

# Factors affecting customer satisfaction in online banking

## Czynniki wpływające na zadowolenie klienta w bankowości internetowej

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### Abstract

This research examines the sophisticated impact of various determinants on customer satisfaction within the domain of online banking, with a specific focus on Pan Asia Bank in Sri Lanka. In an era characterized by digital transformation, understanding the gradation of customer satisfaction has become paramount for financial institutions striving to enhance their competitive advantage. The study aims to identify critical independent variables influencing customer satisfaction, particularly emphasizing perceived usefulness, perceived ease of use, perceived relative advantage, and compatibility. A quantitative research methodology was employed, utilizing a structured questionnaire distributed among 120 online banking customers, selected through a simple random sampling technique. This method allowed for the efficient gathering of data reflective of actual user experiences and perceptions. The data were meticulously analyzed using IBM SPSS software, employing descriptive statistics and Pearson correlation analysis to establish vigorous relationships between the identified variables. The results indicate strong positive correlations between customer satisfaction and all four independent variables, with perceived usefulness demonstrating the most substantial relationship. These findings underscore the imperative for financial institutions to prioritize the enhancement of online banking services to elevate customer satisfaction levels. By focusing on these key determinants, financial institutions can build strategic, data-driven improvements to online banking platforms, paving the way for solutions that resonate with customer expectations. Furthermore, the findings contribute significantly to the existing body of literature on online banking by corroborating the relevance of these factors in the unique Sri Lankan context.

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### Keywords

customer satisfaction, online banking, perceived usefulness, user experience, competitive advantage

## 1. Introduction

The rise of digital technologies has transformed various sectors, and the banking industry is no exception. Online banking, also known as internet banking or e-banking, has become a major service offering for financial institutions, allowing customers to perform a variety of banking transactions from the comfort of their homes or workplaces. In many countries, including Sri Lanka, this shift towards online banking is rapidly growing (Abeywardhana and Arampola, 2019). However, with increased competition and similar service offerings, customer satisfaction has become a crucial factor for banks seeking to maintain a competitive advantage (Abeyrathna, 2015). The ease of use, perceived benefits, technological features, and customer expectations all contribute to the overall satisfaction level (Davis, 1989). Understanding these factors is vital for financial institutions to enhance their services, retain customers, and attract new ones (Davis et al., 1989).

There are 24 licensed commercial banks in Sri Lanka, with most offering e-banking services, as reported by the Central Bank of Sri Lanka (2021). Essential e-banking functionalities include balance inquiries, transaction history, interbank and intrabank transfers, ATM withdrawals, telebanking, and global payments via credit and debit cards (Fathima and Muthumani, 2015). While most Sri Lankan banks have integrated internet banking, the rate of adoption remains relatively low (Jayasiri et al., 2016).

In January 2021, there were 10.9 million internet users in Sri Lanka, with an increase of 800,000 users from 2020 to 2021. Despite this growth, the adoption of e-banking has remained notably low, reflecting limited engagement with digital transaction methods (Shantha, 2019). As a developing nation, embracing e-banking is vital for aligning with global financial systems. However, the shift to digital banking has been slow, with traditional banking methods still dominating (Kumari, 2016). This lag in e-banking uptake places Sri Lanka behind other developing countries in digital financial adaptation (Weligodapola et al., 2020).

The problem faced by many banks, including Pan Asia Bank, is the challenge of identifying and addressing the specific factors that influence customer satisfaction in the digital age. While online banking offers convenience and speed, customers often face issues related to service usability, transaction security, and technological reliability (Perera, 2018). These factors, if not adequately addressed, can result in customer dissatisfaction, negative reviews, and the eventual loss of customers to competitors offering richer digital solutions (Yadav, 2016).

Thus, the primary challenge is to determine which factors significantly affect customer satisfaction in online banking services and to what extent these factors influence overall customer perceptions. In doing so, the bank can identify areas for improvement and tailor its services to better meet customer expectations, thereby enhancing customer retention and attraction (Nethananthan and Shanmugathas, 2018).

## 2. Literature review

This study defines its independent and dependent variables by combining insights from several well-established theoretical models. The Technology Acceptance Model (TAM) directly informs the definitions of perceived usefulness and perceived ease of use, arguing that users are more likely to adopt and be satisfied with a system when it enhances their task performance and is simple to operate. The Diffusion of Innovation (DOI) theory explains relative advantage and compatibility, stating that individuals accept a new technology when they perceive it as better than existing alternatives and when it aligns well with their needs, habits, and lifestyle. The American Customer Satisfaction Index (ACSI) supports the understanding of customer satisfaction as the dependent variable, highlighting that satisfaction is shaped by user expectations, perceived quality, and overall system performance. Additionally, the Theory of Planned Behavior (TPB) provides further logic by linking attitudes, perceived control, and behavioral intentions to both technology acceptance and satisfaction. TPB also helps explain why some customers still prefer traditional banking, as negative attitudes toward digital tools or low confidence in using technology can reduce their intention to adopt online banking. Together, these models offer a strong theoretical foundation, showing that when a banking system is useful, easy to use, advantageous, and compatible with user needs, it positively shapes user attitudes and expectations, ultimately leading to higher customer satisfaction.

By combining multiple well-established theories, this study provides a more complete understanding of customer satisfaction in online banking than any single model could offer. Specifically, it integrates adoption-focused concepts from the Technology Acceptance Model (TAM) and the Diffusion of Innovation (DOI) with satisfaction-focused insights from the American Customer Satisfaction Index (ACSI) and behavioral explanations from the Theory of Planned Behavior (TPB). This integrated approach is relatively novel in the Sri Lankan banking context, as it links users' perceptions of technology (usefulness, ease of use, relative advantage, compatibility) with their satisfaction and behavioral intentions. Hence, this study creates a holistic framework that not only explains why customers adopt online banking but also how these experiences shape their overall satisfaction, providing both theoretical insight and practical guidance for banks.

## 3. Methodology

The conceptual framework is developed based on a comprehensive review of literature, which informs the definitions of key concepts. Here, customer satisfaction is identified as the dependent variable, with the independent variables influencing it.

The hypotheses formulated from literature address the impacts of the independent variables on customer satisfaction. Each hypothesis is set up to assess whether there is a significant effect of the independent variable on the dependent variable.

- H1: Perceived usefulness has an impact on customer satisfaction in online banking.
- H2: Perceived ease of use has an impact on customer satisfaction in online banking.

- H3: Perceived relative advantage has an impact on customer satisfaction in online banking.
- H4: Compatibility has an impact on customer satisfaction in online banking.

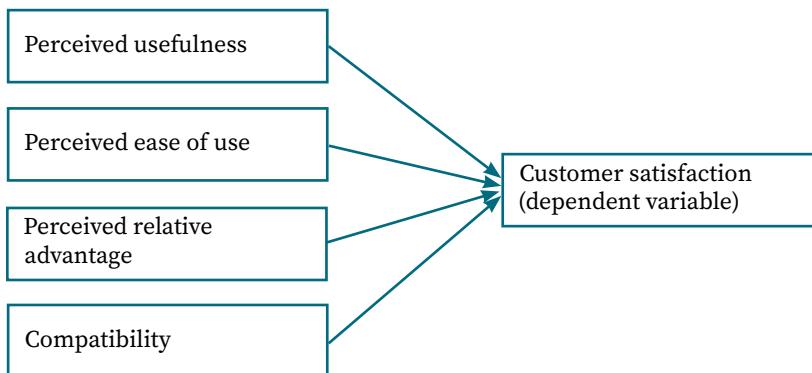


Figure 1. Conceptual framework

### 3.1. Research design

A deductive research approach is employed, where hypotheses are formulated based on established theories and concepts, followed by a structured research strategy to empirically test these hypotheses. The deductive approach necessitates the collection and analysis of quantitative data. The research strategy employed is a survey, which aligns with the deductive methodology, enabling the systematic gathering of data from a broad sample. A mono-method approach is utilized, involving a single data collection technique coupled with quantitative analysis methods. The study focuses on a specific phenomenon at a given point in time, thus adopting a cross-sectional time horizon, suitable for capturing data in a static context.

Simple random sampling technique is employed to select a sample of 120 customers who actively use the online banking services of Pan Asia Bank in the Western Province, ensuring an unbiased representation of users across different ages, genders, and educational backgrounds. IBM SPSS is used for comprehensive statistical analysis, while Microsoft Excel supports data summarization and visualization. This research is constrained by time limitations and reliance on self-reported questionnaire data. The scope is confined to select independent variables and limited to the Western Province of Sri Lanka.

## 4. Results

The questionnaire was distributed to 120 online banking users of Pan Asia Bank. Out of these, 107 respondents completed and returned the questionnaire on time, resulting in a response rate of 89.2%. The descriptive analysis of the demographic factors revealed that most respondents were female, accounting for 53.30% of the total sample. The age distribution indicated

that 46.70% of respondents belonged to the 18-25 years' age group. Additionally, a significant portion, 66.40%, of the respondents held a bachelor's degree.

**Table 1.** Demographic profile of respondents

Demographics	Items	No. of Respondents	Percentage
Gender	Male	50	46.70
	Female	57	53.30
Age	18-25	50	46.70
	26-35	42	39.30
	36-45	10	9.30
	More than 45	5	4.70
Level of education	A/Ls	27	25.20
	Bachelor's	71	66.40
	Master's or above	9	8.40

The reliability analysis showed that all items in the questionnaire had a Cronbach's alpha value exceeding 0.7, indicating high internal consistency and reliability of the measures used.

**Table 2.** Reliability statistics

Variable	Cronbach's Alpha	N of Items
Perceived usefulness	0.896	4
Perceived ease of use	0.831	4
Perceived relative advantage	0.85	4
Compatibility	0.835	4

The correlation coefficients ( $r$ ) between the independent variables and customer satisfaction ranged from 0.549 to 0.866, and all correlations were statistically significant at the 0.001 level (Sig. = 0.000). Perceived usefulness showed the strongest correlation with customer satisfaction ( $r = 0.866$ ), followed by perceived ease of use ( $r = 0.746$ ) and compatibility ( $r = 0.643$ ). Perceived relative advantage demonstrated a moderate positive correlation ( $r = 0.549$ ). The positive and statistically significant correlations indicate that customer satisfaction increases with improvements in perceived usefulness, ease of use, relative advantage, and compatibility.

**Table 3.** Correlation analysis

		Independent Variable	Customer Satisfaction
Perceived usefulness	Pearson Correlation	1	0.866**
	Sig. (2-tailed)		0
	N	107	107

		Independent Variable	Customer Satisfaction
Perceived ease of use	Pearson Correlation	1	0.746**
	Sig (2-tailed)		0
	N	107	107
Perceived relative advantage	Pearson Correlation	1	0.549**
	Sig (2-tailed)		0
	N	107	107
Compatibility	Pearson Correlation	1	0.643**
	Sig (2-tailed)		0
	N	107	107

Note: \*\* denotes significance at the 0.01 level (2-tailed).

The adjusted R-squared value of 0.771 suggests that approximately 77% of the variation in customer satisfaction can be explained by the selected predictors, demonstrating the model's strong explanatory power.

Table 4. Model summary

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate
1	0.883 <sup>a</sup>	0.78	0.771	0.31082

Note: <sup>a</sup> denotes the predictors included in the regression model: Perceived usefulness, Perceived ease of use, Perceived relative advantage, and Compatibility.

The ANOVA table shows the overall fit of the regression model for predicting customer satisfaction. The significance value (Sig.) is 0.000, which is below the threshold of 0.05, indicating the model's statistical significance. The F-value (90.348) confirms the model's strength in explaining the variance in customer satisfaction based on the predictors: compatibility, perceived ease of use, perceived relative advantage, and perceived usefulness. With a high Sum of Squares for the regression (34.913) compared to the residual (9.854), the model effectively captures the data's variability, supporting its suitability as a predictive tool.

Table 5. Analysis of variance

Anova <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.913	4	9.728	90.348	0.000 <sup>b</sup>
	Residual	9.854	102	0.097		
	Total	44.766	106			

Note: <sup>a</sup> denotes the predictors used in the regression model: Perceived usefulness, Perceived ease of use, Perceived relative advantage, and Compatibility; <sup>b</sup> denotes the dependent variable: Customer Satisfaction.

The hypothesis testing results showed that both perceived usefulness (H01) and perceived ease of use (H02) significantly impacted customer satisfaction, leading to the acceptance of their respective alternative hypotheses (H1 and H2). Specifically, a 1% increase in perceived usefulness was associated with a 65.3% increase in customer satisfaction, while a 1% increase in perceived ease of use led to a 20.8% increase in satisfaction. Conversely, the study found no statistical evidence to support the hypothesis that perceived relative advantage (H3) and compatibility (H4) significantly impacted customer satisfaction, resulting in the acceptance of the null hypotheses for these factors.

Table 6. Regression coefficients

Model		Coefficients <sup>a</sup>						
		Unstandardized Coefficients		Standardize Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	Constant	0.51	0.182		2.803	0.006	0.149	0.872
	Perceived usefulness	0.619	0.071	0.653	8.659	0	0.477	0.761
	Perceived ease of use	0.196	0.069	0.208	2.853	0.005	0.06	0.332
	Perceived relative advantage	-0.053	0.069	-0.056	-0.768	0.444	-0.19	0.084
	Compatibility	0.073	0.073	0.14	1.819	0.072	-0.012	0.277

## 5. Discussion

The findings provide actionable insights for Sri Lankan commercial banks, particularly Pan Asia Bank, in refining their online service strategies. Since perceived usefulness emerged as the strongest predictor of satisfaction, banks should prioritize functionalities that directly enhance customers' financial efficiency, such as seamless fund transfers, real-time account updates, and responsive transaction systems.

Moreover, perceived ease of use plays a critical role, emphasizing the importance of intuitive interface design, mobile compatibility, and simplified navigation. Continuous user testing and interface personalization can improve overall user experience.

From a managerial perspective, the results suggest that banks should allocate resources toward digital literacy programs, encouraging broader adoption of online banking, especially among customers who require additional support in navigating online services. Policymakers can draw on these insights to create policies that broaden digital participation and reinforce trust in digital banking.

## 6. Conclusion

The main objective of this study was to identify the key factors influencing customer satisfaction in online banking services at Pan Asia Bank in Sri Lanka. The researcher used several well-known theoretical models, including the Technology Acceptance Model (TAM), the American Customer Satisfaction Index (ACSI), the Theory of Planned Behavior (TPB), and the Diffusion of Innovation (DOI) to identify the factors that influence customer satisfaction with digital banking services.

Among the proposed hypotheses, perceived usefulness (H1) and perceived ease of use (H2) were found to have a significant positive impact on customer satisfaction. This indicates that consumers value online banking services that are convenient and efficient for financial transactions. Furthermore, they are more satisfied with platforms that are more user-friendly. In contrast, perceived relative advantage (H3) and compatibility (H4) showed weaker effects, suggesting that these innovation-related attributes are less influential in this context. This outcome indicates that although internet banking has benefits, they may not be strong enough to greatly change customer attitudes, perhaps because of competition from traditional banking services or technological limitations.

Practically, the findings highlight that banks should focus on improving the usefulness and usability of their online platforms through user-friendly interface design, consistent system performance, and smooth navigation. By refining these areas, financial institutions can not only enhance customer satisfaction but also strengthen trust, loyalty, and long-term engagement in the digital banking sector.

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## Abstrakt

W artykule przedstawiono wpływ różnych czynników na satysfakcję klientów bankowości internetowej, ze szczególnym uwzględnieniem banku Pan Asia Bank na Sri Lance. W erze charakteryzującej się transformacją cyfrową zrozumienie znaczenia zadowolenia klientów w prowadzonej działalności stało się kluczowe dla instytucji finansowych dążących do zwiększenia swojej przewagi konkurencyjnej. Celem podjętych badań była identyfikacja kluczowych zmiennych niezależnych wpływających na satysfakcję klientów, ze szczególnym naciskiem na subiektywnie postrzeganą użyteczność, łatwość użytkowania, względną przewagę oraz kompatybilność. Zastosowano ilościową metodologię badawczą, do badań wykorzystano ustrukturyzowany kwestionariusz, który został przesłany do 120 użytkowników bankowości internetowej. Próba miała charakter losowy. Zastosowana metoda umożliwiła skuteczne zebranie danych odzwierciedlających rzeczywiste doświadczenie i sposób postrzegania banku przez użytkowników. Zebrane dane zostały poddane analizie z wykorzystaniem oprogramowania IBM SPSS, przy użyciu statystyki opisowej oraz analizy korelacji Pearsona, aby określić zależności pomiędzy zidentyfikowanymi zmiennymi. Wyniki wskazują na silne dodatnie korelacje między satysfakcją klientów a wszystkimi czterema zmiennymi niezależnymi, przy czym postrzegana użyteczność wykazała najsielniejszy związek. Otrzymane wyniki wskazują, że instytucje finansowe powinny priorytetowo traktować rozwój usług bankowości internetowej, co umożliwi podniesienie poziomu zadowolenia klientów. Skupienie się na tych kluczowych determinantach pozwala na tworzenie strategicznych, opartych na danych udoskonalonych platform bankowości internetowej, a w rezultacie toruje drogę do rozwiązań odpowiadających oczekiwaniom klientów. Wyniki badań wnoszą istotny wkład do istniejącej literatury na temat bankowości internetowej, potwierdzając znaczenie badanych czynników w unikatowym kontekście Sri Lanki.

## Słowa kluczowe

satysfakcja klienta, bankowość internetowa, postrzegana użyteczność, doświadczenie użytkownika, przewaga konkurencyjna