

## THE EFFECT OF CUSTOMER-EXPERIENCE FEATURES AND DIGITAL-BANKING ADOPTION AMONG SRI LANKAN MILLENNIALS IN WESTERN PROVINCE, SRI LANKA

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### Abstract

The banking industry plays a vital role in a country's economic growth by fostering personal and organisational development. With the rise of digital technology in service delivery, digital adoption in banking has become an essential way to improve customer experience. Therefore, this study focuses on the banking industry in Sri Lanka to identify the effect of customer experience features and digital banking adoption among millennials. The study adopted positivism following a deductive research approach; a survey-based quantitative study was conducted, involving a sample of 384 participants from the millennial customer group who were selected from the western province following a stratified random sampling method to identify the relationship between the features of customer experience and adoption of digital banking applications. Multiple linear regression is employed for analysis. Based on the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2/TAM) related literature, the self-administered questionnaire was developed using the 5-point Likert scale. The findings of User Interface/User Experience (UI/UX), Social Media integration is considered to have a highly significant positive relationship, while Mobile responsiveness depicted a significant positive while security features denoted a highly negative relationship. The personalisation and demographics were denoted as non-significant predictors. Further, it is recommended to adopt policy measures to enhance digital adoption, focus on user interface and design, community engagement and social media assistance, biometric authentication, two-factor authentication, and encryption technologies to increase customer experience in digital banking adoption.

**Keywords:** Digital banking adoption, mobile responsiveness, personalisation, security, Sri Lanka, UI/UX, UTAUT2/TAM

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## **Introduction**

The banking sector today has been transformed with the integration of digital solutions as a key trend shaping the financial industry. The recent decades have witnessed the emergence of digital banking to enhance customer experience. Bank customers increasingly expect customer experience improvements, and thus, the necessity for digital adoption has today become a prerequisite. The key demographic group of customers that faced such a digital shift is the millennials, those who moved from traditional forms to digital adoption (Elayan, 2022). As discussed by Lakmal (2024), the level of customer experience in digital banking is of research importance for delivering a high-quality banking experience in the context of Sri Lanka's evolving banking landscape. The key demographic group composed of the Sri Lankan population is the millennials, and as the working class who embrace technology and are considered to have unique consumer behaviours. Despite high levels of mobile and internet connectivity, it was observed that millennials in the western province of Sri Lanka were slow to adopt digital banking applications. This mismatch indicates that existing digital banking services may not have fully met the specific needs or expectations of this tech-savvy group. Features such as advanced user interfaces, personalised banking experiences, robust security measures, and effective social media integration are believed to significantly influence millennials' banking activity. However, empirical research also indicates that these experience features are largely lacking in Sri Lanka. Therefore, this study aims to explore how various customer experience features can influence digital banking usage among millennials in the western province of Sri Lanka. The significance of the study lies in the ability of digital banking adoption to create the need for bank app teams to simplify and secure User Interface/User Experience (UI/UX); the Central Bank and banking policy measures could also leverage this to streamline e-KYC and lead national digital literacy campaigns, while universities can incorporate these into their curriculum.

## **Research Objectives**

- RO1: UI/UX → PEOU → Adoption (H1)
- RO2: Personalization → PU → Adoption (H2)
- RO3: Security → Trust → Adoption (H3)
- RO4: Mobile Responsiveness → PEOU → Adoption (H4)
- RO5: Social-Media Integration → SN → Adoption (H5)
- RO6: Demographics → Adoption (H6)

## **Literature Review**

The global banking industry undergoes a rapid transformation, driven by the increasing adoption of digital banking technologies and competition from fintech disruptors. Alalwan (2017) reported that more than 75% of global banking customers now use digital services regularly, with mobile banking apps becoming the dominant transaction platform, highlighting the industry's fundamental shift. In the United States, roughly 73% of Americans regularly use online banking services, with 76% using mobile banking apps, demonstrating the widespread acceptance of digital banking platforms (Federal Reserve, 2021). Globally, the number of mobile banking users is expected to exceed 1.75 billion by 2024. Online banking transactions have also increased dramatically, with more than 85% of users transacting online (Pangarkar, 2025). This provided the need for banks to invest in strong cybersecurity infrastructure and user-friendly interfaces to increase customer confidence and satisfaction.

As the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) and the Technology Acceptance Model (TAM) are provided, there is a behavioural intent and actual technology use (Momani, 2020; Tamilmani et al., 2021). The theories have identified key criteria such as Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Performance Expectancy (PE), Effort Expectancy (EE) and Hedonic Motivation (HM). According to Bhardwaj et al (2016), modern customers, particularly millennials and Generation Z, want 24/7 access to financial services, user-friendly digital interfaces, and individualised financial guidance. In response, banks are leveraging Artificial Intelligence (AI) and big data analytics to provide tailored goods and services, making the banking experience more relevant to individual customer demands. This shift in focus enables banks to preserve their position as critical service providers in a quickly evolving digital economy. In 2019, Sri Lanka's bank assets amounted to 76.59% of the country's Gross Domestic Product (GDP), reflecting a significant portion of the nation's financial infrastructure being tied to the banking sector (Yapabandara and Nagendrakumar, 2022). The study examined several important variables that have a significant impact on customer adoption of digital banking Applications, including User Interface (UI) design and personalisation.

The ease of navigation of a mobile application for banking is crucial, as complicated interfaces are one of the main reasons for site abandonment, so improved interfaces create a positive environment for digital banking (Raza et al., 2020). According to Kachhawa and Tiwari (2021), intuitive design helps to improve user satisfaction by simplifying navigation and interaction within digital banking platforms, emphasising the relevance of User Interface/User Experience (UI/UX) in making digital banking services more accessible and user-friendly. A study by Bouhlel and Mzoughi (2024) showed that users want immediate access to the data in their accounts, and any lag affects performance and satisfaction. Accordingly, it is argued that banking applications must load very quickly, perform transactions rapidly, and be almost consistently available since this enhances user reliance or commitment. As Goldman (2019) explained that social media can bridge the information gap by providing the latest information to potential users, hence achieving a high likelihood of adoption. Lee et al (2020) highlight the possibility that younger individuals are more likely to use technologies, including digital banking applications, because of their higher level of technology usage and receptiveness to innovation. Although previous studies have discussed the significance of the technological adoption based on the theoretical underpinning, an existing research gap was identified where the UI/UX, mobile responsiveness, personalization, security, and social media integration, though considered as drivers of good customer experience identified through the literature review, a proper operationalization of such variables that directly feed the module construct has not been provided previously. Further, there is a lack of research specifically examining demographics and their adoption of digital banking, though its significance in digital adoption in banking has been emphasised.

## Methodology

The research study analyses ‘The Effect of Customer-Experience Features and Digital-Banking Adoption among Sri Lankan Millennials in Western Province, Sri Lanka.’ The study used positivism as the philosophy, following a deductive approach. As a result, a quantitative study was undertaken following a survey strategy to conduct a cross-sectional analysis using a self-administered questionnaire. A diversified sampling strategy was employed to guarantee that the sample was representative of the diverse millennial population in Western Province. Participants were chosen at random from each subgroup that met the segmentation requirements, guaranteeing that the study's conclusions were accurate and representative of the whole target population. The quantitative study employed a survey with scales adapted from technology adoption literature (Momani, 2020; Tamilmani et al., 2021; Venkatesh et al., 2012) and measured all latent constructs using a 5-point Likert scale (1=Strongly Disagree, 5=Strongly Agree). Nonresponse bias was ruled out by comparing early and late respondent characteristics, and the sample's representativeness was confirmed before analysis.

To enhance the research ethics, the respondents were taken with informed consent on their voluntary participation. All information is kept confidential, and data collection has refrained from collecting sensory information.

## Data Analysis and Discussion

The detailed analysis of the collected research data to reveal the impact of six independent variables that have been selected for the research: UI/UX design, personalisation, security features, mobile responsiveness, social media integration, and demographic variables on digital banking adoption. The study conducts a reliability test, correlation, and chi-square test to identify the level of relationship and Multiple linear regression. This analysis is vital when it comes to identifying the forces that have informed the millennials' uptake of digital banking services and when it comes to strategising on how banks can enhance their digital service delivery in a manner that truly meets the needs of this generation.

**Table 1**  
*Descriptive statistics*

Descriptive Statistics Sample Composition (N= 384)			
Gender	Age band	Education	District
Male – 44%	29-36 -68%	Secondary School- 14%	Western Province- 100%
Female-56%	37-44 -32%	High School – 41%	
		Bachelor's Degree- 33%	
		Post-graduate Degree- 12%	

(Source: Authors, based on survey results)

The sample consists of males (44%) and females (56%) within the Millennials group, age band 68%, 29-36 age range and 32%, 37-44 age range. Based on education level 41% have completed high school, 33% Bachelor's degree holders, 14% secondary school, and 12% post-graduates. The whole sample was taken from the Western Province. The exclusion criteria are for those from any other age range.

**Reliability test**

**Table 2**  
*Reliability test*

Type	Variable	Cronbach's Alpha	No of items	Conclusion
Independent Variable	User Interface (UI/UX) Design	0.782	4	High
	Personalization	0.845	4	High
	Security Features	0.796	4	High
	Mobile Responsiveness	0.911	4	High
	Social Media Integration	0.902	4	High
	All independent variables	0.937	24	High

(Source: Authors, based on survey results)

The Cronbach’s Alpha coefficients for all the independent variables used in this study range from 0.60 and 0.911. It is seen to be sufficient to be high, thus implying that the measures used are reliable. This reliability ensures that all the variables in the study are well calibrated to measure what they were intended to measure and therefore provides a good base for statistical analysis and the interpretation of the relationships between these variables and the use of the digital banking applications by the millennials in the Western Province of Sri Lanka.

**Inferential statistics**

**Correlation and chi-square analyses**

**Table 3**  
*Correlation and chi-square test*

Independent Variable	Pearson Correlation	Remarks	Chi-Square	Alternative Hypothesis Remark	Rank
User Interface (UI/UX) Design	0.847	Strong	0.000	Accepted	2
Personalization	0.699	Strong	0.000	Accepted	4
Security Features	0.750	Strong	0.000	Accepted	3
Mobile Responsiveness	0.929	Strong	0.000	Accepted	1
Social Media Integration	0.406	Moderate	0.000	Accepted	5
Demographic	0.350	Moderate	0.000	Accepted	6

$1 < |r| < .3$  - Small / Weak correlation  $.3 < |r| < .5$  - Medium / Moderate correlation  $.5 < |r|$  - Large / Strong correlation.  
(Source: Authors, based on survey results)

The Pearson correlation coefficient of 0.847 indicates a substantial positive relationship between the quality of the UI/UX and the adoption of digital banking applications. This suggests that improvements in UI/UX are highly associated with better levels of app adoption, mirroring previous research that emphasises the importance of seamless design in digital banking (Deloitte, 2021). The chi-square value of 0.000 demonstrates a statistically significant association between UI/UX aspects and digital banking adoption, demonstrating the relevance of UI/UX in shaping user behaviour.

**Regression analysis**

**Table 4**  
*Regression analysis*

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.927	.194		4.767	.000
	UI UX	.392	.040	.432	9.850	.000
	Personalization	-.209	.170	-.229	-1.231	.219
	SecurityFeatures	-.156	.047	-.159	-3.345	.001

	MobileResponsiveness	.134	.062	.114	2.145	.033
	SocialMediaIntegration	.552	.173	.615	3.187	.002
	Demographics	.035	.039	.043	.886	.376
a. Dependent Variable: Adoption_Digitalbanking						

a. Dependent Variable: Adoption\_Digitalbanking  
(Source: Authors, based on survey results)

The Regression analysis conducted indicated that the analysis yielded a strong model fit with an  $R$  value of 0.706 and  $R^2$  of 0.499, and the overall model was significant ( $F = 652,490$ ,  $p < 0.001$ ). Both Social Media Integration ( $\beta=0.615$ ,  $p=0.002$ ) and UI\_UX ( $\beta=0.432$ ,  $p<0.001$ ) are highly significant positive drivers of adoption. Mobile Responsiveness ( $\beta=0.114$ ,  $p=0.033$ ) positively influenced adoption, while Security Features ( $\beta=-0.159$ ,  $p=0.001$ ) demonstrated a significant negative relationship. Both Personalisation and Demographics have no statistically significant effect on adoption of digital banking.

## Conclusion

In Sri Lankan contexts, where technology adoption and financial literacy are greatly variable between different this research fills the gap in local literature by providing a broad-based understanding related to digital banking. Results emphasise that digital banking solutions need to be targeted toward millennial customers' needs, ensuring ease of access, customisation, and strong security features to engender confidence. The finding is particularly important for banks interested in capturing the millennial market segment, who are expected to become the main driver of the digital banking growth in Sri Lanka and other developing economies. This study concludes that this research contributes to the academic world in terms of knowledge contribution on key customer experience features to focus on and to the banking industry by offering practical recommendations.

As key recommendations, the financial institutions will have the opportunity to refine their digital banking platforms through personalisation, mobile responsiveness, and security since these factors directly drive user satisfaction and adoption. The broader implication of such research is that, with such nuanced insights into the millennials' preferences, banks would be able to carve out a more effective digital strategy that holds immense potential for capturing and retaining tech-savvy customers in the competitive digital space focused on customer experience.

## Limitations and recommendations for future research

- Cross-sectional data collection - As a remedial attempt, it is essential to conduct a longitudinal study to capture temporal dynamics.
- Single-province sample- The generalizability of findings is limited to a specific province. It is important to go for a multi-region sample to enhance validity.
- Common-method bias - A common-method bias in self-report surveys on both variables can inflate and deflate the observed results. As a remedial attempt, it is important to follow the temporal separation of methods or use different sources of data collection.

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