta	Significance
User Interface	0.655	0.000
Perceived Ease of Use	-0.020	0.889
Perceived Usefulness	0.191	0.103

According to the regression analysis, it is evident that the most significant variables is user interface with a significance value of less than 0.05.

3.7 Descriptive Analysis

The descriptive analysis results are based on the respondent's answers to questions regarding their internet banking experience.

Table 7. Consumer Product Adaptation

I like the prompt feedback given to me by my bank's Internet banking website when I perform a transaction	
Strongly Agree	33.65%
Agree	29.91%
Neutral	20.57%
Disagree	12.15%
Strongly Disagree	3.72%
I like the way I can navigate through the menu on my bank's Internet banking website without any issues	
Strongly Agree	52.34%
Agree	25.24%
Neutral	10.29%
Disagree	10.29%
Strongly Disagree	1.84%
I can easily identify where the sub-menus are located on my bank's Internet banking website	
Strongly Agree	26.17%
Agree	35.52%
Neutral	25.24%
Disagree	10.29%
Strongly Disagree	2.78%
I can easily understand and perform any transaction using my bank's Internet banking facility, without getting help from others or without calling the hotline	
Strongly Agree	14.02%
Agree	51.41%
Neutral	22.43%
Disagree	11.22%
Strongly Disagree	0.92%
The structure and the technology used on my bank's Internet banking website attracted me	
Strongly Agree	7.48%
Agree	57.95%
Neutral	17.76%
Disagree	14.96%
Strongly Disagree	1.85%

According to Table 7, it is evident that the majority of the users feel that they are willing to adapt to digital banking products as per the findings given.

Individual Preferences

The individual preferences of the respondents in this research were gathered using the five-point Likert scale, where 1 – strongly disagree and 5 – strongly agree.

Table 8. Individual Preferences

User Interface	**Mean**
The font and size of text used on my bank's Internet banking platform are easy to read.	3.60
Icons are consistent throughout my bank's internet banking website, hence easily understood.	3.64
The colours used on my bank's Internet banking website are appropriate.	3.76
The presentation and layout on my bank's Internet banking website are pleasant.	3.63
Images and graphs on my bank's Internet banking websites are meaningful and serve a purpose.	3.36
Perceived Ease of Use	
It is easy to adopt online banking when it is less complicated.	4.05
I like to use my bank's online banking facilities because it is user-friendly.	3.50
I can easily access my bank's online banking website because it is compatible with any device.	3.74
I like to use the Internet banking facility because it meets my expectations.	3.57
I like to use my bank's Internet banking facility because I get quick responses to my inquiries.	3.45
Perceived Usefulness	

I can perform all my essential banking transactions through Internet banking without visiting the bank physically.	3.90
I like to use the Internet banking facility because it is very useful to complete my financial transactions easily.	4.07
I am satisfied with the services provided by my bank through their Internet banking facility.	3.72
I can even perform non-financial activities like requesting a balance confirmation or making a complaint through internet banking, without visiting the bank.	3.46
I like to use the Internet banking facility because I am highly satisfied with the quality of the information provided through it.	3.58

According to the above table, the rounded mean value for all the variables is 4, which is "agree" as per the Likert scale.

In terms of the user interface, the users are keen on colours used in internet banking platforms. Hence, the colours used in internet banking can be considered the most important attribute in user interface.

In terms of perceived ease of use, users are very concerned about the less complexity. Hence, it is proved that less complexity in internet banking is the most important attribute in perceived ease of use.

In terms of perceived usefulness, users are eager to perform internet banking transactions easily. Hence, performing internet banking transactions easily is the most important attribute in perceived usefulness.

4. Conclusion

The hypothesis testing revealed that the user interface has a strong relationship with consumer product adaptation. The correlation level of 0.793 indicates that the banks should focus more on the user interface to retain and attract potential customers. Moreover, the data analysis also revealed that perceived ease of use has a strong relationship with consumer product adaptation with a correlation level of 0.715 indicating that the banks should focus on implementing and developing user-friendly internet banking websites to encourage customers to use them. Finally, the data analysis revealed that perceived usefulness has a strong relationship with consumer product adaptation with a correlation level of 0.705. This indicates that the banks should focus on promoting and educating their customers.

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