Pak. j. life soc. Sci. (2024), 22(2): 20694-20707 E-ISSN: 2221-7630;P-ISSN: 1727-4915

Pakistan Journal of Life and Social Sciences
www.pjlss.edu.pk

https://doi.org/10.57239/PJLSS-2024-22.2.00171

RESEARCH ARTICLE

Sustainable Consumer Behavior in Omni-Digital Banking: Analyzing the Impact of Digital Transformation

Anitha M[1]* and Hemanathan M[2]

[1]Department of Commerce, Faculty of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur-603203, Tamil Nadu, India
[2]Department of Commerce, Faculty of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur-603203, Tamil Nadu, India

ARTICLE INFO

Received: Oct 23, 2024

Accepted: Dec 20, 2024

Keywords

Omni-Digital Banking

Consumer Behavior

Mobile Banking

UTAUT

Blockchain Technology

***Corresponding Author:**

am8161@srmist.edu.in

ABSTRACT

Digital banking in India has rapidly grown, positioning the country as a global leader with approximately 295.5 million users by 2022, surpassing the United States by over 70 million. This transition from Omni-channel to Omni-digital banking, where customers exclusively use digital platforms, reflects a growing engagement with digital financial services. However, research focusing on sustainable consumer behavior in Omni-digital banking is limited, with most studies concentrating on online and mobile banking. To address this gap, a study was conducted using the Unified Theory of Acceptance and Use of Technology (UTAUT) model, targeting consumers engaged in sustainable digital banking in Tamil Nadu. The study utilized a survey-based approach to collect data and employed statistical methods for analysis. Results highlighted key preferences, such as the use of smartphones for banking, and dissatisfaction with transaction limits and server problems. Statistical analysis revealed that performance expectancy, effort expectancy, and perceived credibility significantly influenced consumers' behavioral intentions, while social influence and personal innovativeness showed no significant impact. Demographic variables, including age, education, employment, and income, were found to significantly affect consumer behavior. Based on these findings, recommendations for financial institutions include enhancing mobile banking functionalities, addressing technical issues, promoting gender inclusivity in digital platforms, and tailoring services based on income groups. Furthermore, integrating technologies like block chain for better transparency and service quality is advised. Despite challenges like limited responses, this research provides valuable insights into Omni-digital banking behavior and serves as a foundation for future studies and policy interventions to enhance sustainable digital banking engagement.

INTRODUCTION

Banking in India has a rich history, originating from ancient merchants, goldsmiths, and local lenders, evolving into the modern commercial banking system. Banks today play a critical role in managing funds, offering loans, and providing a wide range of financial services. The banking sector has seen significant transformation due to disruptive technologies, impacting financial institutions globally.

This evolution has made the banking industry more competitive, requiring banks to adopt cutting-edge solutions and services to meet customer needs. The growth and performance of the banking sector are essential for the development of nations like India, contributing to wealth generation, job creation, and economic progress (Syed Ibrahim, 2010). The Indian banking system plays a crucial role in the country's economic development, consisting of various financial institutions such as Nationalized Banks (NB), Regional Rural Banks (RRBs), Cooperative Societies, and Development Banks. These institutions serve critical sectors like agriculture, trade, and industry (Deolalkar, 2010). The Reserve Bank of India (RBI) acts as the apex regulatory body, overseeing the entire banking sector. Specialized institutions such as the Industrial Development Bank of India (IDBI), National Bank for Agriculture and Rural Development (NABARD), and the Export-Import Bank of India (EXIM Bank) cater to specific sectors like industry and agriculture. Scheduled Commercial Banks (SCBs) are categorized into Nationalized Banks, State Bank of India (SBI), Private Commercial Banks (PCBs), Regional Rural Banks (RRBs), and Foreign Banks (FBs). These banks benefit from RBI services such as rediscounting bills and participation in the clearing house. Non-Scheduled Banks (NSBs), not listed under the RBI's second schedule, are still required to adhere to Cash Reserve Ratio (CRR) guidelines. They are ineligible for regular loans from the RBI but may receive emergency funds. The system is designed to cater to diverse financial needs, ensuring economic growth and stability. It is continually evolving to meet the challenges of globalization and technological advancements. The Reserve Bank of India (RBI) acts as the apex regulatory body, overseeing the entire banking sector. Specialized institutions like the Industrial Development Bank of India (IDBI), National Bank for Agriculture and Rural Development (NABARD), and the Export-Import Bank of India (EXIM Bank) cater to specific sectors like industry and agriculture.

1.1 Emergence of Digital Banking in India

In India, the rapid advancement of technology has significantly transformed the banking landscape, shifting from traditional banking methods to digital systems. The rise of internet connectivity and lower processing costs have driven banks to incorporate digital platforms, improving both operational efficiency and customer accessibility (Begum, 2018). Digitalization has not only impacted internal management and accounting systems within banks but has also transformed the way financial services are delivered to customers. This shift has made it necessary for banks to adopt technology-driven solutions to stay competitive in an increasingly globalized market (Melnychenko et al., 2020). Additionally, government initiatives, such as the Digi Dhan Abhiyan and the establishment of digital banking units across 75 districts, aim to enhance financial inclusion and promote a cashless economy (Vedang Ratan Vatsa, 2020). These efforts aim to increase financial inclusion and promote cashless transactions, targeting a more accessible financial system. The rise of smart phone penetration, which is projected to reach 96% by 2040, indicates a growing digital shift, further integrating mobile technology into daily financial transactions. Tamil Nadu, along with Karnataka, has been at the forefront of this transformation in South India, leading in the number of digital banking units. This collaboration between states is fostering shared best practices and collectively advancing digital infrastructure, contributing to the overall growth of a connected, inclusive financial ecosystem.

1.2 Digital banking services in India

Digital banking in India began in 1987 with the launch of ATMs by HSBC Bank, revolutionizing banking convenience by allowing cash withdrawals, balance inquiries, and other services without branch visits.(Virdi & Mer, 2023) The introduction of internet banking by ICICI Bank in 1998 and mobile banking in 2008 marked further milestones, empowering customers to conduct transactions, fund transfers, and manage accounts from home. Today, ATMs offer services like cheque deposits, cardless withdrawals, and UPI-based transactions, while mobile wallets and chatbots simplify non-banking transactions and customer engagement (Raimee et al., 2021) A major game-changer in India's digital payments landscape has been the Unified Payments Interface (UPI), launched by NPCI. UPI enables seamless, cost-free transactions through platforms like Google Pay, PhonePe, and BHIM, facilitating over 10 billion transactions monthly. Its global adoption includes countries like Bhutan,

France, and the UAE. Features like UPI Lite allow offline transactions, further promoting financial accessibility. (**Navita Roy & Tandon**, 2022) Digital banking services, including internet banking, mobile apps, and third-party aggregators, have democratized financial services, advancing financial inclusion. These innovations not only improve customer convenience and reduce operational costs but also support India's transition toward a cashless economy. Looking forward, emerging technologies like AI-powered financial tools and blockchain-based solutions are expected to further transform India's banking and payment systems. (RAJESWARI et al., 2021)

1.3 Key Digital Payment Methods and Platforms in India(Razor Pay, 2024)

- **Mobile Banking :** Mobile banking consolidates financial services into a single app, allowing users to perform tasks like fund transfers, account monitoring, bill payments, and ticket bookings. Consumers can download a banking app, set up a user profile, and access various services via their smart phones (Deshwal, 2015)
- **Third-Party Aggregators :** Third-party payment aggregators enable merchants to accept payments through various methods, including credit/debit cards, e-wallets, and online banking. By consolidating transactions onto one platform, these aggregators simplify payment processing for businesses and consumers. Popular platforms include Paytm and PhonePe. (Rama Karthik, 2023)
- **Mobile Wallets :** Mobile wallets allow users to store payment card details and make secure payments linked to their bank accounts. Payment methods include debit cards, credit cards, or reward cards. Wallets are secured using PINs, face recognition, or QR codes for transactions.(Gupta, 2017)
- **Types of Payments on UPI Platforms**

UPI platforms offer several payment methods, especially through third-party aggregator apps (Shaji George, 2023):

  a. **QR Payments:** Users scan a QR code to complete transactions by entering their UPI PIN.
  b. **Mobile Number Payments:** Payments are made by selecting or entering the recipient's mobile number.
  c. **Account Number Payments:** Transactions can be completed by entering the recipient's bank account details and IFSC code.
  d. **UPI ID Transfers:** Payments are made using a unique UPI ID linked to multiple mobile numbers. (Kumari & Suresh Kumar, 2018)
  e. **Self-Transfers:** Users can manage multiple accounts within the same app for internal fund transfers.

- **Plastic Cards:** lastic cards, including debit, credit, prepaid, and forex cards, are integral to India's digital economy. RuPay, launched by the National Payments Corporation of India (NPCI), has emerged as an indigenous alternative to international payment networks, fostering financial inclusion and reducing transaction costs. (George et al., 2023)

1.4 Fin Tech Growth in India: Transforming Financial Services

India's rapid economic growth has significantly boosted the demand for diverse financial services, going beyond traditional banking solutions. FinTech companies have emerged as pivotal players, offering innovative services that include seamless transactions, efficient money transfers, and accessible investment opportunities (Virdi & Mer, 2023). By leveraging advanced technologies such as Artificial Intelligence (AI), Machine Learning (ML), and blockchain, these firms are revolutionizing core financial services, contributing to greater financial inclusion and empowerment. India's FinTech sector ranks third globally in funding, fueled by factors such as a tech-savvy population, affordable mobile devices, and government initiatives like the Jan Dhan Yojana and India Stack**.** The Reserve Bank of India (RBI) introduced the Digital Lending Guidelines in 2023, focusing on transparency, customer protection, and fair lending practices. Digital lending in India has surged by 35%, with AI-driven models improving loan approval rates (Raimee et al., 2021)(Rajeswari & Vijai, 2021). Despite challenges such as cybersecurity threats and regulatory complexities under the Digital Personal Data

Protection Act**,** the sector is poised for continued growth. The Indian digital lending market is projected to reach USD 1 trillion by 2024, driven by mobile technology and increasing digital literacy (Bhattacharjee et al., 2024). Fin Tech continues to evolve, fostering collaboration through initiatives such as Banking as a Service and contributing to a more cashless and inclusive financial ecosystem.

1.5 The Rise of Neo Banks in India

Neo banks, fully digital banking platforms without physical branches, have revolutionized the banking sector in India by offering streamlined, tech-driven services. Unlike traditional banks, neo banks provide a hassle-free, online-only experience, allowing customers to open accounts, access loans, and manage savings from their devices (Shabu & Ramankutty, 2022). Due to Reserve Bank of India (RBI) restrictions, neo banks collaborate with traditional banks but cater to the evolving needs of tech-savvy consumers, particularly millennials. These digital-first institutions emphasize user experience, offering features such as instant savings accounts, attractive credit card deals, and loans tailored to individuals and startups. Neo banks address gaps left by conventional banks, especially in supporting underserved communities. They are categorized into front-end neo banks, digital banking units like SBI's YONO, and full-stack digital banks, which are awaiting legalization in India. With the rising usage of smartphones and increasing internet penetration, neo banks are reshaping India's banking landscape (Monis & Pai, 2023).

1.6 Omni-Digital Banking: Transforming Customer Behavior in the Digital Era

Omni-digital banking represents a significant shift in the banking sector, catering exclusively to customers who interact with banks through digital channels, such as mobile apps, websites, and tablets, eliminating the need for physical branch visits (Jesus, 2021). Unlike omni-channel banking, which combines digital and physical modes, omni-digital banking operates entirely on digital platforms. The rise of omni-digital banking in India has been driven by several key events, including demonetization in 2016, the Unified Payments Interface (UPI) launch, and the COVID-19 pandemic. According to Finder's 2022 Digital Banking Adoption Report, 26% of Indian adults had digital-only bank accounts in 2022, with this number expected to rise to 46% by 2027 (Efma & Backbase, 2023). The transformation towards digital banking has been fueled by the increasing demand for convenience, efficiency, and security. Technologies such as artificial intelligence, biometric verification, and voice-activated payments are shaping the future of banking, offering customers innovative solutions for seamless financial management(Hakizimana et al., 2023). This shift has enabled banks to better understand customer demographics and behavior, allowing them to tailor services and allocate resources more effectively(Aniqoh et al., 2022) This study examines the engagement behavior of omni-digital banking customers using the UTAUT framework. Key factors such as perceived ubiquity, credibility, design aesthetics, and personal innovativeness are analyzed to understand customer adoption patterns and preferences. This research is pivotal in aligning digital banking services with customer expectations, paving the way for a fully digital banking era

2. STATEMENT OF PROBLEM

The rapid growth of digital banking signifies a major shift from traditional banking methods to more convenient and user-friendly, technology-driven solutions. In India, this transformation gained significant momentum following demonetization and accelerated further during the COVID-19 pandemic, with initiatives like UPI and e-Rupi boosting digital adoption. Omni-digital banking customers, who exclusively rely on digital channels for transactions, are set to lead this change, reducing the need for physical branch visits. Understanding the behavior of these customers is essential for banks as they prepare for a future dominated by digital interactions. This study aims to explore customer usage patterns, payment preferences, and factors influencing engagement behaviors, providing insights for banks to design innovative and flexible products and services. These insights will help enhance the customer experience and drive further growth in the digital banking sector.

3. REVIEW OF LITERATURE:

Digital banking has been extensively studied in both global and Indian contexts, offering valuable insights into its adoption process. These studies provide a comprehensive understanding of the variables influencing digital banking adoption, as derived from different theoretical frameworks. Through comparative assessments, the research highlights the evolving landscape of digital banking, shedding light on the challenges, opportunities, and factors that influence its adoption. This synthesis informs decision-making for industry leaders, regulators, and policymakers while laying the groundwork for future research in this rapidly developing field (Baabdullah et al., 2019).

3.1 Adoption of Digital Banking Services

A study (Shaikh & Amin, 2024) applied the Innovation Diffusion Theory (IDT) to analyze the acceptance of digital banking services. It was found that the adoption of digital banking is primarily driven by factors such as perceived relative advantage, perceived compatibility, self-efficacy, and perceived expected benefits. However, perceived complexity did not significantly affect adoption, suggesting that ease of use may not be as crucial a factor as previously anticipated. These findings contribute to a better understanding of the key drivers behind digital banking adoption, especially among non-users.

3.2 Mobile Payment Experience Using QR Codes

(Eren, 2024) explored the impact of various quality aspects, including perceived transaction speed, optimism, perceived risk, and the Information System Success Model (ISSM), on the mobile payment experience via QR codes. Using PLS-SEM for data analysis, the study revealed that factors such as perceived transaction speed, system quality, information quality, and optimism significantly influenced customer experience. However, service quality and perceived risk did not have a substantial impact. The study integrates ISSM with marketing concepts and highlights the role of technology-driven financial services in mobile payments, especially during the COVID-19 pandemic.

3.3 The Impact of COVID-19 on Mobile Payment Acceptance

Research by (Kaur & Ali, 2021) investigated the effect of the COVID-19 pandemic on mobile payment acceptance. The empirical study, which surveyed 593 respondents, revealed that trust, perceived security, performance expectancy, and social influence significantly affected mobile payment acceptance. Social distancing and the fear of COVID-19 were found to have the greatest impact, while perceived effort expectancy negatively influenced payment acceptance. These findings suggest that future studies should examine the influence of COVID-19 on mobile payment adoption across different countries and regions

3.4 The Role of Religiosity in Mobile Payment Adoption

An empirical cross-sectional survey (Kadim & Sunardi, 2021), revealed that performance expectancy, social influence, effort expectancy, and facilitating conditions significantly predicted mobile payment usage and behavior. Additionally, the study uncovered a correlation between Islamic religiosity and mobile payment adoption, highlighting the importance of religious beliefs in shaping users' behavioral intentions toward digital payment methods.

3.5 Factors Influencing Digital Wallet Adoption

(Sukis Warningsih, 2021) examined the factors driving the adoption of digital wallets, identifying habit and performance expectancy as the primary enablers. On the other hand, perceived risk was identified as the main barrier to adoption. Trust and social influence emerged as the strongest predictors of mobile payment adoption, with trust playing a key role in encouraging repeated usage.

3.6 Behavioral Intentions in Mobile Banking Usage

In a study by (Pratama & Renny, 2022) the Unified Theory of Acceptance and Use of Technology (UTAUT) framework was applied to assess the impact of various factors on mobile banking usage. The study found that effort expectancy, performance expectancy, habit, facilitating conditions, and trust positively influenced behavioral intentions. Conversely, price value had a negative impact on

mobile banking adoption. The study also found that age and gender moderated the effects of habit and usage behavior, while experience moderated the relationship between behavioral intention and usage behavior.

4. Research Gap

While digital banking is growing in India, there is limited research on Omni-digital banking customers who exclusively use digital channels. Most studies focus on general digital banking users, overlooking the unique behaviors and preferences of Omni-digital customers. Additionally, the influence of demographic factors (e.g., age, income, education) on their banking habits is not well explored. This study aims to fill these gaps by analyzing the factors affecting the adoption and engagement of Omni-digital banking users in Chennai.

5. RESEARCH METHODOLOGY

5.1 Significance of the study

The ongoing digital transformation in banking requires a deeper understanding of how customers engage with digital services. The increasing number of Omni-digital banking customers—those who rely entirely on digital channels for their banking needs—represents the future of banking. Banks must recognize the significance of this emerging customer segment, as failure to adapt could lead to irrelevance in a digitally-driven world. Understanding how Omni-digital banking customers interact with digital services is vital to improving offerings and meeting their evolving expectations. This research is crucial for fostering financial inclusion, guiding product development, and driving innovation within the banking sector. By aligning their services with the preferences of Omni-digital customers, banks can maintain a competitive edge in the digital age.

5.2 Scope of the study

This study exclusively targets Omni-digital banking customers—those who use digital channels for all their banking transactions and do not engage with traditional branch banking. The research primarily focuses on retail banking activities, encompassing services such as payments, investments, inquiries, and other consumer-centric offerings provided by banks. The study is geographically limited to Chennai City, a region recognized for its robust digital banking ecosystem, supported by government initiatives, industrial growth, and the presence of leading educational institutions. These factors have contributed to the region's success in promoting and facilitating digital banking.

5.3 Definition of variables

- **Performance Expectancy**: The degree to which an individual believes that using a particular technology will enhance their job performance or provide personal benefits. This variable corresponds to the perceived usefulness of the technology.
- **Effort Expectancy**: The level of ease associated with using the technology. It reflects the perceived ease of use and indicates how user-friendly and accessible the technology is.
- **Social Influence**: The extent to which individuals perceive that important others—such as peers, family, or colleagues—believe they should adopt and use the technology. This factor highlights the role of social pressures or norms in shaping technology adoption.
- **Facilitating Conditions**: The availability of resources and infrastructure that support effective technology use. This includes access to necessary tools, technical support, and knowledge, enabling seamless integration of technology into daily activities.
- **Behavioral Intention**: An individual's intention or willingness to engage with the technology in the future. It serves as a strong predictor of actual technology usage, reflecting the user's commitment to adopting the technology.
- **Use Behavior**: The actual usage of the technology, measured by frequency, duration, and depth of engagement. This is the tangible manifestation of behavioral intention, showing how often and effectively the technology is utilized.

5.4 Research Questions

- What features of digital banking do Omni-digital banking customers prefer?
- How frequently do Omni-digital banking customers use digital banking services?
- What factors influence the behavioral intentions of Omni-digital banking customers?
- How do behavioral intentions affect the engagement of Omni-digital banking customers?

5.5 Objectives

- To determine the preferences of Omni-digital banking customers regarding digital banking features.
- To analyze the usage patterns and frequency of different payment methods by Omni-digital banking customers.
- To examine the relationship between behavioral intentions and engagement behavior of Omni-digital banking customers.

5.6 Research Hypotheses

- **H1**: Demographic variables (such as age, income, employment, and education) significantly influence the preferences and behaviors of Omni-digital banking customers.
  - **a) H1A**: Age significantly influences the preferences and behaviors of Omni-digital banking customers.
  - **b) H1B**: Income significantly influences the preferences and behaviors of Omni-digital banking customers.
  - **c) H1C**: Employment status significantly influences the preferences and behaviors of Omni-digital banking customers.
  - **d) H1D**: Education level significantly influences the preferences and behaviors of Omni-digital banking customers.
- **H2**: Performance expectancy significantly impacts the behavioral intentions of Omni-digital banking customers.
- **H3**: Effort expectancy significantly affects the behavioral intentions of Omni-digital banking customers.
- **H4**: Social influence significantly affects the behavioral intentions of Omni-digital banking customers.
- **H5**: Behavioral intention significantly influences the engagement behavior of Omni-digital banking customers.

5.7 Study Region and Sample Size

The study is based on Omni-digital banking customers in Chennai City, with a sample size of 280 respondents. Chennai, a significant hub for digital banking and transactions, is home to a range of public and private sector banks that facilitate the rapid adoption of digital banking services. The sample was selected using purposive sampling, focusing on individuals who exclusively use digital banking services. Of the 300 questionnaires distributed, 280 usable responses were received, yielding a response rate of 93.33%.

5.8 DATA ANALYSIS AND INTERPRETATION

Table 5.1: Weighted Average Score of the Statements of Influencing Variables

a. Performance Expectancy

Statement	Weighted Average Score (WAS)
Digital banking provides convenience.	244.4
Digital banking transactions are quicker than traditional banking.	223.9

Statement	Weighted Average Score (WAS)
Using digital banking boosts my productivity.	229.6
Digital banking helps me achieve my goals more easily.	239.0
Digital banking is highly advantageous.	256.8
Overall Average	238.7

b. Effort Expectancy

Statement	Weighted Average Score (WAS)
Learning how to use digital banking services is simple.	263.8
Digital banking services are easy to understand.	229.9
I find it easy to become proficient with digital banking.	241.7
I can easily complete my digital banking transactions.	238.3
Operating digital banking services is straightforward.	231.5
Overall Average	241.0

c. Social Influence

Statement	Weighted Average Score (WAS)
My peers influence my use of digital banking services.	225.8
My friends and family significantly affect my use of digital banking.	205.7
Influential figures in my life shape my digital banking usage.	217.6
The social group I belong to impacts my decision to use digital banking services.	213.4
Using digital banking is a sign of my social standing.	233.8
Overall Average	219.2

d. Facilitating Condition

Statement	Weighted Average Score (WAS)
I have the necessary resources to use digital banking.	247.4
I possess the required knowledge to use digital banking.	255.0
Digital banking works well with other technologies I already use.	239.8
I can easily seek assistance when facing difficulties with digital banking.	237.5
Internet access is readily available for using digital banking services.	236.8
I have the necessary devices such as smartphones or laptops to perform digital banking.	242.3
Overall Average	242.3

e. Behavioral Intention

Statement	Weighted Average Score (WAS)
I plan to use digital banking services more frequently in the future.	289.6
The number and types of my digital banking transactions will grow in the future.	296.2
I will add digital banking platforms to my bookmarks or favorites.	281.0

Statement	Weighted Average Score (WAS)
I encourage others to use digital banking services.	293.6
I teach others how to use digital banking services.	289.6
For non-financial tasks such as raising complaints or seeking help, I would still prefer digital banking platforms.	282.6
Overall Average	288.7

Performance Expectancy: The statement "Digital banking usage is highly beneficial" (WAS: 256.8) recorded the highest score, indicating that users find digital banking highly beneficial, particularly in terms of rewards and cashback. In contrast, the statement "Digital banking transactions are faster than traditional banking" had the lowest score (WAS: 223.9), suggesting that speed is less of a priority for users.

Effort Expectancy: "Learning digital banking operations is easy" achieved the highest score (WAS: 263.8), highlighting that users feel comfortable with digital banking. However, "Digital banking interactions are clear and understandable" received the lowest score (WAS: 229.9), implying that clarity may still be a concern for some users.

Social Influence: The statement "Using digital banking services is a mark of my social status" (WAS: 233.8) scored the highest, showing that social influence plays a role in users' decisions. Conversely, "My family and friends definitely influence the usage of digital banking services" recorded the lowest score (WAS: 205.7), indicating less influence from close personal circles.

Facilitating Conditions: "I have the required knowledge to use digital banking services" received the highest score (WAS: 255), suggesting that users feel confident in their abilities to use digital banking. The lowest score (WAS: 236.8) was given to "There is adequate availability and access to the internet to use digital banking services," pointing to occasional concerns regarding internet accessibility.

Behavioral Intention: "The volume and variety of my digital banking transactions will increase in the coming days" had the highest score (WAS: 296.2), indicating strong intentions to increase usage. On the other hand, "Digital banking platforms will feature in my bookmarks and favourite links" had the lowest score (WAS: 282.6), suggesting that while users plan to use digital banking more frequently, they may not necessarily prioritize it in their digital habits.

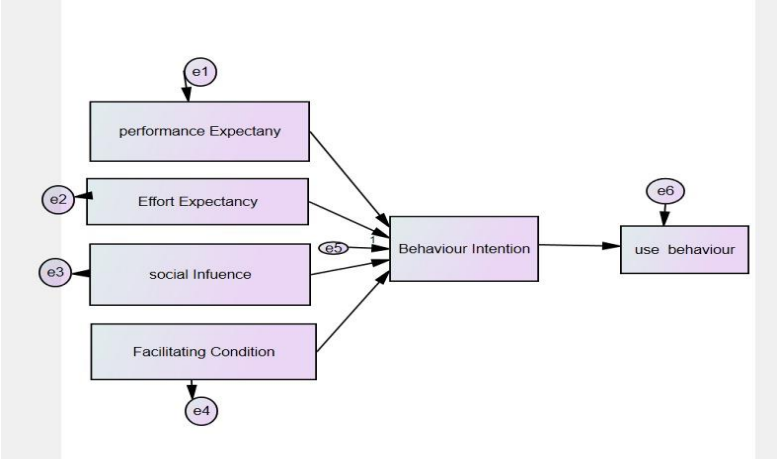
Table 5.2: Measurement Model

Variables	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Performance Expectancy	0.872	0.746	0.571
Social Influence	0.828	0.733	0.562
Behavioural Intention	0.832	0.878	0.564
Effort Expectancy	0.813	0.728	0.548
Facilitating Condition	0.821	0.715	0.517

DISCUSSION OF RESULTS

Table 5.2 outlines the measurement model, which focuses on five key variables: Performance Expectancy, Social Influence, Behavioral Intention, Effort Expectancy, and Facilitating Condition.

a. **Cronbach's Alpha:** All variables exceed the threshold value of 0.70, indicating good internal consistency. Performance Expectancy showed the highest Cronbach's Alpha (0.872), while Effort Expectancy showed the lowest (0.813).
b. **Composite Reliability (CR):** The reliability values for the variables range from 0.715 (Facilitating Condition) to 0.878 (Behavioral Intention). Behavioral Intention has the highest reliability, while Facilitating Condition has the lowest.
c. **Average Variance Extracted (AVE):** All variables exhibit convergent validity, with AVE values exceeding the threshold of 0.50. The AVE values range from 0.517 for Facilitating Condition to 0.571 for Performance Expectancy.



Hypotheses Results:

The following table presents the results of the structural model evaluation based on the hypotheses tested:

Table 5.3: Structural Model Evaluation

Hypothesis	t-Statistic	p-Value	Result
Performance Expectancy → Behavioral Intention	2.603	0.009	Supported
Effort Expectancy → Behavioral Intention	2.806	0.005	Supported
Social Influence → Behavioral Intention	0.996	0.319	Not Supported
Facilitating Condition → Behavioral Intention	1.982	0.048	Supported
Behavioral Intention → Use Behavior	43.225	0.000	Supported

Interpretation of Results:

1. **Performance Expectancy → Behavioral Intention**: The hypothesis that Performance Expectancy significantly impacts Behavioral Intention is supported. The t-statistic value of 2.603 and a p-value of 0.009 ($p < 0.05$) indicate a statistically significant relationship between performance expectancy and customers' behavioral intentions toward using digital banking services.
2. **Effort Expectancy → Behavioral Intention**: The hypothesis that Effort Expectancy significantly impacts Behavioral Intention is supported. The t-statistic value is 2.806, and the p-value is 0.005 ($p < 0.05$), demonstrating that the ease of use of digital banking platforms has a strong influence on customer behavioral intentions.

3. **Social Influence → Behavioral Intention**: The hypothesis that Social Influence significantly impacts Behavioral Intention is not supported. The t-statistic value of 0.996 and a p-value of 0.319 ($p > 0.05$) suggest that social influence does not significantly impact the intention to adopt digital banking services in this context.
4. **Facilitating Condition → Behavioral Intention**: The hypothesis that Facilitating Condition significantly impacts Behavioral Intention is supported. With a t-statistic value of 1.982 and a p-value of 0.048 ($p < 0.05$), it is evident that the availability of necessary resources and infrastructure positively affects users' intentions to engage with digital banking.
5. **Behavioral Intention → Use Behavior**: The hypothesis that Behavioral Intention significantly impacts Use Behavior is supported. The t-statistic value of 43.225 and a p-value of 0.000 ($p < 0.05$) strongly support the conclusion that customers' intentions to use digital banking services are highly correlated with their actual usage behavior

Practical Implications and Recommendations:

Based on the results of the Structural Equation Modeling (SEM) analysis, the following suggestions can enhance the adoption and engagement of Omni-digital banking customers:

a. **Enhancing Trust and Security:** Implement advanced security measures such as blockchain technology to ensure transaction integrity and data security. Transparently communicate data protection policies and highlight industry certifications to build trust and credibility.
b. **Streamlining the User Experience:** Offer clear instructions, tooltips, and tutorials within the platform to help users navigate efficiently. Optimize transaction processing speed and backend operations to reduce delays and frustration. Simplify platform navigation, reduce clutter, and ensure essential features are easily accessible to improve user satisfaction.
c. **Personalization and Engagement:** Allow users to customize their digital banking experience (e.g., dashboards, notification settings) based on personal preferences. Incorporate interactive features such as gamification elements or loyalty reward schemes to enhance engagement.
d. **Omni-Channel Integration:** Ensure seamless integration across mobile apps, websites, and desktop platforms. Allow users to switch between channels without losing progress, ensuring a consistent and uninterrupted experience.
e. **Inclusion and Accessibility:** Ensure digital banking platforms are accessible to all users, including those with disabilities. Provide multilingual support and compatibility with assistive technologies to accommodate diverse demographics.
f. **Monitoring and Continuous Improvement:** Continuously monitor user engagement metrics such as login frequency, session duration, and feature usage patterns. Use data-driven insights to identify areas for improvement and optimize the platform to enhance user engagement and satisfaction.

6. GENERAL SUGGESTION:

- **Invest in Technology**: Banks should adopt advanced technologies and partner with fintech companies to stay competitive.
- **Simplify User Experience**: Make digital banking platforms easy to use by reducing steps and improving navigation.
- **Enhance Accessibility**: Ensure compatibility across devices and provide digital education for customers.
- **Personalise Services**: Offer customised dashboards, notifications, and rewards to improve user engagement.
- **Strengthen Security**: Implement advanced security features and communicate data protection clearly to build trust.
- **Ensure Seamless Integration**: Provide smooth, consistent services across all digital platforms and devices.

7. **FINDINGS:**

a. Demographics: Most respondents were male (54%), and the dominant age groups were 31-40 years (26%) and 41-50 years (25%).

b. Income and Bank Preference: Respondents earning less than Rs. 40,000 primarily held accounts in public sector banks, whereas higher-income groups (above Rs. 40,000) preferred private sector banks.
c. Digital Banking Device Usage: A majority of respondents used only smart phones for banking activities, while a smaller group (13.8%) used both smart phones and laptops.
d. ATM Usage: Most respondents liked ATMs for features like cash withdrawals and mini statements but disliked them due to machine faults or cash unavailability.
e. Mobile and Internet Banking: Respondents appreciated mobile and internet banking for instant transactions and time-saving features but disliked server issues.
f. Payment Preferences: A significant majority of respondents used QR code scanning and mobile numbers for payments daily, while UPI IDs and account transfers were used less frequently.
g. Behavioral Intention: The statement *"The volume and variety of my digital banking transactions will increase in the coming days"* had the highest score (WAS: 296.2).
h. Performance Expectancy: Respondents agreed that *"Digital banking usage is highly beneficial"* (WAS: 256.8), showing a positive outlook on its usefulness.
i. Design Aesthetics: The user interface's appeal in digital banking platforms received the highest score (WAS: 292.9) under design aesthetics.

7.1 Theoretical Implications of the Study

This study contributes significantly to the existing knowledge on digital banking and customer engagement, specifically using the UTAUT model as a foundation. While UTAUT primarily focuses on use behavior, this research extends the understanding of engagement behavior in the context of Omni-digital banking.

a. **Performance Expectancy**: How well digital banking meets customer needs.
b. **Effort Expectancy**: Ease of use and accessibility of banking technology.
c. **Social Influence**: The role of peers, family, and societal expectations.
d. **Facilitating Conditions**: Infrastructure and support systems that enable adoption.

7.2 Managerial Implications of the Study

a. **Awareness Creation**: Many customers are unaware of the full range of digital banking services. Banks can use targeted marketing and education programs to address this.
b. **Understanding Customer Preferences**: Banks can identify favored and disliked services, enabling them to prioritize areas that improve customer satisfaction and reduce pain points.
c. **Competitive Advantage**: Insights from the study can help banks develop strategies to attract and retain customers by offering personalized, efficient, and engaging services.
d. **Service Improvement**: Banks can refine digital services based on socio-economic diversity to ensure better usability and accessibility for all customers.
e. **Addressing Under banked Populations**: Enhancing awareness among under banked customers about financial and non-financial products can encourage broader service adoption.

7.3 Limitations and Scope for Future Research

a. **Customer Reluctance**: Some respondents were hesitant to share financial information or participate due to privacy concerns and time constraints.
b. **Geographical Focus**: The research focuses solely on Omni-digital banking customers in Tamil Nadu. Future research can explore other regions for broader applicability.
c. **Fintech Influence**: The growing role of Fintech partnerships in banking was not extensively addressed. Future research can analyze the integration of Fintech solutions in enhancing customer engagement.
d. **Theoretical Expansion**: While this study primarily used the UTAUT model, incorporating other frameworks could provide a more comprehensive understanding of engagement

behavior. By addressing these limitations, future research can further deepen the understanding of digital banking engagement and technological adoption.

8. CONCLUSION

This study provides insights into the factors that influence customer engagement in Omni-digital banking in Chennai City. Using the UTAUT model, the research found that customers value ease of use, technology performance, and security in digital banking. Additionally, habit, trust, and awareness of services play an important role in shaping customer behavior. The findings suggest that banks should focus on improving digital platforms to enhance customer satisfaction, increase awareness of services, and address customer concerns. With a sample size of 280 from Chennai, the study opens opportunities for further research, including exploring Fintech integration and expanding the analysis to other regions. This research helps improve the understanding of customer engagement in digital banking and offers practical insights for banks to stay competitive in the digital age.

REFERENCES:

Aniqoh, N. A. F. A., Nihayah, A. Z., & Amalia, F. (2022). The Role of Digital Banking Industry Towards Consumer Behavior During The Covid 19. *Journal of Digital Marketing and Halal Industry*, *4*(2), 75–88. https://doi.org/10.21580/jdmhi.2022.4.2.13378

Baabdullah, A. M., Alalwan, A. A., Rana, N. P., Kizgin, H., & Patil, P. (2019). Consumer use of mobile banking (M-Banking) in Saudi Arabia: Towards an integrated model. *International Journal of Information Management*, *44*, 38–52. https://doi.org/10.1016/j.ijinfomgt.2018.09.002

Begum, M. F. (2018). An Overview of Digital Financial Services in India: Concept, Initiatives and Advantages. *Asian Journal of Management*, *9*, 1139. https://doi.org/10.5958/2321-5763.2018.00183.x

Bhattacharjee, D. I., Srivastava, D. N., Mishra, P. A., Adhav, D. S., & Singh, M. N. (2024). The Rise Of Fintech: Disrupting Traditional Financial Services. *Educational Administration: Theory and Practice*, *30*(4), 89–97. https://doi.org/10.53555/kuey.v30i4.1408

Deshwal, P. (n.d.). A STUDY OF MOBILE BANKING IN INDIA. *International Journal of Advanced Research*.

Digital Payment In India: Meaning & Types of Digital Payments. (n.d.). Https://Razorpay.Com/Learn/Digital-Payments-India-Definition-Methods-Importance/.

Efma & Backbase present. (n.d.).

Eren, B. A. (2024). QR code m-payment from a customer experience perspective. *Journal of Financial Services Marketing*, *29*(1), 106–121. https://doi.org/10.1057/s41264-022-00186-5

George, A. S., George, A. S. H., Baskar, T., & Martin, A. S. G. (2023). *An Overview of India ' s Unified Payments Interface (UPI): Benefits , Challenges , and Opportunities Partners Universal International Research Journal (PUIRJ)*. *March*, 16–23. https://doi.org/10.5281/zenodo.7723154

Gupta, A. (n.d.). *(PDF) Rise and Evolution of Mobile Wallets in India*. Https://Www.Researchgate.Net/Publication/334604743_Rise_and_Evolution_of_Mobile_Wallets_in_India.

Hakizimana, S., Charity Wairimu, M.-M., & Muathe, S. (2023). Digital Banking Transformation and Performance:Where Do We Stand? under a Creative Commons Attribution-Non-Commercial No-Derivatives 4.0. *International Journal of Management Research and Emerging Sciences*, *13*(01), 179–196.

Jesus, M. G. de. (2021). *The Digital Transformation of the Banking Industry: Case of Caixa Geral de Depósitos*. *July*, 1–10. https://search.proquest.com/openview/11ce65b78981d47e569f962119de968c/1?pq-origsite=gscholar&cbl=2026366&diss=y%0Ahttps://repositorio.iscte-iul.pt/bitstream/10071/24025/1/master_maria_garcia_jesus.pdf

Kadim, A., & Sunardi, N. (2021). Financial Management System (QRIS) based on UTAUT Model Approach in Jabodetabek. *International Journal of Artificial Intelligence Research*, *6*.

https://doi.org/10.29099/ijair.v6i1.282

Kaur, S. J., & Ali, L. (2021). Understanding bank employees' perception towards technology enabled banking: a developing country perspective. *Journal of Financial Services Marketing*, *26*(3), 129–143. https://doi.org/10.1057/S41264-021-00100-5

Kumari, L., & Suresh Kumar, B. (2018). Role of Information Technology in Banking Sector: A Review. *International Journal of Research in Social Sciences*, *8*.

Melnychenko, S., Volosovych, S., & Baraniuk, Y. (2020). DOMINANT IDEAS OF FINANCIAL TECHNOLOGIES IN DIGITAL BANKING. *Baltic Journal of Economic Studies*, *6*(1), 92. https://doi.org/10.30525/2256-0742/2020-6-1-92-99

Monis, E., & Pai, R. (2023). Neo Banks: A Paradigm Shift in Banking. *International Journal of Case Studies in Business, IT, and Education*, *7*(2), 318–332. https://doi.org/10.47992/ijcsbe.2581.6942.0275

Pratama, R. R. D., & Renny, R. (2022). The Role Of Behavioral Intentions To Use Mobile Banking: Application Of The UTAUT2 Method With Security, Trust And Risk Factors. *Dinasti International Journal*, *3*(4), 728–741.

Raimee, N., Maheswaran, L., Appannan, J. S., & Radzi, N. M. (2021). *Adoption of Digital Wallet: Influencing Factors among Undergraduates in Malaysia*. Https://Myjms.Mohe.Gov.My/Index.Php/Ijbtm/Article/View/14017.

Rajeswari, P., & Vijai, C. (2021). Fintech industry in India: The revolutionized finance sector. *European Journal of Molecular & Clinical Medicin*, *8*(11), 4300–4306. https://www.investindia.gov.in

Ratan Vatsa, V. (2020). Growth of Digital Payments and the emergence of FinTech in India. *Paripex - Indian Journal F Research*, *9*(5), 1–3.

Shabu, K., & Ramankutty, V. (2022). Neobanking in India: Opportunities and Challenges from Customer Perspective. *SSRN Electronic Journal*, *January 2022*. https://doi.org/10.2139/ssrn.4037656

Shaikh, I. M., & Amin, H. (2024). Influence of innovation diffusion factors on non-users' adoption of digital banking services in the banking 4.0 era. *Information Discovery and Delivery*. https://doi.org/10.1108/IDD-05-2023-0044

Sukis Warningsih, N. M. (2021). Determining Factors of Digital Wallet Usage. *Jurnal Manajemen*, *25*, 271. https://doi.org/10.24912/jm.v25i2.740

Tandon, M. N. R. and P. J. K. (2022). *A Study On Drivers Influencing The Adoption Of Mobile Wallets For E-Payments Among Indian Users*. Https://Journalppw.Com/Index.Php/Jpsp/Article/View/13092.

View of A Study on Customers' Perception towards Digital Payment System with Special Reference to Coimbatore City. (n.d.). Http://Annalsofrscb.Ro/Index.Php/Journal/Article/View/1340/1130.

Virdi, A. S., & Mer, A. (2023). *Fintech and Banking: An Indian Perspective* (pp. 261–281). https://doi.org/10.1007/978-3-031-29031-2_11