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Adoption of Digital Banking in Nepal: An Analysis of Customer Perceptions and Behaviors

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Abstract

Digital banking is reshaping the financial landscape worldwide, offering substantial opportunities for developing economies like Nepal. This study investigates the factors influencing digital banking adoption in Nepal, emphasizing customer perceptions, demographic characteristics, and behavioral patterns. The research aimed to assess the extent of digital banking adoption, identify the key determinants driving its usage, and explore the relationship between these factors and user behavior.

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A sample of 380 respondents, representing diverse demographic and geographical segments, participated in the study. Data were collected through structured questionnaires and analyzed using descriptive statistics, correlation, and multiple regression techniques. The findings reveal that perceived ease of use (PEOU) is the most significant predictor of adoption (\u03b2 = 0.766, $p < 0.01$), followed by convenience (\u03b2 = 0.346), perceived credibility (\u03b2 = 0.287), and perceived usefulness (\u03b2 = 0.268). Demographic insights indicate that middle-aged, educated, and professionally engaged individuals are the primary users of digital banking, with weekly interaction (44.5%) being the most common usage pattern.

The study highlights the importance of user-friendly platforms, robust security measures, and targeted educational initiatives to promote widespread adoption. Policymakers can leverage these findings to develop inclusive regulations, while financial institutions are encouraged to innovate continually to align with evolving customer expectations. By addressing key challenges, this research provides actionable strategies to enhance digital banking adoption in Nepal, contributing to the broader literature on digital transformation in developing economies.

Keywords: Customer Behavior, Technological Adoption, Digital Transformation, Banking Trends, User Perception

JEL Classification Codes: **M15**, **M21** & **G21**

Introduction

In the era of rapid technological advancement, innovation drives significant transformations across industries, with digital banking at the forefront of these changes. Digitization has redefined traditional banking operations, requiring financial institutions to adapt to changing consumer behavior and leverage technology to improve service delivery. The transition to digital banking represents a technological evolution and a cultural shift within banks (Dootson, 2016). Digital banking's role in enhancing user interfaces and optimizing marketing strategies has underscored its importance in achieving customer satisfaction and retention, particularly in the aftermath of financial challenges, such as the crisis of 2000 (Monferrer-Tirado, 2016).

In Nepal, the digital banking landscape is rapidly expanding, with over 9 million users actively engaging with mobile banking services, as per the Nepal Rastra Bank's recent statistics. This growth reflects a broader trend toward digital engagement, propelled by increased smartphone penetration and internet accessibility. The introduction of mobile banking apps has enhanced the efficiency and convenience of banking transactions, enabling banks to align their offerings with evolving customer preferences. Laxmi Bank, a pioneer in mobile banking in Nepal, launched SMS-based banking in 2004, marking the inception of digital banking in the nation. Since then, the sector has experienced a consistent upward trajectory, albeit with challenges related to technological adoption, customer awareness, and infrastructure development. Despite its potential, digital banking in Nepal faces hurdles, including limited internet accessibility, security concerns, and a lack of digital literacy. This gap necessitates a comprehensive exploration of customer perceptions and behaviors toward digital banking, as these insights are crucial for tailoring services to meet consumer expectations and encouraging

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widespread adoption. Recent literature from Nepal highlights that while urban populations have begun embracing digital platforms, rural areas remain underserved due to infrastructure limitations and lack of awareness (Gajurel, 2023).

The Nepalese banking sector predominantly relies on branch-based retail banking due to geographical constraints. However, the rapid growth of digital banking presents an opportunity to transform traditional banking practices. Despite banks' efforts to introduce digital solutions such as mobile banking, internet banking, and ATMs, a significant portion of the population remains hesitant to adopt these services. Customers often rely on traditional banking methods, driven by concerns over security, privacy, and the perceived complexity of digital tools. Moreover, Nepal's late adoption of technology—exacerbated by factors such as low internet penetration, insufficient government policies, and a lack of public awareness—further hampers the full realization of digital banking's potential. As Hasan (2005) highlights, common challenges in developing countries include poor infrastructure, high costs, and cultural resistance, all of which resonate within the Nepalese context. Addressing these barriers is critical for fostering customer trust, enhancing digital literacy, and aligning Nepal's banking sector with international standards. According to a study by Nepal Rastra Bank (2022), only 30% of the population in rural regions have access to internet banking, underscoring the need for targeted interventions to bridge this gap.

This research aims to analyze the adoption and use of digital banking in Nepal, with a specific focus on customer perceptions and behaviors. The objectives are as follows: to assess the extent of digital banking adoption in commercial banks across Nepal; to examine the relationship between key factors and the adoption of digital banking; and to identify critical variables influencing the effective adoption of digital banking services.

The findings of this research have multifaceted implications for stakeholders in Nepal's banking sector: for banks, the study provides insights into customer preferences and behaviors, enabling banks to refine their digital services, improve operational efficiency, and reduce costs associated with traditional banking models; for policymakers, recommendations derived from this study can inform the development of robust regulations and policies to promote secure, inclusive, and accessible digital banking services; for customers, enhanced understanding and awareness of digital banking benefits can empower customers to transition from traditional to digital banking, thereby saving time and resources; and for academia and future researchers, the study's findings contribute to the existing body of knowledge on digital banking adoption, offering a foundation for further research in similar contexts. Digital banking represents a transformative force within Nepal's financial landscape. By addressing key challenges and leveraging customer insights, this research aims to support the sustainable growth of digital banking, ensuring its alignment with both national and global financial standards.

Literature Review

A Critical Synthesis of Previous Studies

The study of digital banking adoption in Nepal has been shaped by a combination of global technological trends and local contextual factors. Previous research underscores the

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transformative role of digital banking in enhancing operational efficiency and improving customer experience across financial institutions. Digital banking enables banks to provide innovative services through various channels such as ATMs, mobile banking, and online banking (Giannakoudi, 1999; Burnham, 1996). These services are vital to sustaining competitive advantage in the digital age. The role of information technology in the banking sector has significantly influenced perceived service quality in public, private, and foreign banks, requiring constant innovation in products and services. Customers increasingly rely on digital tools like cash machines, internet banking, and mobile banking to perform transactions, expanding banks' reach across diverse geographies. This aligns with global trends where technology has revolutionized supply chains, marketing, production, and service delivery (Yang& Zhang, 2021).

In Nepal, the digital banking landscape is rapidly expanding, with over 9 million users actively engaging with mobile banking services, as per the Nepal Rastra Bank's recent statistics. This growth reflects a broader trend toward digital engagement, propelled by increased smartphone penetration and internet accessibility. The introduction of mobile banking apps has enhanced the efficiency and convenience of banking transactions, enabling banks to align their offerings with evolving customer preferences. Laxmi Bank, a pioneer in mobile banking in Nepal, launched SMS-based banking in 2004, marking the inception of digital banking in the nation. Since then, the sector has experienced a consistent upward trajectory, albeit with challenges related to technological adoption, customer awareness, and infrastructure development. Despite its potential, digital banking in Nepal faces hurdles, including limited internet accessibility, security concerns, and a lack of digital literacy. Recent literature from Nepal highlights that while urban populations have begun embracing digital platforms, rural areas remain underserved due to infrastructure limitations and lack of awareness (Gajurel, 2023).

Globally, the adoption of digital banking has been studied extensively. Research by Venkatesh et al. (2012) expanded the Technology Acceptance Model (TAM) to include factors like social influence and facilitating conditions, emphasizing their relevance in emerging markets. Similarly, in the South Asian context, Vyas & Kumar (2019) highlighted how trust and user-friendliness significantly influence mobile banking adoption. Furthermore, studies by PwC (2021) underline the role of AI and machine learning in transforming banking services, including fraud detection and personalized customer experiences, areas that are still nascent in Nepal. In the context of digital inclusion, the World Bank (2022) emphasized the importance of digital financial literacy, especially in regions where traditional banking infrastructure is weak. These international insights provide a comparative perspective for understanding the challenges and opportunities in Nepal.

The adoption of digital banking technologies has been extensively analyzed through frameworks like the Technology Acceptance Model (TAM). Studies highlight that perceived usefulness, ease of use, and credibility are critical determinants of user adoption. For example, Thornton (2001) emphasized the importance of technical self-efficacy and adaptability, which shape individual decisions to adopt digital banking. Similarly, Dube, Njanike, Manomano, &

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Chiriseri, (2011) identified security concerns and marketing exposure as significant barriers to adoption, particularly among technologically informed users. Research by Gerrard (2003) and Sayar (2007) illustrates global patterns in digital banking adoption, emphasizing convenience, cost-effectiveness, and accessibility as key drivers.

While foundational studies have provided valuable insights into digital banking adoption, their application to Nepal reveals several gaps. Existing research often overlooks the unique infrastructural and cultural challenges faced by Nepal, such as low internet penetration, insufficient government policies, and a lack of digital literacy. The Nepalese banking sector predominantly relies on branch-based retail banking due to geographical constraints. However, this traditional model is being challenged by the growing need for digital solutions. Customers' hesitancy to adopt digital banking stems from concerns over security, privacy, and the perceived complexity of digital tools (Hasan, 2005). Addressing these barriers is critical for fostering customer trust, enhancing digital literacy, and aligning Nepal's banking sector with international standards (Kandel, 2024).

Despite advancements in banking technology, including mobile wallets and AI-driven services, their adoption in Nepal remains limited. Studies focusing on the implementation and acceptance of these technologies in Nepal are scarce, creating a significant gap in empirical data. Moreover, while urban populations have begun embracing digital platforms, rural areas remain underserved, highlighting the need for targeted interventions to bridge this digital divide (Nepal Rastra Bank, 2022).

Recent national research by Saha (2015) identified infrastructural weaknesses, such as inconsistent internet connectivity and limited smartphone penetration in rural areas, as major barriers to digital banking adoption. On the other hand, Sharma et al. (2023) pointed out that banks' efforts to incentivize digital transactions through lower fees and cashback offers are beginning to shift customer behavior in urban regions. Internationally, Deloitte (2022) emphasized the significance of integrating cybersecurity measures to enhance user confidence, a lesson particularly relevant for Nepalese banks seeking to mitigate security concerns. This research aims to address these gaps by evaluating factors that influence digital banking adoption, such as user trust, perceived benefits, and accessibility. Aligning these findings with Nepal's specific context will provide actionable insights for practitioners and policymakers. The study will also contribute to the broader body of knowledge on digital transformation in developing economies and support the formulation of targeted strategies to enhance digital banking adoption in Nepal.

Technology Acceptance Model (TAM) Application

The Technology Acceptance Model (TAM) provides a robust theoretical framework for analyzing digital banking adoption. Developed by Davis (1989), TAM addresses the lack of reliable measurement scales for predicting user adoption of information technologies. It posits that two critical factors—Perceived Usefulness (PU) and Perceived Ease of Use (PEOU)—determine the likelihood of technology acceptance.

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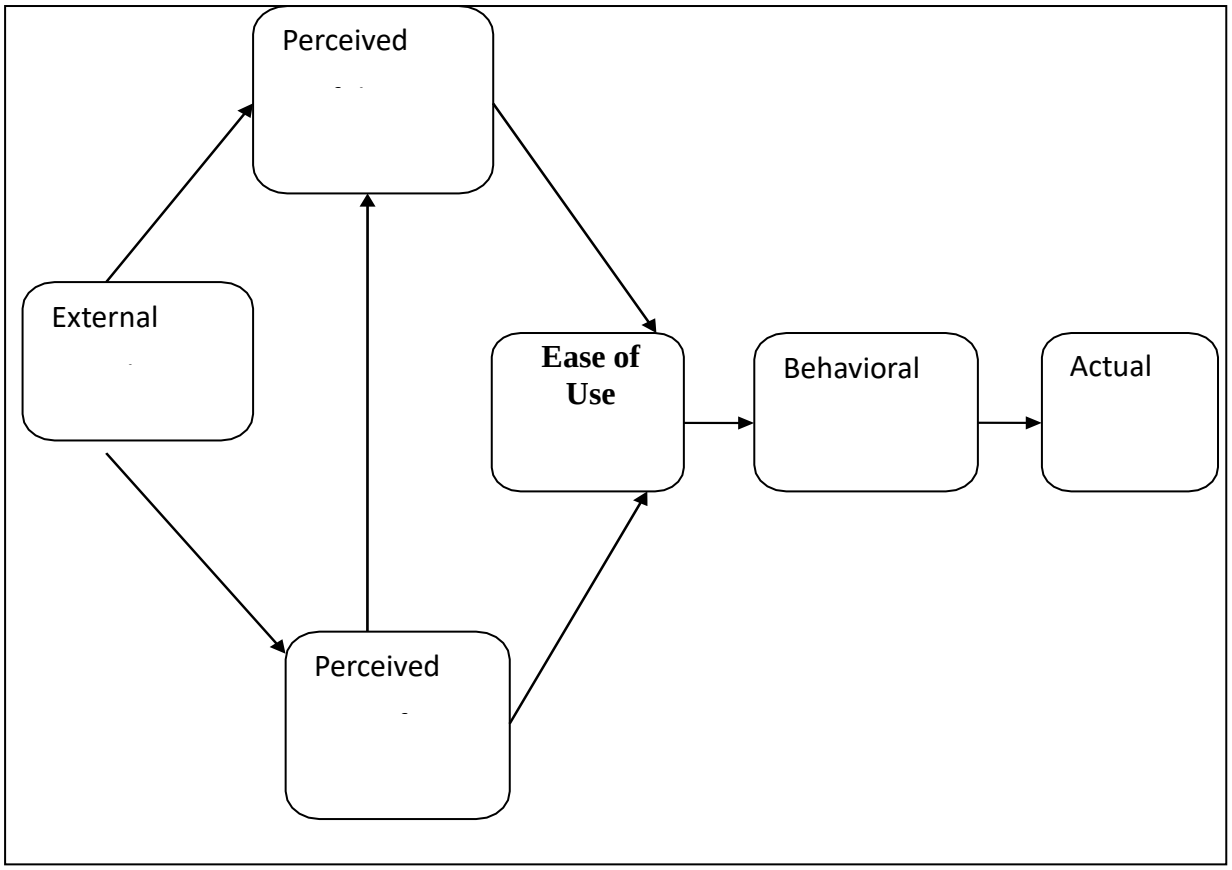

Figure 1: Technology Acceptance Model
(Source: Adapted from (Kamutuezu, 2016).

In the context of this study, TAM is instrumental in understanding the behavioral dynamics that influence digital banking adoption in Nepal. Perceived Usefulness refers to customers' belief that digital banking will enhance their financial transactions, aligning with findings from Armenta and others that utility is a key motivator for technology use. Perceived Ease of Use evaluates the simplicity and effortlessness associated with digital banking platforms, which is particularly relevant in Nepal, where digital literacy levels vary significantly across regions. Studies by Kazi (2013) further highlight the technological focus of TAM while critiquing its limited consideration of individual differences such as age and gender, factors highly pertinent to Nepal's diverse demographic landscape.

Research findings suggest that integrating TAM's principles with localized insights—such as infrastructural disparities and socio-cultural attitudes—can offer actionable strategies for increasing digital banking adoption. For instance, addressing usability concerns through user-friendly interfaces and ensuring perceived credibility through robust cybersecurity measures align with TAM's focus on utility and simplicity.

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Research Gap

while global literature provides valuable frameworks for understanding digital banking adoption, the unique challenges and opportunities within Nepal necessitate localized research. This study seeks to bridge the identified gaps by examining the interplay of behavioral, technological, and systemic factors influencing digital banking adoption in Nepal. By doing so, it contributes to the growing body of knowledge on digital transformation in developing economies and supports the formulation of targeted strategies to enhance digital banking adoption in Nepal.

Conceptual Framework

A study framework serves as the foundation for considering what to accomplish and what it means while being impacted by the opinions and academic work of others. A framework can assist in illuminating the rationale behind a study's choice of methodology. It can also assist us in comprehending and utilizing the thoughts of those who have carried out identical actions. Framework can be compared to a road map. The conceptual model listed below was created using the literature review as a guide. The mentioned literature is heavily incorporated into the model. This study specifically looks at a number of online banking characteristics, including accessibility, dependability, convenience, privacy, and security, as antecedents for the adoption of digital banking.

The following study framework model is suggested with reference to the abovementioned literature review in order to close the research gaps. The following theoretical framework, which is shown in figure 3, is suggested with regard to literature review in order to close the research gaps (Matlala, 2023).

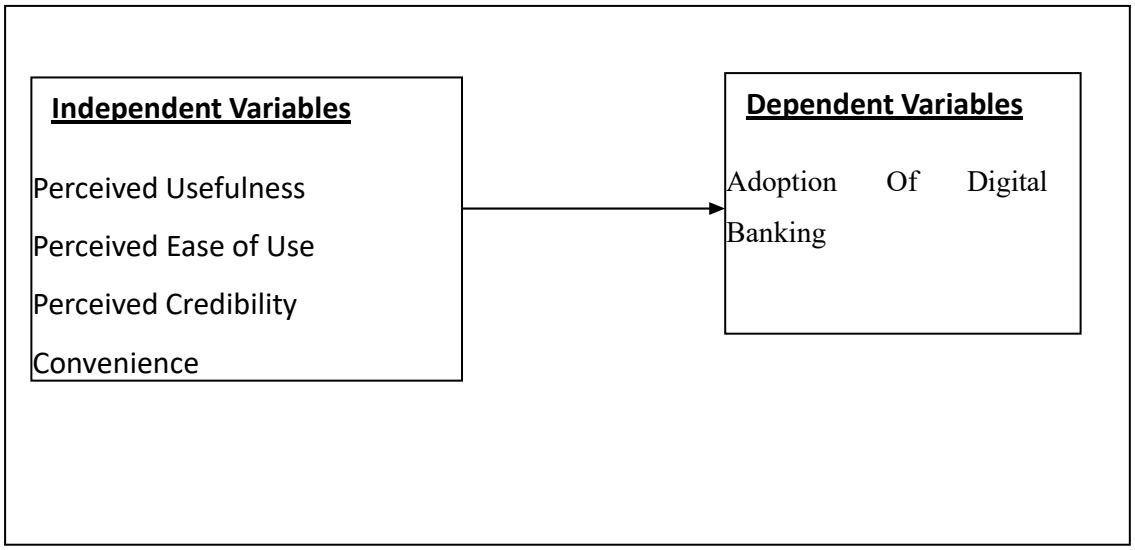

Figure 2: Theoretical Framework of the Study

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Methods

Design

The research design aims to address the research question and manage variability effectively. According to Kerlinger (1980), it encompasses the plan, structure, and strategy for investigation. The study employed a hybrid approach combining descriptive and analytical methods. The descriptive method was utilized primarily for conceptualization, while the analytical approach addressed variable interrelations. This structured approach ensured the accuracy and comprehensiveness of data collection and analysis (Rahi, 2012).

Data Collection

Population and Sample

The target population for this study consisted of customers of commercial banks in Nepal, particularly those using digital banking platforms. To achieve representativeness, the study utilized a sample size of 380 respondents, distributed across various demographics and geographical regions of Nepal.

Sampling Frame and Strata

The sampling frame included customers of commercial banks who actively use or have the potential to use digital banking services (Kandel, Bhattarai, & Timilsina, 2024). To ensure diversity, the sample was stratified into the following strata:

1. **Age Groups:** Respondents were categorized into five age groups: below 20, 20-29, 30-39, 40-49, and 50 and above. Each group provided insights into generational differences in digital banking adoption.
2. **Gender:** Both male and female respondents were included to understand gender-based preferences and challenges.
3. **Geographical Location:** Respondents were selected from urban, semi-urban, and rural areas to capture variations in access and adoption of digital banking services.
4. **Education Levels:** Respondents were categorized based on their highest educational qualifications: below secondary, secondary, undergraduate, and postgraduate levels.
5. **Occupation:** Categories included students, working professionals, homemakers, and retirees to explore occupational influences on digital banking adoption.

Sampling Techniques

A mixed sampling technique, combining purposive and convenience sampling, was employed to ensure a diversified respondent pool. Purposive sampling helped target specific groups likely to use digital banking platforms, while convenience sampling enabled the collection of data from readily available respondents (Etikan, Musa, & Alkassim, 2016). Questionnaires were distributed to individuals across different strata, with an emphasis on those actively engaged with digital banking. Due to time and resource constraints, questionnaires were disseminated in person to known contacts, as well as via social media platforms such as Facebook, Viber, and Instagram. This method is effective in exploratory research where representative and diverse samples are crucial (Creswell, 2014).

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Instrumentation

Data collection was conducted using a self-administered questionnaire, which incorporated questions drawn from existing validated studies (Falahat, 2019; Ghimire, Rai, & Dahal, 2022, p. 13). The questionnaire comprised two main sections: demographic profiles (gender, age, education, occupation) and questions related to independent and dependent variables. Respondents were asked to rate their agreement with statements on a five-point Likert scale, ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). The questionnaire was distributed digitally through email and social media channels to maximize reach and convenience.

Hypotheses

The study developed the following hypotheses to test the relationships between variables:

H1: There is a positive and significant relationship between perceived usefulness (PU) and the adoption of digital banking (ADOP).

H2: There is a positive and significant relationship between perceived ease of use (PEOU) and the adoption of digital banking (ADOP).

H3: There is a positive and significant relationship between perceived credibility (PCRED) and the adoption of digital banking (ADOP).

H4: There is a positive and significant relationship between convenience (CONV) and the adoption of digital banking (ADOP).

Tools of Analysis

Descriptive Analysis

Descriptive analysis was used to outline the demographic characteristics of the respondents and summarize the variables influencing digital banking adoption. Frequencies, percentages, means, and standard deviations were employed to characterize the data effectively.

Correlation Analysis

To identify relationships between variables, Pearson's correlation analysis was conducted. This method was chosen to determine the type and strength of associations between independent variables (e.g., perceived usefulness, perceived ease of use) and the dependent variable (adoption of digital banking).

Regression Analysis

Multi-linear regression analysis was applied to understand the impact of independent variables on the dependent variable, both individually and collectively. The regression model used in this study is as follows:

$Y = \alpha + \beta 1X1 + \beta 2X2 + \ldots + \beta pXp + e_i$

Where:

- Y: Dependent variable (Adoption of Digital Banking - ADOP)
- X1: Perceived Usefulness (PU)
- X2: Perceived Ease of Use (PEOU)
- X3: Perceived Credibility (PCRED)
- X4: Convenience (CONV)

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- β: Coefficients representing the impact of each independent variable
- e_i: Error term

The specific regression equation for this study is:

$ADOP = \alpha + \beta1(PU) + \beta2(PEOU) + \beta3(PCRED) + \beta4(CONV) + e_i$

This model evaluates the influence of key factors on the adoption of digital banking.

Ethical Considerations

This study adhered to ethical research practices by obtaining informed consent from all participants before data collection. Respondents were briefed about the study's purpose, their rights to confidentiality, and their ability to withdraw at any stage without repercussions. Data confidentiality was maintained, and all identifying information was anonymized to protect respondents' privacy. Ethical approval for the study was secured from the relevant institutional review board, ensuring compliance with national and international ethical standards.

Results

Digital Banking Users Analysis

Demographic Analysis of Respondents

The demographic profile of respondents was analyzed to understand the characteristics of digital banking users. The analysis includes gender, age, educational level, and occupation.

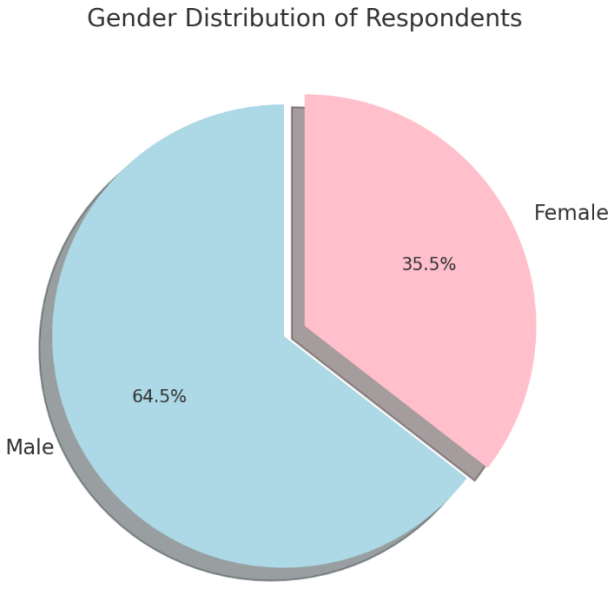

Figure 3 illustrates the gender distribution among respondents in the study. Males constituted a majority, representing 64.5% (245 respondents) of the sample, while females accounted for 35.5% (135 respondents). This disparity indicates a higher participation rate among male respondents in the survey on digital banking usage.

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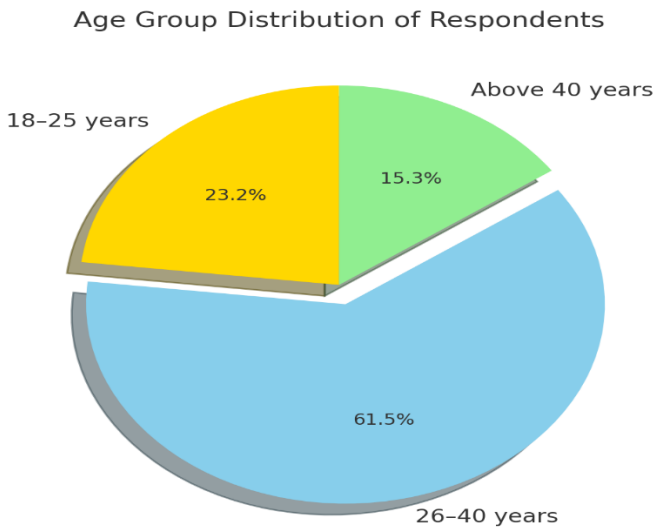

Figure 4 represents the age group distribution among respondents. The majority (61.6%, 234 respondents) were between 26–40 years old, followed by 23.2% (88 respondents) in the 18–25 years age group. The smallest proportion (15.3%, 58 respondents) belonged to the above 40 years age group. This indicates that digital banking usage is most prominent among middle-aged adults.

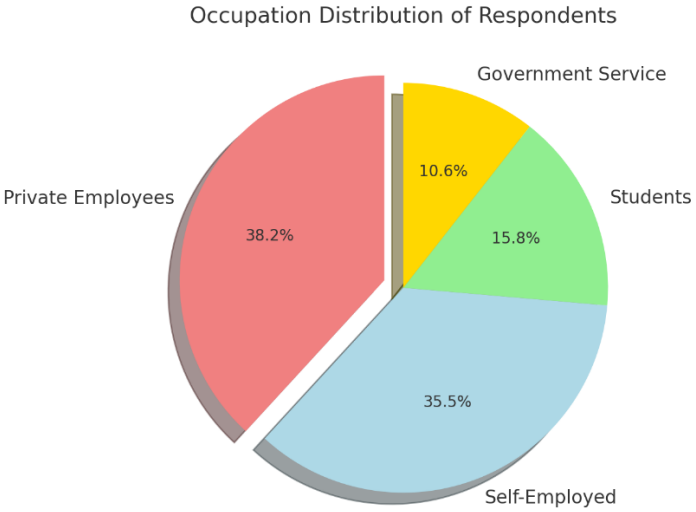

Figure 5 illustrates the occupation distribution among respondents. Private employees formed the largest group, accounting for 38.2% (145 respondents). Self-employed individuals closely followed at 35.5% (135 respondents). Students represented 15.8% (61 respondents), while government service employees constituted the smallest group at 10.6% (39 respondents). This highlights that digital banking is predominantly utilized by private sector employees and self-employed individuals.

Figure 6 represents the educational level distribution of respondents. The majority of participants held a bachelor's degree, comprising 40.8% (155 respondents). This was followed by individuals with a Plus 2 educational qualification, accounting for 30.0% (114 respondents).

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Respondents with a master's degree represented 16.1% (61 respondents), while those with an SLC level of education made up 12.9% (49 respondents). The distribution indicates a predominance of higher education levels among digital banking users, with bachelor's degree holders forming the largest segment.

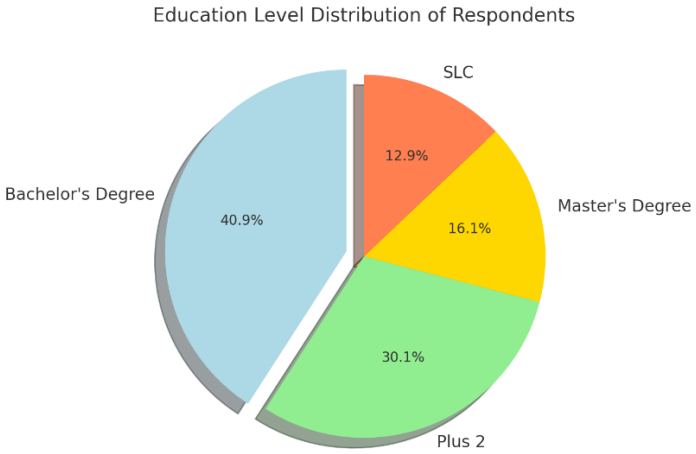

Figure 7 represents the educational level distribution of respondents. The majority of participants held a bachelor's degree, comprising 40.8% (155 respondents). This was followed by individuals with a Plus 2 educational qualification, accounting for 30.0% (114 respondents). Respondents with a master's degree represented 16.1% (61 respondents), while those with an SLC level of education made up 12.9% (49 respondents). The distribution indicates a predominance of higher education levels among digital banking users, with bachelor's degree holders forming the largest segment.

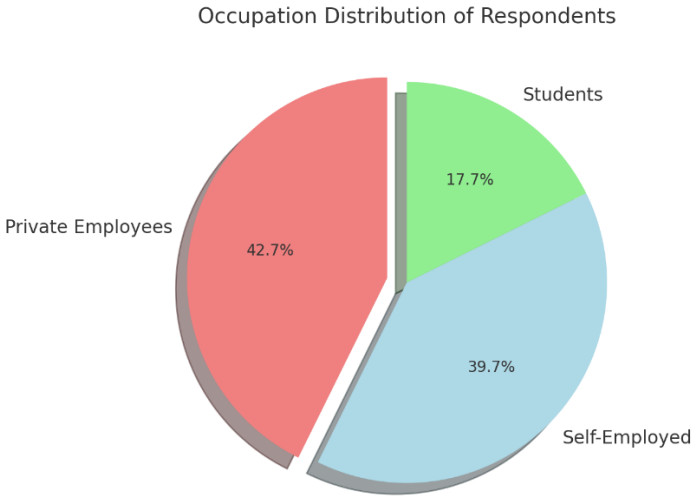

Figure 8 demonstrates the occupation distribution among respondents. Private employees constituted the largest segment, making up **38.2%** of the sample. Self-employed individuals followed at **35.5%**, while students accounted for **15.8%**. This chart underscores the significant

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participation of working professionals and self-employed individuals in digital banking, with students forming a smaller portion of the user base.

Internet Banking Analysis

Table 7: *Internet Usage for Banking Frequency*

Frequency	Percentage (%)	Respondents (n)
Daily	**18.7**	**71**
Once a week	**44.5**	**169**
Every fortnight	**18.4**	**70**
Once a month	**18.4**	**70**

Table 7 highlights the frequency of internet usage specifically for banking purposes. Weekly banking usage is most prevalent (44.5%), while daily banking usage is considerably lower at 18.7%. Fortnightly and monthly usage share identical percentages, each at 18.4%.

Table 8: *Internet Banking Usage Trends by Age Group*

Age Group	Daily Internet Usage (%)	Weekly Internet Usage (%)	Other Internet Usage (%)
18–25 years	88.6	8.0	3.4
26–40 years	91.2	7.2	1.6
Above 40 years	89.7	8.3	2.0

Table 8 demonstrates daily internet usage is highest among the 26–40 years age group (91.2%). Weekly usage is consistent across all groups, slightly lower among those aged 26–40 years (7.2%). "Other" usage patterns remain minimal across age groups, with the 18–25 years demographic showing a slightly higher percentage (3.4%).

Table 9: *Internet Banking Usage Trends by Education Level*

Education Level	Daily Internet Usage (%)	Weekly Internet Usage (%)	Other Internet Usage (%)
SLC	85.7	10.2	4.1
Plus 2	89.5	8.0	2.5
Bachelor's Degree	92.1	6.0	1.9
Master's Degree	90.0	7.5	2.5
Above Master's	100.0	0.0	0.0

Table 9 shows that internet usage is predominantly daily across all educational levels, peaking at 100% for individuals with above-master's qualifications. Weekly usage trends decrease as education level increases, with "other" usage patterns being negligible, particularly among highly educated respondents.

Table 10: *Internet Banking Usage Trends by Occupation*

Occupation	Daily Internet Usage (%)	Weekly Internet Usage (%)	Other Internet Usage (%)
Private Employees	92.0	6.0	2.0
Self-Employed	88.5	8.5	3.0
Students	85.7	10.2	4.1
Government Service	89.4	7.6	3.0

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Table 10 highlights that private employees exhibit the highest daily internet usage (92.0%), followed by government service employees (89.4%). Weekly and other usage patterns are more common among students and self-employed individuals, suggesting variability in internet access based on occupational demands.

Descriptive Analysis of Key Variables

Table11: *Descriptive Statistics*

Variable	N	Min	Max	Mean	Std. Dev.
PU	377	1.0	5.0	4.19	0.72
PEOU	378	1.0	5.0	4.17	0.74
PCRED	378	1.0	5.0	4.17	0.74
CONV	378	1.0	5.0	4.25	0.72
ADOP	378	1.0	5.0	4.19	0.70

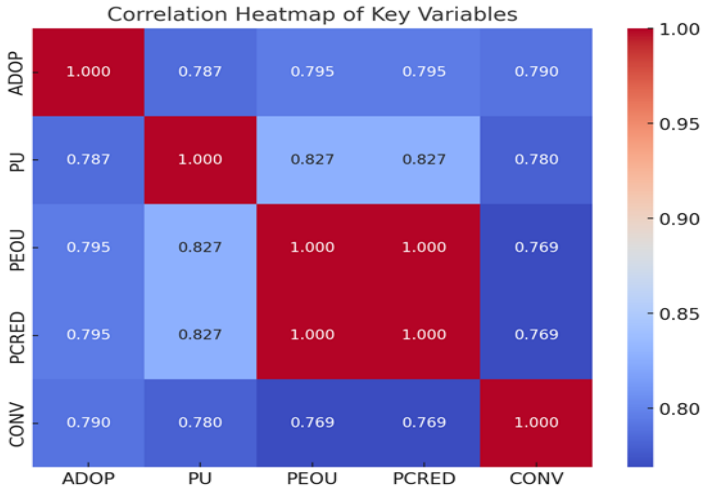
The table 11 presents descriptive statistics for five key variables: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Perceived Credibility (PCRED), Convenience (CONV), and Adoption (ADOP) of Internet Banking.

The mean scores for all variables exceed 4.0, with Convenience (CONV) showing the highest average at 4.25. This suggests that respondents perceive convenience as the most positively rated factor in their Internet Banking experience. PU and ADOP both have a mean of 4.19, indicating strong agreement with their significance, while PEOU and PCRED share a slightly lower mean of 4.17.

The standard deviation values range from 0.70 to 0.74, indicating moderate variability in respondents' ratings for all factors. This level of dispersion shows that while most respondents rate these factors positively, there is some variation in individual perceptions.

The findings highlight those users generally find Internet Banking useful, easy to use, credible, and convenient. Among these, convenience is the most strongly rated attribute, suggesting it plays a critical role in driving adoption. The consistency of standard deviations across variables also reflects stable user perceptions across the measured dimensions.

Correlation Analysis



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The heatmap visualizes the relationships between key variables related to the adoption of Internet Banking (ADOP). Strong positive correlations are observed among the variables:
Perceived Ease of Use (PEOU) has the highest correlation with ADOP (r=0.795r = 0.795r=0.795), indicating that ease of use is critical in driving adoption.
Perceived Credibility (PCRED) also strongly correlates with ADOP (r=0.795r = 0.795r=0.795), suggesting trust in the platform influences user acceptance.
Convenience (CONV) shows a high positive correlation with ADOP (r=0.790r = 0.790r=0.790), highlighting the role of seamless and efficient service in adoption.
Perceived Usefulness (PU) correlates positively with ADOP (r=0.787r = 0.787r=0.787), indicating that users value the benefits of Internet Banking.
These correlations are statistically significant ($p<0.01p < 0.01p<0.01$), underscoring the importance of these factors in influencing digital banking adoption. The heatmap provides a clear and visually compelling summary of these interrelationships.

Regression Analysis

Table 12: Regression Analysis Results

Coefficient	B	Std. Error	t	p-value
Constant	0.399	0.122	3.276	0.000
PU	0.268	0.053	5.070	0.000
PEOU	0.766	0.030	25.349	0.000
PCRED	0.287	0.287	5.780	0.000
CONV	0.346	0.346	7.633	0.000

Table 12 displays the results of the regression analysis, identifying the influence of each predictor variable on the adoption of Internet Banking (ADOP):
PEOU has the strongest influence ($\beta = 0.766$, $p < 0.01$), suggesting ease of use is a critical driver of adoption.
Convenience (CONV) follows as a significant factor ($\beta = 0.346$, $p < 0.01$).
Perceived Credibility (PCRED) and **Perceived Usefulness (PU)** also significantly influence ADOP ($\beta = 0.287$ and $\beta = 0.268$, respectively, $p < 0.01$).
The constant value (B = 0.399) represents the baseline level of ADOP when all predictors are zero.

Table 13: Model Summary

Metric	Value
R Square	0.732
Adjusted R Square	0.730

Table 13 summarizes the model's overall fit:
R Square (0.732) indicates that 73.2% of the variability in ADOP is explained by the predictors in the model.
Adjusted R Square (0.730) accounts for the number of predictors, confirming the model's explanatory power.

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Regression Equation:

ADOP=0.399+(0.268×PU) +(0.766×PEOU) +(0.287×PCRED) +(0.346×CONV)

This regression equation highlights the contributions of each variable to ADOP, with PEOU exerting the most substantial influence. The analysis emphasizes the importance of ease of use, convenience, credibility, and usefulness in driving Internet Banking adoption.

Table 14: Hypothesis Testing Results

Hypothesis	p-value	Decision
H1: Perceived Usefulness (PU) positively impacts Adoption of Internet Banking (ADOP)	0.000	Accepted
H2: Perceived Ease of Use (PEOU) positively impacts Adoption of Internet Banking (ADOP)	0.000	Accepted
H3: Perceived Credibility (PCRED) positively impacts Adoption of Internet Banking (ADOP)	0.000	Accepted
H4: Convenience (CONV) positively impacts Adoption of Internet Banking (ADOP)	0.000	Accepted

The hypothesis testing results emphasize the critical role of perceived usefulness (PU), perceived ease of use (PEOU), perceived credibility (PCRED), and convenience (CONV) in driving the adoption of Internet Banking. Each of these factors was found to have a statistically significant positive impact on adoption (p-value = 0.000), confirming their importance as key determinants. Among these, PEOU emerged as the strongest predictor, highlighting the importance of user-friendly and intuitive interfaces in encouraging adoption. PU reinforces the need for users to perceive tangible benefits from using Internet Banking, while PCRED underscores the necessity of building trust and ensuring platform reliability. Similarly, CONV demonstrates the significance of seamless and efficient services in fostering user engagement. Collectively, these findings validate the hypotheses and align with established models of technology adoption, such as the Technology Acceptance Model (TAM), emphasizing that user perceptions and trust are pivotal in shaping digital banking behaviors.

Discussion

The demographic analysis provides valuable insights into the characteristics of digital banking users, highlighting the influence of gender, age, education level, and occupation on adoption trends. The higher representation of males (64.5%) among users aligns with findings from prior studies, such as those by Sharma and Singh (2020), which suggest that men are more likely to adopt digital banking due to greater financial independence and frequent engagement with technology. Similarly, the predominance of middle-aged adults (26–40 years, 61.6%) is consistent with research by Alzaidi (2022), which identified this group as being actively involved in financial activities and possessing sufficient technological literacy to adopt digital banking. This demographic group's active economic participation makes them particularly inclined towards leveraging digital solutions for their banking needs, highlighting the intersection of technological accessibility and financial behaviors.

Educational attainment is another critical determinant of digital banking adoption. This study found that respondents with a bachelor's degree (40.8%) formed the largest segment,

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supporting the findings of (Sekyere, 2016), who noted that higher educational levels enhance digital literacy and openness to adopting financial technologies. Furthermore, individuals with higher educational attainment often exhibit greater awareness of the benefits of digital banking, such as time efficiency and transaction transparency, making them more likely to adopt these technologies. The significant participation of private
employees (38.2%) and self-employed individuals (35.5%) further underscores the importance of professional engagement in driving adoption, corroborating findings by Kandel and Timilsana (2024), emphasized the role of income stability and work-related banking needs. These occupational groups frequently rely on digital banking for streamlined management of finances, such as payroll, invoicing, and regular transactions.

Internet banking usage patterns reveal that weekly usage is most common (44.5%), suggesting that users interact with digital platforms primarily for periodic transactional needs rather than daily activities. This aligns with the observations of Martins, Oliveira, & Popovič (2014), reported that convenience-driven periodic banking behaviors dominate over habitual usage. This trend reflects a pragmatic approach to digital banking, where users prefer accessing the platform only when necessary, avoiding over-reliance on the technology for routine interactions. Additionally, daily usage among highly educated individuals (e.g., master's degree holders, 90%) and private employees (92.0%) underscores the role of work-related demands and advanced digital skills in shaping adoption behaviors, as highlighted by Kaur and Batra (2023). This finding reinforces the importance of tailoring digital banking solutions to cater to the specific needs of working professionals and tech-savvy users, ensuring they derive maximum utility from the platform.

The regression analysis further underscores the critical determinants of digital banking adoption. Perceived ease of use (PEOU) emerged as the strongest predictor ($\beta = 0.766$, $p < 0.01$), aligning with the Technology Acceptance Model (TAM) proposed by Davis (1989), which emphasizes ease of use as a fundamental driver of technology acceptance. Convenience ($\beta = 0.346$, $p < 0.01$) also plays a significant role, consistent with studies by Al-Emadi, Kassim, & Razzaque (2021), highlighted the importance of efficient, user-friendly platforms in encouraging adoption. Additionally, perceived credibility ($\beta = 0.287$, $p < 0.01$) reflects the necessity of trust, as emphasized by Agarwal et al. (2020), while perceived usefulness ($\beta = 0.268$, $p < 0.01$) reinforces the value proposition of digital banking. These findings collectively highlight that user perceptions regarding the functionality and reliability of digital banking platforms are instrumental in shaping adoption behavior, underscoring the multifaceted nature of user decision-making.

Correlation analysis supports these findings, with PEOU exhibiting the highest correlation ($r = 0.795$) with adoption. This reinforces the need for banks to simplify their platforms to maximize usability. The model's R Square value (0.732) and Adjusted R Square (0.730) indicate that the predictors collectively explain 73% of the variability in adoption, showcasing the robustness of the findings. Similar explanatory power has been reported by recent studies, such as those by Nihayah & Purnama, (2024) .This high degree of model fit suggests that the identified

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predictors are not only statistically significant but also practically relevant, providing financial institutions with actionable insights to optimize their digital offerings.

In practice, these findings suggest several actionable strategies for financial institutions. Enhancing user-centric design, particularly by simplifying user interfaces, can address PEOU. Building trust through improved security measures and transparent communication can bolster perceived credibility. Educational campaigns targeting less technologically adept demographics can further bridge the digital divide. Moreover, tailoring solutions to meet the needs of professionals and self-employed individuals can enhance adoption among these key segments, as suggested by Shkurdoda & Puczyk (2024). Financial institutions must also recognize the importance of adapting their platforms to evolving user expectations, ensuring that convenience and accessibility remain central to their digital strategies.

Summary

This study identifies critical factors influencing digital banking adoption, including demographic characteristics, perceived ease of use, convenience, credibility, and usefulness. It emphasizes that digital banking users are predominantly middle-aged, educated, and professionally engaged individuals who interact with platforms for specific needs rather than habitual use. User perceptions of functionality and reliability significantly drive adoption, aligning with well-established frameworks like the Technology Acceptance Model (TAM). These findings underscore the importance of user-focused design, targeted outreach to underserved groups, and fostering trust through secure and reliable services.

Action Implications

Simplify User Interfaces: Banks should focus on creating intuitive and accessible platforms that cater to diverse user segments, addressing the strong influence of ease of use.

Build Trust: Implementing robust security measures and transparent policies can enhance perceived credibility, alleviating user concerns about privacy and fraud.

Educate Users: Targeted campaigns to educate less technologically adept populations can bridge the digital divide, encouraging broader adoption.

Tailored Solutions: Offering customized features for professionals and self-employed users can address their specific needs, improving engagement and satisfaction.

Continuous Innovation: Banks must innovate continuously to meet evolving user expectations, ensuring that platforms remain relevant and user-friendly over time.

Conclusion

This study reaffirms the importance of demographic characteristics, user perceptions, and contextual factors in driving Internet Banking adoption. By prioritizing ease of use, convenience, credibility, and perceived usefulness, financial institutions can significantly enhance user experiences and broaden adoption. These findings emphasize the need for banks to continually innovate and adapt their platforms to align with user preferences, ensuring sustained engagement and satisfaction. Future research should explore additional factors, such as cultural and regional influences, to provide a more comprehensive understanding of digital banking trends. Furthermore, longitudinal studies can offer deeper insights into how evolving

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technological advancements and user behaviors influence the trajectory of digital banking adoption over time.

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