# The Factors Influencing Online Banking Usage: Study among the Academic Staff of South Eastern University of Sri Lanka

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# Abstract

This study's goal is to develop and experimentally evaluate a model that pinpoints The Factors Impacting South Eastern University of Sri Lanka Staff's Use of Online Banking. Perceived Trust (PT) was chosen from the literature since it seemed to be more contextual, while Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) were based on the wellknown Technology Acceptance Model (TAM). A quantitative investigation based on a survey using questionnaires was used. The total population of the study was 250 and the sample was taken as 152 based on the Morgan table. All 152 responses were received completely. The data collected perfectly fit the model proposed, and the structural model supported that PU, PEOU, and PT, while TAM factors are known to affect behavior-related intentions to use any technology, have been empirically proven to affect behavior-related intentions to use online banking services in the Sri Lankan context. When building mobile banking apps for consumers, banks should consider features that users can easily recognize and utilize. The South Eastern University of Sri Lanka's academic personnel was the focus of the study, although it might also have included non-academic workers. Future research may also concentrate on other university researchers. The research study concluded that independent variables have a strong significant positive relationship with behavior intention to use mobile banking (R = 0.876, R-Square = 0.724). This research study gives the banking industries indepth information on the efficient usage of electronic mobile banking applications and the strategies to draw potential consumers for their multipurpose use.

*Keywords:* Behavioural Intention, Perceived Ease of Use, Perceived Trust, Perceived Usefulness, Online Banking

#### 1. Introduction

#### 1.1 Background of the Study

The modern financial system, which has brought new concepts, structures, and retail banking strategies, is presenting banks with both fresh opportunities and challenges today. Today's majority of people can bank in a novel and increasingly common way thanks to the Internet, the driving force behind the new economy [1]. (Online banking refers to the usage of a variety of banking services by customers to access information and carry out the bulk of retail banking tasks. Customers of the bank can easily perform online banking chores such as balance reporting, inter-



account transfers, and bill payments without leaving their homes or offices via a telecommunication network [2] [3] [4] [5]. Financial services are almost informational [6] and can be easily mechanized and digitized [5]. The majority of banks see online banking technology as a tool to boost customer satisfaction and confidence as well as the quality of their services [7] [8]. Internet banking technology is desperately needed in the banking industry. According to [9], using conventional banking methods is now the most expensive choice. Internet banking technology, which was once regarded as reliable and common, is the most cost-effective approach to providing banking services [7] [10]. The use of Internet banking has several disadvantages as well, such as high technical expenses, privacy issues, and legal and security concerns [10]. The use of Internet banking technology has recently been acknowledged by banks in developing countries as having boosted their productivity, efficiency, and customer trust. However, many banks in less developed countries, like Sri Lanka, have struggled to incorporate online banking technologies into their current financial systems.

#### 1.2 Overview of Sri Lanka

Commercial banks in Sri Lanka are swiftly picking up IT skills, and they are beginning to appreciate the additional advantages of IT support to foster growth. Recent studies have shown that an efficient IT infrastructure greatly increases profitability and client retention. Service providers now face both opportunities and risks as a result of the expansion of Internet banking. Innovations have evolved into a strategic imperative for the banking sector globally during the last 20 years. The banking business has undergone tremendous change and grown more competitive as a result of the use of contemporary delivery and communication techniques. Innovative banking techniques may have great possibilities, but they have also increased competition among banks for customers [10]. Sri Lanka was the first country in South Asia to have unrestricted access to commercial internet connectivity in April 1995 [14]. Despite this advantage, penetration has been patchy and iterative during the past 22 years. Online banking has grown in popularity among Sri Lankans since it was introduced in the country in March 1999 [14]. New techniques for managing daily financial transactions, notably through the online banking channel, have been developed as a result of modern advancements in electronic banking, or online banking. Online banking services have quickly spread over the world and are now seen as essential. [15] [19].

#### **1.3 Problem Statement**

The Sri Lankan banking sector has undergone a rapid shift as a result of the usage of IT-based financial solutions. In the past, all banking operations were manually



completed, and customers always needed to visit the branch. This has cost both the customer and the bank money and taken up a lot of the customer's time. Online banking is currently quickly taking over the banking business by getting rid of and replacing traditional banking processes with a web-based online system. In light of the current circumstances, this research study focuses on determining three perceived online banking systems and looks at the variables that influence the usage of online banking and the extent to which such factors have an impact on the staff of South Eastern University of Sri Lanka.

#### **1.4 Research Questions**

What are the impact and the direction of the relationship between Perceived Usefulness (PU) and behavioral intention to use online banking?

What are the impact and the direction of the relationship between Perceived Ease Of Use (PEOU) and behavioral intention to use online banking?

What are the impact and the direction of the relationship between Perceived Trust (PT) and behavior intention to use online banking?

#### 1.5 Research Objectives

To identify the impact of perceived usefulness on the behavior intention to use online banking.

To identify the impact of perceived ease of use on the behavior intention to use online banking.

To identify the impact of perceived trust and the behavior intention to use online banking.

# 2. Literature Review

# 2.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) [20] is one of the models that researchers use most frequently when looking at how people use technology. TAM proposed that attitudes toward embracing new technology may be predicted using both perceived utility and perceived ease of use, which directly influences behavioral intention to utilize the real system [20] [21]. Based on previous research, the researcher will utilize TAM as the fundamental model and expand it by incorporating other factors they believe are crucial for understanding Internet banking among Sri Lankan undergraduate students. The concept seeks to emphasize assistance from the government, trust, security, and website features. Midway through the 1990s, financial institutions began to offer electronic banking services, but many customers remained hesitant to make financial transactions online. Both clients and institutions have spent a lot of time on traditional banking tasks. Online banking is now widely used in Sri Lanka's banking industry, replacing conventional banking procedures with a web-based online system. A recent study in Sri Lanka revealed that although consumers were more averse to such technology, they had enough relative advantages to accept it.

# 2.2 Perceived Usefulness & Perceived Ease of Use

Users' attitudes toward utilizing information systems (IS) are determined by perceived usefulness (PU) and perceived usability (UU), according to the TAM (PEOU). These two components, in the opinion of the TAM, are crucial for the adoption of any new information system. PEOU refers to the user's expectation that an information system will be easy to use, according to [20]. In other words, if someone can quickly discover the IS, they are more likely to use it. According to PU, a user's performance will be enhanced by how they view an IS [20]. According to the TAM, PEOU is found to have a significant direct influence on PU and Attitude [20][34]. In other words, a system requires less effort the more a person can use it to enhance their performance. There is evidence that PEOU and PU affect users' views toward embracing IS [20].

#### 2.3 Perceived Trust

Trust is stated to be of the biggest importance when it comes to the influence it has on the acceptance of online banking, according to [35]. With a thorough understanding of the factors that can boost customers' trust in online banking, however, online trust can be overcome [36]. They persevered in urging bank management to take the issue of online trust seriously and advocated that trust should be developed by combining offline and online assessments. Customers always reveal important information when conducting financial transactions online [30]. Users are therefore unlikely to accept a system if they have worries and trepidations when using it. According to a survey by [31], potential customers' top future concerns about banks included internet security.

#### 2.4 Behavior Intention to Use Online Banking

The amount to which a person uses an information system (IS) depends on how much they intend to utilize it [32]. The behavioral desire to adopt a new technology promotes that adoption positively, according to past studies [20] [33]. We assumed that if someone has a sincere desire to adopt Internet banking, they will use this service within that framework.

#### 2.5 Empirical Background

[12] stated that the goal of the study was to determine the factors that affected Vietnam's adoption of online banking. To determine if perceived usefulness, perceived usability, trust, and government support were influencing people's adoption of Internet banking, researchers looked at these factors. The results showed a positive correlation between the intention to use online banking in Vietnam and perceptions of utility, trust, and support from the government. This study showed that perceived ease of use was not significant, in contrast to the technological acceptance model.

According to [13] analysis of the factors influencing how Palestinian customers use online banking services, technical leadership, e-trust, e-loyalty, customers' value of online personalization, customers' concern for privacy, and customers' propensity for technology adoption are all elements that influence how frequently people use online banking services. Finally, this research suggests that policymakers design a prioritized hierarchy of activities to foster the effective use of banks' online services based on the t- and p-values of the previously discussed criteria.

[16] attempted to provide the extended technology acceptance model (TAM) model as a tool for analyzing the variables that significantly affect customers' adoption of online banking. Ultimately, the results corroborate the expanded TAM model's resilience in predicting customers' desire to use Internet banking and offer general support for it. The findings made clear how important perceived usefulness, security risk, and performance risk are to the decision to use Internet banking. However, it also showed that people's adoption of online banking was largely unaffected by perceived ease of use and the quality of their internet connection.

[27] carried out a study to look at the factors that affect the adoption of Internet banking in Malaysia. The study's findings demonstrated a favorable correlation between using Internet banking and social factors, perceived utility, trust, and reported simplicity of use.

The researcher also found that self-efficacy, greater bank trust, and internet trust are positively related to the adoption of online banking, while higher perceived security risk has a negative impact. Finally, higher educated people were found to be more likely to adopt online banking.

To validate and quantify the factors impacting how frequently Poles use Internet banking, [26] examined a study. For the benefit of bank marketing staff, these studies show which demographics to target with an offer for online banking. The paper examines the banking product users who are most inclined to use online banking to

ascertain whether trust in commercial banks influences that inclination. It was shown that one of the most prevalent factors influencing the use of Internet banking is trust. Trust in commercial banks is one of the traits that influence the use of Internet banking the least when compared to the other factors being examined in this study.

[25] conducted a study on the adoption of online banking to take the effect of validated factors on the overall happiness of consumers into consideration. They discovered several dependable and significant elements influencing users' adoption of online banking in India, including trust, usage restrictions, simplicity of use, accessibility, and intention to use. Accessibility, usage limitations, and intention to use all exhibited a strong and significant correlation with overall consumer happiness. trust and ease of use's relative insignificance as determinants of overall consumer happiness. According to research by [17], young users in India adopt online banking when it is convenient for their lifestyle and if the website is userfriendly. This study examined the impact of innovation characteristics on this adoption. When compared to other banking options, online banking is not seen by young users as particularly advantageous or unsafe. [24] conducted a thorough analysis of the relevant literature before presenting two research models of the variables influencing pre- and post-adoption of online banking. Ten factors were identified by their research as influencing consumer adoption of Internet banking. The findings demonstrated that, among the 10 criteria, consumer perceptions of the usefulness, usability, and trustworthiness of online banking, as well as the perceived usability of online banking, all positively influence consumers' intention to use online banking at the early adoption stage. Furthermore, we demonstrate that the relative significance of these characteristics varies depending on whether consumers use online banking before and after adoption.

# 3. Methodology

#### 3.1 Research Design

Planning for data collection, measurement, and analysis based on study questions is the research design. Within the theoretical framework, researchers identified factors from which they developed the research strategy for this study. The descriptive study method is one that researchers use to gather information about people, things, or circumstances.

#### 3.2 Sampling Design

To answer research questions from further data gathering and exploration, surveys are helpful and efficient. Because each member of the population has an equal chance of being chosen as a subject in the sample, this study employs random sampling. A simple random sample is meant to lessen the possibility of human biases influencing case selection for the sample. If the data are limited, a straightforward random sampling will ultimately give the researcher a sample that represents the population under study.

#### 3.3 Target Population and Sampling

Academic staff from the South Eastern University of Sri Lanka (SEUSL) make up the study's population. This population might be thought of as a large group of individuals, significant occasions, or significant items that researchers desire to examine. The South Eastern University of Sri Lanka employs 250 academic people, according to figures from the Registrar's Department. The SEUSL personnel as a whole can be adequately represented by a sample size of 152 respondents. All of the chosen responders had 20 minutes to complete the questionnaire. All the questionnaire were returned completely.

#### 3.4 Data Collection and Data Analysis

There are typically two types of data collection: primary data and secondary data. Primary data are used in this study as a technique of data collecting. The primary strategy used in this study to gather data from participants was the distribution of questionnaires. The survey was in English. With the use of computer hardware, Social Science Statistics Package (SPSS) version 23 was used to evaluate the research's data. Authors shall conduct reliability tests to determine the significance of Cronbach Alpha.

#### 3.5 Questionnaire Design

An effective method of gathering data for descriptive research is the use of questionnaires. This study's questionnaire was created to investigate the Behavior Intention of mobile banking. This survey is divided into six components. In the first section, part A, respondents were questioned about their backgrounds, including gender, age, marital status, level of education, knowledge of mobile banking, time spent using mobile banking, and the types of financial transactions they regularly engage in. Respondents were questioned in parts B through F regarding dependent and independent factors using questions that were modified from the work of numerous earlier scholars. The Five Point Likert Scale, which ranges from 1 to 5, was



used to modify dependent and independent variable items from earlier research studies.

#### 3.6 Research Framework

A novel technology acceptance model combination creates the research framework. This paradigm is frequently employed to investigate technological acceptability. For instance, perceived usefulness and perceptual perceptions, which are connected to attitudes that are related to intention and eventually to behavior, influence actual behavior. TAM is based on Cognitive Action Theory (TRA), which addresses factors that influence conscious behavior. [32]

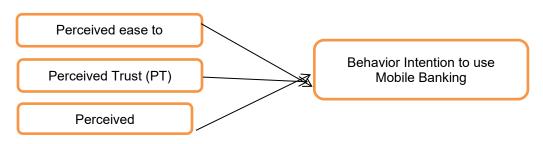


Figure 1: Research Framework of Behavior Intention to Use Mobile Banking

# 4. Findings and discussion

#### 4.1 Regression Analysis

Regression analysis was used to examine the strength of the relationship between the dependent variable—behavior intention towards using mobile banking—and the independent variables, namely perceived usefulness, perceived ease of use, and perceived trust. The depth of these connections can help determine whether the kind of connection has a more significant impact on user intention to use mobile banking. Tables 1, 2, and 3 below present the regression results.

#### Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error the Estimate
1	0.876ª	0.724	0.711	0.23163

Model	Sum of Square	Df	Mean Square	F	Sig
1 Regression	18.341	1	18.341	84.450	.000 <sup>b</sup>
Residual	20.356	151	.211		
Total	38.697	152			

#### Table 2: ANOVA Analysis

Table 3: Regression analysis for perceived usefulness, perceived ease of use, and	
perceived trust with behavior intention to use mobile banking	

Model		Unstandardized Coefficients		Standardized Coefficients		Ci-r
		В	Std. Error	Beta	- L	Sig
1	Constant	.569	.188		3.027	.003
	Mean_PU	.501	.055	.473	9.071	.000
	Mean_PEOU	.521	.063	.164	2.880	.004
	Mean_PT	.109	.042	.123	2.580	.010

Independent variables that affect views towards mobile banking are shown in Tables 1, 2, and 3. F- Statistical results (F = 84.45, p = 0.05) show the significance of the relationship between the dependent and independent variables. According to the R2 value, independent variables like perceived usefulness, perceived ease of use, and perceived trust are thought to account for 72% of the variation in behavior intention to use mobile banking. This indicates that opinions towards mobile banking take into account all factors as being significant. The findings indicate that three variables perceived utility, perceived ease of use, and perceived trust have substantial and favorable values. As a result, behavior intention toward using mobile banking is influenced by the three hypotheses of perceived usefulness (H1), perceived ease of use (H2), and perceived trust (H3).

#### 4.2 Pearson Correlation Analysis

Results from the correlation analysis are shown in Table 4. To understand the correlation between all of the study's variables, Pearson correlation coefficient analyses were made. The correlation coefficient (r) values in the table indicate the power of the variables. According to the correlation between the variables, all independent variables have a significant impact on dependent variables. The correlation coefficient ranges from 0.529 to 0.648 and is frequently positive and strong. Positive behavior intention towards using mobile banking was associated with judgments of its perceived use (r = 0.648), perceived ease of usefulness (r = 0.548), and perceived trust (r = 0.529).

		Mean_PU	Mean_PEOU	Mean_PT	Mean_Bl
Mean_PU	Pearson Correlation	1	.721	.617	.648
	Sig. (2 tailed)		.000	.000	.000
	Ν	152	152	152	152
Mean_PEOU	Pearson Correlation	.721	1	.693	.548
	Sig. (2 tailed)	.000		.000	.000
	Ν	152	152	152	152
Mean_PT	Pearson Correlation	.617	.693	1	.529
	Sig. (2 tailed)	.000	.000		.000
	Ν	152	152	152	152
Mean_BI	Pearson Correlation	.648	.548	.529	1
	Sig. (2 tailed)	.000	.000	.000	
	Ν	152	152	152	152

 Table 4: Pearson Correlation Analysis Value

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

#### 4.3 Reliability Test

#### **Table 5: Reliability Tests**

Variables	Number of	Cronbach's Alpha Value (N=152)
	ltems	
Perceived Usefulness (PU)	8	0.91
Perceived Ease of Use (PEOU)	7	0.87
Perceived Trust (PT)	7	0.79
Behavior Intention to use	8	0.85
Mobile Banking		

According to these findings, the reliability coefficients for independent and dependent variables range from 0.79 to 0.91. As a result of having an alpha value of 0.7 or higher, the measurement of the independent and dependent variables in this study is regarded as satisfactory.

4.4 Outliniary of Hypotheses reserves and						
Table (	Table 6: Hypotheses Test Results					
Нуро	Results					
H1	Perceived Usefulness has a significant relationship with the	Accepted				
	behavior intention of using mobile banking.					
H2	Perceived Ease of Use has a significant relationship with the	Accepted				
	behavior intention of using mobile banking.					
H3	Perceived Trust has a significant relationship with the behavior	Accepted				
	intention of using mobile banking.					

# 4.4 Summary of Hypotheses Test Results

### 5. Conclusion, recommendations, and limitations

Banks must give customers enough information to increase their trust in mobile banking. They can be given a user guide that contains details on mobile banking. Additionally, they must offer particular guidance or support to bank customers who wish to use mobile banking. However, several features of the mobile banking system need to be highlighted to be more effective and user-friendly, such as being simple to use or user-friendly, useful, appealing to use, and reliable. The research study concluded that independent variables have a strong significant positive relationship with behavior intention to use mobile banking (R = 0.876, R-Square = 0.724). The first objective is to identify the impact of perceived usefulness on the behavior intention to use online banking. Findings showed that perceived usefulness has a favorable connection with behavior intention to use mobile banking (r= 0.648). The majority of respondents are familiar with using mobile phones to access the internet or send SMS messages. Additionally, respondents think that utilizing mobile banking will improve the way they perform banking transactions because it is simple to use. The second objective is to identify the impact of perceived ease of use on the behavior intention to use online banking. Outcomes revealed that perceived ease of use has a positive correlation with behavior intention to use mobile banking (r= 0.548). It has been discovered that the idea of usability is a good predictor in describing the intention to utilize mobile banking. The third objective is to identify the impact of perceived trust and the behavior intention to use online banking. Results exposed that perceived trust has an optimistic relationship with behavior intention to use mobile banking (r= 0.529). Further, it discovered that when people trust the online banking system it will lead to an increase in the usage rate. The following recommendations were made to enhance the utilization and adaption of the online banking system, It will be beneficial for banks that already offer the service to roll out user-friendly marketing methods, such as commercials and brochures, outlining guidelines for setting up the platform required to successfully conduct mobile banking, Banks in developing nations as they build and implement their mobile banking strategies to entice the younger population to adopt the technology, and

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Banks should take into account elements that customers can quickly recognize and use with ease when designing mobile banking apps for them. Several factors impact online banking. This research study is limited to 3 factors and the research focused on the academic staff of South Eastern University of Sri Lanka; it can be expanded to consider non-academic staff as well. In the future research can be focused on other university academics as well.

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