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Determinants of Mobile Banking Adoption Among Undergraduates in Sri Lanka: An Application of the Technology Acceptance Model (TAM)

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ABSTRACT: This study examines the factors influencing the demand for mobile banking among undergraduates in Sri Lanka, applying the Technology Acceptance Model (TAM) and its extended constructs perceived ease of use, perceived credibility, perceived risk, and perceived trust. Despite the rapid digital transformation in the banking sector, the adoption of mobile banking among young consumers in developing economies remains inconsistent. Using quantitative research design, data was collected from 160 undergraduates across selected state universities through a structured questionnaire. Statistical analyses, including correlation and multiple regression, were performed using SPSS software to identify the determinants of mobile banking adoption. The results revealed that perceived ease of use, perceived credibility, and perceived risk significantly influenced undergraduates' intention to use mobile banking, while perceived trust was statistically insignificant. Among these factors, perceived ease of use emerged as the strongest predictor, indicating that user-friendly interfaces and system simplicity are critical in promoting mobile banking usage. The findings suggest that young consumers' adoption decisions are driven more by functionality and perceived security than by interpersonal trust. The study contributes to the existing literature by validating the extended TAM in the Sri Lankan context and highlighting the importance of usability and credibility in digital financial services. It further provides practical insights for policymakers and financial institutions to enhance mobile banking adoption and promote digital financial inclusion among youth.

1. INTRODUCTION

Technological innovation has revolutionized the global financial sector, particularly through the emergence of self-service technologies that enable consumers to access financial services without direct staff involvement. Among these, mobile banking has become a transformative force, allowing users to conduct financial transactions conveniently through mobile devices such as smartphones and tablets. This innovation has significantly enhanced accessibility, efficiency, and inclusion in financial services, especially for populations previously underserved by traditional banking institutions (Laukkanen & Pasanen, 2008).

Mobile banking can be defined as a system through which customers interact with their banks using mobile devices to perform a variety of financial operations, including balance inquiries, fund transfers, and bill payments (Tiwari & Buse, 2007; Luo, Li, & Shim, 2010). Initially introduced by European banks in 1999, the growth of the internet, smartphones, and mobile applications has driven the rapid adoption of mobile banking services worldwide (Kearney, 2012). For financial institutions, mobile banking offers a means to reduce operational costs, enhance competitiveness, and expand market reach (Pousttchi & Schurig, 2004). From the customer's perspective, it provides convenience, time efficiency, and flexibility, enabling banking "anytime and anywhere" (Sahu & Mishra, 2013).

Despite these advantages, the adoption of mobile banking remains limited in many developing countries, including Sri Lanka. Although Sri Lanka was an early adopter of internet technology in South Asia, the use of mobile banking services is still relatively low outside urban centers (Aboelmaged & Gebba, 2013). The introduction of innovations such as Sampath Bank's Sampath

Electronic Teller (SET) in 1988 and subsequent mobile-based services marked important milestones in the nation's digital banking journey. However, a considerable proportion of customers, especially in rural areas still prefer traditional, in-person banking transactions.

Even within the educated youth population, such as university undergraduates who possess both technological literacy and access to mobile devices, the adoption rate of mobile banking remains inconsistent. This paradox raises an important research question regarding the factors influencing the demand for mobile banking among undergraduates in Sri Lanka. Understanding these factors is vital, as undergraduates represent the next generation of banking customers and potential early adopters of financial technology innovations.

This study employs the Technology Acceptance Model (TAM) developed by Davis (1989) to investigate the determinants of mobile banking adoption among Sri Lankan undergraduates. The TAM postulates that individuals' intention to use new technology is primarily influenced by perceived usefulness and perceived ease of use. Subsequent extensions of the model have incorporated additional factors such as perceived credibility, perceived trust, and perceived risk (Amin, 2009; Kesharwani & Bisht, 2011; Esichaikul, Rehman, & Kamal, 2011). These variables collectively shape users' behavioral intentions toward mobile banking.

The significance of this research lies in both its academic and practical contributions. Academically, it extends the literature on mobile banking adoption by applying TAM to a developing economy context, focusing on a unique population segment—university undergraduates. Practically, the findings can assist financial institutions and policymakers in designing effective strategies to enhance mobile banking adoption. A clear understanding of the determinants influencing young consumers' behavioral intentions will enable banks to improve service design, enhance security and trust mechanisms, and promote awareness programs to increase mobile banking engagement. Ultimately, improving mobile banking adoption can contribute to financial inclusion and support Sri Lanka's broader digital transformation agenda (GSMA, 2009).

2. LITERATURE REVIEW

2. 1 Theoretical Literature Review

The adoption of mobile banking technology has been extensively analyzed through various theoretical frameworks derived from information systems and behavioral psychology. Among these, the Technology Acceptance Model (TAM) developed by Davis (1989) is the most widely applied framework for explaining users' behavioral intention to adopt technology. TAM posits that perceived usefulness (PU) and perceived ease of use (PEOU) are the two fundamental determinants of user acceptance. Perceived usefulness refers to the extent to which an individual believes that using a system enhances performance, while perceived ease of use denotes the degree to which one believes that using the system will be free of effort (Davis & Warshaw, 1989).

Subsequent refinements of TAM, including TAM2 (Venkatesh & Davis, 2000) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003), integrated additional variables such as trust, perceived risk, social influence, and facilitating conditions to address limitations of the original model and enhance its explanatory power across diverse technological and cultural contexts (King & He, 2006). In parallel, the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980) and the Theory of Planned Behavior (TPB) (Ajzen, 1991) provided foundational insights by emphasizing that behavioral intention is influenced by attitudes, subjective norms, and perceived behavioral control. TAM was developed as a contextual adaptation of these theories to explain technology adoption behavior more precisely.

Within the context of mobile banking, researchers have expanded upon these models by identifying key constructs influencing adoption. Perceived Ease of Use (PEOU) captures users' belief that mobile banking applications are effortless and straightforward to operate (Davis, 1989). Empirical studies confirm that PEOU significantly influences both perceived usefulness and behavioral intention (King & He, 2006). If mobile applications are complex or poorly designed, customers tend to experience higher cognitive effort and consequently lower adoption intentions (Riquelme & Rios, 2010). Features such as user-friendly interfaces, simple navigation, and language clarity have been shown to enhance PEOU (Singh, 2010).

Perceived Usefulness (PU) represents the degree to which individuals believe that using mobile banking improves the effectiveness and efficiency of financial transactions (Luarn & Lin, 2005; Bhatti, 2007). It directly influences behavioral intention, as users are more likely to adopt mobile banking when they perceive benefits such as convenience, time savings, and real-time access to services (Wang, 2013).

Another important determinant is Perceived Credibility (PC), which encompasses both security and privacy concerns—factors crucial for establishing customer confidence in digital transactions (Wang et al., 2006; Jeong & Yoon, 2013). Higher levels of credibility reduce perceived risk and strengthen users' willingness to adopt mobile banking (Luarn & Lin, 2005). Customers often evaluate credibility based on prior experiences, the reputation of the bank, and technological safeguards such as encryption and authentication systems (Hanafizadeh, 2014).

Perceived Risk (PR), defined as users' subjective expectation of potential loss while using mobile banking services, also plays a significant role (Aldás-Manzano et al., 2008). Such risks may be financial, social, psychological, or performance-related (Jacoby & Kaplan, 1972). Concerns regarding transaction errors, data breaches, or misuse of personal information often lead to reluctance in adoption (Cheng et al., 2011).

Finally, Trust is considered a central construct in technology adoption models. It reflects users' confidence that mobile banking platforms are reliable, secure, and capable of safeguarding sensitive information (Mayer, Davis, & Schoorman, 1995; McKnight, Choudhury, & Kacmar, 2002). Trust mitigates perceived uncertainty and encourages continuous usage. The Commitment-Trust Theory (Morgan & Hunt, 1994) further highlights that trust fosters customer commitment and long-term engagement with digital financial services (Zhou, 2009).

Collectively, these theoretical perspectives encompassing TAM, TRA, TPB, and UTAUT—emphasize that Perceived Ease of Use, Perceived Usefulness, Perceived Credibility, Perceived Risk, and Trust are central determinants of behavioral intention toward mobile banking adoption (Amin, 2009; Kesharwani & Bisht, 2011). Together, they provide a comprehensive theoretical foundation for understanding users' acceptance of mobile banking technology.

2.2. Empirical Literature Review

The adoption of mobile banking technology has been extensively analyzed through various theoretical frameworks derived from information systems and behavioral psychology. Among these, the Technology Acceptance Model (TAM) developed by Davis (1989) is the most widely applied framework for explaining users' behavioral intention to adopt technology. TAM posits that perceived usefulness (PU) and perceived ease of use (PEOU) are the two fundamental determinants of user acceptance. Perceived usefulness refers to the extent to which an individual believes that using a system enhances performance, while perceived ease of use denotes the degree to which one believes that using the system will be free of effort (Davis & Warshaw, 1989).

Subsequent refinements of TAM, including TAM2 (Venkatesh & Davis, 2000) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003), incorporated additional variables such as trust, perceived risk, social influence, and facilitating conditions to enhance its explanatory power across diverse cultural and technological contexts (King & He, 2006). The Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980) and the Theory of Planned Behavior (TPB) (Ajzen, 1991) also contribute to understanding technology adoption by suggesting that behavioral intention is influenced by attitudes, subjective norms, and perceived behavioral control. TAM builds upon these foundations to explain the acceptance of technology-specific systems such as mobile banking.

Within the context of mobile banking, these theoretical constructs—perceived ease of use, perceived usefulness, perceived credibility, perceived risk, and trust—have been empirically tested and widely validated. Perceived ease of use captures users' belief that mobile banking applications are simple and effortless to operate (Davis, 1989), and numerous studies have confirmed its influence on adoption intention. In Malaysia, Amin et al. (2007) found that both ease of use and usefulness significantly affect customer acceptance of mobile banking. Similarly, Püschel, Mazzon, and Hernandez (2010) demonstrated that PEOU enhances trust and intention to use mobile services, while Singh (2010) reported that simplicity of mobile applications directly improves perceived usefulness, thereby strengthening behavioral intention among Indian users.

Perceived usefulness represents the extent to which individuals believe that mobile banking improves efficiency and effectiveness in financial transactions (Luarn & Lin, 2005; Bhatti, 2007). When users perceive tangible benefits such as convenience, time savings, and real-time accessibility, their likelihood of adoption increases (Wang, 2013). Closely related to these perceptions is perceived credibility, which encompasses both security and privacy concerns—key elements in shaping consumer confidence (Wang et al., 2006; Jeong & Yoon, 2013). Empirical findings from Mauritius (Ramlugun & Issuree, 2014) confirm that higher perceived credibility positively influences behavioral intention to adopt mobile banking. However, Karjaluoto et al. (2002) noted that although credibility affects perception, it may not always lead to actual adoption if awareness and usability barriers persist.

Perceived risk, defined as users' expectation of potential loss associated with mobile banking usage (Aldás-Manzano et al., 2008), has consistently shown a negative relationship with adoption. Lee (2009) identified that financial, time, and security risks significantly deter usage, while studies in Pakistan (Kabir, 2013) and India (Kesharwani & Bisht, 2011) reported similar patterns, suggesting that high perceived risk reduces trust and usage frequency. Nevertheless, risk concerns can be alleviated when banks implement robust privacy and security measures (Karjaluoto et al., 2002).

Trust remains a vital yet complex determinant in technology adoption. It reflects users' confidence in the reliability and security of mobile banking platforms (Mayer, Davis, & Schoorman, 1995; McKnight, Choudhury, & Kacmar, 2002). Bhattacherjee (2002) identified a positive relationship between trust and adoption in online contexts, and Zhou (2009) demonstrated that trust indirectly influences behavioral intention through risk reduction. However, recent evidence from the Sri Lankan context (Abhisheka, 2021) reveals that trust does not exert a statistically significant influence on mobile banking adoption among undergraduates, indicating that younger users prioritize convenience, system credibility, and perceived usefulness over traditional trust factors.

Empirical studies within Sri Lanka remain limited; nevertheless, the available research (Abhisheka, 2021) highlights that perceived ease of use, perceived credibility, and perceived risk are the most significant determinants of mobile banking adoption, while trust plays a relatively minor role. These findings are consistent with global literature, emphasizing that in digitally literate populations—particularly youth segments—security assurance, usability, and technological reliability are more decisive than interpersonal trust in shaping mobile banking adoption behavior.

Collectively, both theoretical models and empirical evidence affirm that perceived ease of use, perceived usefulness, perceived credibility, perceived risk, and trust are the core constructs explaining behavioral intention toward mobile banking adoption. These

variables, rooted in TAM, TRA, TPB, and UTAUT, provide a comprehensive foundation for understanding user behavior in the context of technology-driven financial services.

3. METHODOLOGY

This study adopted a quantitative, explanatory research design to investigate the factors influencing the demand for mobile banking among undergraduates in Sri Lanka. The design was selected to test theoretical relationships derived from the Technology Acceptance Model (TAM) and its extended constructs—perceived ease of use, perceived credibility, perceived risk, and perceived trust—in determining behavioral intention toward mobile banking usage. A deductive approach was applied, whereby hypotheses were developed from established theories and tested empirically using statistical techniques (Saunders, Lewis, & Thornhill, 2016). The research philosophy underpinning the study was positivism, which emphasizes objectivity, quantifiable observations, and statistical verification of relationships between variables (Melnikovas, 2018). This philosophical stance was considered appropriate for ensuring unbiased findings and deriving generalizable conclusions regarding mobile banking adoption behavior.

The target population of the study consisted of all undergraduates enrolled in state universities in Sri Lanka. This group was selected because undergraduates represent a technologically literate and educated segment of the population, often regarded as potential early adopters of innovative financial technologies. Considering the geographical dispersion of universities and logistical challenges during the COVID-19 period, a simple random sampling technique was employed to ensure fair representation across different faculties and universities. A total of 160 responses were collected through an online questionnaire administered via Google Forms. The sample size aligned with prior mobile banking adoption studies (Luarn & Lin, 2005; Amin, 2009) and was statistically adequate for multiple regression analysis, meeting the recommended 10:1 ratio of observations to independent variables (Hair, Black, Babin, & Anderson, 2010).

Primary data were obtained through a structured questionnaire comprising two sections. The first section gathered demographic information such as gender, age, faculty, year of study, income level, and prior experience with mobile banking. The second section measured the constructs of the study using items adapted from validated instruments applied in previous TAM-based research (Davis, 1989; Wang et al., 2006; Luarn & Lin, 2005). All items were rated on a five-point Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). Before the main data collection, the questionnaire was pretested among 15 undergraduates to ensure clarity, reliability, and comprehensibility, with minor wording adjustments made based on feedback. Participation in the study was voluntary and anonymous, and informed consent was obtained prior to data collection to ensure adherence to ethical research standards.

Data analysis was conducted using SPSS (Version 26). The analysis included several stages to ensure robust interpretation of results. Initially, descriptive statistics were used to summarize demographic characteristics and compute measures of central tendency for the key variables. Correlation analysis was then performed using the Pearson correlation coefficient to identify relationships among the independent and dependent variables. Multiple regression analysis followed, testing the hypothesized relationships and determining the individual effects of each construct on mobile banking demand. To verify the validity of regression assumptions, diagnostic tests such as scatterplots, histograms, and normal probability plots were examined to assess linearity, normality, and homoscedasticity, while multicollinearity was evaluated through Variance Inflation Factors (VIF). The significance level for hypothesis testing was set at 0.05.

To ensure the quality of measurement, several validity and reliability assessments were performed. Construct validity was achieved through the adaptation of measurement scales that had been previously validated in established TAM-based studies. Content validity was confirmed through expert review by academics specializing in economics and banking. Internal consistency reliability was assessed using Cronbach’s alpha coefficients, ensuring that all constructs demonstrated acceptable reliability levels. Additionally, convergent validity was examined by analyzing the correlation patterns among variables, which were found to be consistent with theoretical expectations.

Overall, this methodological framework provided a rigorous basis for testing the hypothesized relationships and contributed to the reliability, validity, and generalizability of the study’s findings regarding mobile banking adoption among Sri Lankan undergraduates.

3.1 Operationalization of Variables

The study's constructs and their measurement items were adapted from established studies as follows:

Table 1: Operationalization of variables

Variable	Definition	Measurement Source
Perceived Ease of Use (PEU)	The extent to which a user believes that mobile banking is free from effort.	Davis (1989); Singh (2010)
Perceived Credibility (PC)	The degree of belief that mobile banking is secure and protects privacy.	Wang et al. (2006); Jeong & Yoon (2013)
Perceived Risk (PR)	The user's expectation of possible loss when using mobile banking.	Aldás-Manzano et al. (2008); Kesharwani & Bisht (2011)
Perceived Trust (PT)	The confidence that the system is reliable and transactions are safe.	McKnight et al. (2002); Zhou (2009)
Demand for Mobile Banking (DMB)	Behavioral intention to adopt or continue using mobile banking.	Luarn & Lin (2005); Amin (2009)

Source: Compiled by the Author based on the analyzed data

Each construct was measured using three to five Likert-scale items, and the internal reliability was confirmed through Cronbach's alpha coefficients, with all constructs exceeding the recommended threshold of 0.7 (Nunnally & Bernstein, 1994).

3.2 Model Specification

Based on TAM and the literature review, the following conceptual model was developed:

$$\text{DMB} = f(\text{PEU,PC,PR,PT})$$

Expressed as a linear regression equation:

$$\text{DMB}_i = \beta_0 + \beta_1 \text{PEU}_i + \beta_2 \text{PC}_i + \beta_3 \text{PR}_i + \beta_4 \text{PT}_i + \varepsilon_i$$

Where:

- **DMB** = Demand for Mobile Banking (dependent variable)
- **PEU** = Perceived Ease of Use
- **PC** = Perceived Credibility
- **PR** = Perceived Risk
- **PT** = Perceived Trust
- **ε** = error term

The model hypothesizes that PEU, PC, and PT have a positive relationship with mobile banking demand, while PR has a negative relationship.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

A total of 160 valid responses were obtained from undergraduates representing major state universities in Sri Lanka. Of the participants, 59% were female and 41% male. The majority (68%) were aged between 21 and 25 years, and 72% reported having prior experience using online banking or mobile payment applications. This demographic pattern indicates a high level of technological literacy, consistent with earlier findings on youth digital engagement (GSMA, 2009).

Table 2 summarizes the mean scores and standard deviations of the study variables. Respondents generally expressed positive perceptions toward mobile banking across all constructs.

Table 02: Mean scores and standard deviations of the variables

Variable	Mean	SD
Perceived Ease of Use (PEU)	4.15	0.61
Perceived Credibility (PC)	4.02	0.66
Perceived Risk (PR)	2.48	0.81
Perceived Trust (PT)	3.68	0.74
Demand for Mobile Banking (DMB)	4.08	0.59

Source: Compiled by the Author based on the analyzed data

The high mean scores for PEU and PC suggest that undergraduates perceive mobile banking systems as user-friendly and credible. The relatively low mean for PR indicates a moderate perception of risk, while DMB's high mean reflects a strong intention to adopt or continue using mobile banking.

4.2 Reliability Analysis

Internal consistency was evaluated using Cronbach's alpha coefficients, and all constructs exceeded the recommended threshold of 0.7 (Nunnally & Bernstein, 1994), confirming reliability.

Table 3: Cronbach's alpha coefficients

Variable	Cronbach's Alpha
PEU	0.842
PC	0.861
PR	0.778
PT	0.802
DMB	0.834

Source: Compiled by the Author based on the analyzed data

These reliability coefficients indicate that the items used to measure each construct are internally consistent and suitable for further analysis.

4.3 Correlation Analysis

Table 4 presents the Pearson correlation matrix, which demonstrates significant associations among most variables.

Table 4: Correlation Analysis

Variables	PEU	PC	PR	PT	DMB
PEU	1	0.521**	-0.248**	0.489**	0.613**
PC		1	-0.312**	0.458**	0.572**
PR			1	-0.341**	-0.296**
PT				1	0.412**
DMB					1

Note: $p < 0.01$ (two-tailed)

Source: Compiled by the Author based on the analyzed data

The correlation results reveal that PEU, PC, and PT are positively correlated with DMB, while PR shows a negative correlation, aligning with prior findings by Amin (2009) and Kesharwani and Bisht (2011). This suggests that undergraduates who perceive mobile banking as easier, credible, and trustworthy demonstrate higher adoption intention, whereas higher perceived risk deters usage.

4.4 Regression Analysis

A multiple linear regression was performed to identify the relative influence of the independent variables on the demand for mobile banking.

$$\text{DMB} = \beta_0 + \beta_1(\text{PEU}) + \beta_2(\text{PC}) + \beta_3(\text{PR}) + \beta_4(\text{PT}) + \varepsilon$$

Table 5. Regression Results

Predictor	β (Standardized)	t-value	Sig. (p)	Result
Constant	—	2.11	0.036	—
PEU	0.385	5.63	0.000	Supported
PC	0.276	4.72	0.000	Supported
PR	-0.198	-3.11	0.002	Supported
PT	0.067	1.08	0.282	Not Supported
$R^2 = 0.612$, Adjusted $R^2 = 0.598$, $F(4,155) = 56.71$, $p < 0.001$				

Source: Compiled by the Author based on the analyzed data

The regression model demonstrated a strong explanatory power, accounting for approximately 61.2% of the variance in mobile banking demand. This indicates that the selected constructs collectively provide a substantial and reliable explanation of behavioral intention toward mobile banking adoption among university students.

Among the examined factors, Perceived Ease of Use ($\beta = 0.385$, $p < 0.001$) emerged as the most influential determinant of mobile banking demand. This finding confirms that the simplicity, accessibility, and user-friendliness of mobile banking applications are central to encouraging adoption. The result aligns with Davis's (1989) original proposition in the Technology Acceptance Model, as well as with the empirical findings of Luarn and Lin (2005), who highlighted ease of use as a primary motivator of adoption in technology-based financial services. The outcome suggests that undergraduates are more inclined to adopt mobile banking platforms when the interfaces are intuitive and minimize cognitive effort.

Perceived Credibility ($\beta = 0.276$, $p < 0.001$) also exhibited a significant positive effect on mobile banking demand, emphasizing that security and privacy considerations are crucial in shaping users' confidence and willingness to engage in digital financial transactions. This finding is consistent with the work of Wang et al. (2006) and Jeong and Yoon (2013), who identified perceived credibility as a decisive factor influencing electronic banking adoption. The implication is that when users perceive mobile banking systems as secure and trustworthy, their likelihood of continued usage increases significantly.

In contrast, Perceived Risk ($\beta = -0.198$, $p = 0.002$) displayed a significant negative relationship with mobile banking adoption, indicating that concerns regarding potential fraud, financial loss, or data breaches act as barriers to adoption. This result corroborates previous studies by Lee (2009) and Kesharwani and Bisht (2011), both of whom demonstrated that higher perceived risk diminishes users' trust and usage frequency. These findings highlight the necessity for financial institutions to reduce perceived risks through transparent communication, robust security mechanisms, and awareness initiatives that educate users on safe digital practices.

Interestingly, Perceived Trust ($\beta = 0.067$, $p = 0.282$) was statistically insignificant in predicting mobile banking demand. Although trust is theoretically recognized as a critical factor in technology adoption, this result suggests that it may not play a decisive role among technologically literate and digitally confident undergraduates. Similar to the findings of Abhisheka (2021), this study reveals that younger users prioritize functional attributes such as convenience, usability, and credibility over relational trust when engaging with financial technologies. This could reflect a generational shift toward reliance on institutional and technological trust rather than interpersonal confidence.

The overall findings of this study are consistent with the theoretical expectations of the Technology Acceptance Model (TAM) and much of the empirical literature on mobile banking adoption within developing economies. The dominant influence of perceived ease of use confirms that younger, digital-native users value functional simplicity and convenience over interpersonal trust when engaging with mobile financial platforms (Amin, 2009; Püschel, Mazzon, & Hernandez, 2010). Likewise, the significant role of perceived credibility underscores the growing importance of security and privacy assurances—an observation also reported by Jeong and Yoon (2013) in South Korea and Ramlugun and Issuree (2014) in Mauritius.

The negative association between perceived risk and mobile banking adoption further supports the view that users' concerns about data breaches, transaction errors, or fraudulent activities discourage adoption (Lee, 2009; Kabir, 2013). However, these concerns can be mitigated when banks communicate strong security measures and foster user awareness regarding safe usage. Interestingly, the non-significant effect of trust diverges from studies focusing on older populations (Zhou, 2009; McKnight et al., 2002), suggesting that young, digitally literate consumers rely more on system design, transparency, and institutional credibility than on traditional interpersonal trust when evaluating mobile banking services.

Collectively, these results highlight that user experience (ease of use) and system reliability (credibility) are the most critical determinants of mobile banking demand among Sri Lankan undergraduates. Addressing perceived risk through enhanced cybersecurity, clear communication, and awareness campaigns could further strengthen adoption rates. The model's explanatory power and consistency with prior literature affirm the relevance of TAM-based constructs in understanding mobile banking behavior in developing economies. These findings hold valuable implications for both financial institutions and policymakers aiming to enhance digital financial inclusion, particularly within Sri Lanka's youth demographic, by prioritizing user-friendly interface designs, robust privacy safeguards, and continuous technological improvement.

5. CONCLUSION

This study investigated the factors influencing the demand for mobile banking among undergraduates in Sri Lanka by applying the Technology Acceptance Model (TAM) and its extended constructs—perceived ease of use, perceived credibility, perceived risk, and perceived trust. Based on data collected from 160 undergraduates, the findings revealed that perceived ease of use, perceived credibility, and perceived risk were significant determinants of mobile banking demand, while perceived trust did not exert a statistically significant effect.

The results indicate that perceived ease of use is the most influential factor shaping behavioral intention, suggesting that undergraduates' willingness to adopt mobile banking largely depends on the simplicity and user-friendliness of digital interfaces. This observation aligns with previous studies highlighting that young consumers' technology adoption is strongly driven by system usability and convenience (Davis, 1989; Luarn & Lin, 2005; Amin, 2009). Furthermore, perceived credibility emerged as a key

determinant, emphasizing the critical role of privacy, data protection, and security assurances in building confidence in mobile banking platforms (Wang et al., 2006; Jeong & Yoon, 2013). Conversely, perceived risk demonstrated a negative impact on adoption intention, consistent with findings by Lee (2009) and Kesharwani and Bisht (2011), which underscored that concerns regarding financial loss, data breaches, or transaction errors discourage users from engaging with mobile financial technologies.

Interestingly, perceived trust was not found to have a significant influence on adoption behavior in this context. This outcome suggests that Sri Lankan undergraduates, as digital natives, tend to rely more on the technical quality, reliability, and institutional reputation of mobile banking systems than on interpersonal or relational trust factors (Abhisheka, 2021). This finding diverges from studies conducted among older or less technologically familiar populations, where trust serves as a stronger predictor of adoption (Zhou, 2009; McKnight, Choudhury, & Kacmar, 2002).

Overall, the study enriches the growing body of literature on mobile banking adoption in developing economies by offering context-specific empirical evidence from Sri Lanka. It demonstrates that young, educated consumers are primarily motivated by ease of use, credibility, and perceived security, rather than by traditional trust-based mechanisms. These insights reaffirm the applicability of the extended TAM framework in explaining digital banking adoption and underscore the importance of designing mobile banking systems that are user-friendly, secure, and transparent. By addressing usability and risk perceptions effectively, financial institutions can strengthen user confidence, promote wider adoption of mobile banking services, and accelerate the digital transformation of Sri Lanka's financial sector.

REFERENCES

1. Ajzen, I. (1991). *The theory of planned behavior*. Organizational Behavior and Human Decision Processes, 50(2), 179-211.
2. Bagozzi, R., Davis, F. D., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science, 35*(8), 982-1003.
3. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340.
4. Hanafizadeh, P., Keating, B. W., & Khedmatgozar, H. (2014). A systematic review of Internet banking adoption. *Telematics and Informatics, 31*(3), 492-510.
5. Jeong, S. H., & Yoon, S. (2013). The role of trust in consumer acceptance of mobile financial services: The influence of credibility. *International Journal of Mobile Communications, 11*(1), 82-106.
6. Kesharwani, A., & Bisht, S. S. (2012). The impact of trust and perceived risk on Internet banking adoption in India: An extension of the Technology Acceptance Model. *International Journal of Bank Marketing, 30*(4), 303-322.
7. King, W. R., & He, J. (2006). A meta-analysis of the Technology Acceptance Model. *Information & Management, 43*(6), 740-755.
8. Luarn, P., & Lin, H. H. (2005). Toward an understanding of the behavioural intention to use mobile banking. *Computers in Human Behavior, 21*(6), 873-891.
9. Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review, 20*(3), 709-734.
10. McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information Systems Research, 13*(3), 334-359.
11. Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing, 58*(3), 20-38.
12. Riquelme, H. E., & Rios, R. E. (2010). The moderating effect of gender in the adoption of mobile banking. *International Journal of Bank Marketing, 28*(5), 328-341.
13. Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students* (7th ed.). Pearson.
14. Singh, S. (2010). Investigating the impact of mobile banking on the banking sector (Master's thesis).
15. Wang, Y.-S., Wang, Y.-M., Lin, H. H. & Tang, T. I. (2006). Determinants of user acceptance of Internet banking: An empirical study. *International Journal of Service Industry Management, 17*(5), 500-519.
16. Zhou, T. (2009). The effect of initial trust on consumer online behaviour. *Journal of Computer Information Systems, 49*(1), 24-30.