

Digital banking's effect on the banking industry & system transformation

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Abstract

Purpose: This study examines how digital banking has affected Bangladesh's banking industry by emphasizing its ramifications, difficulties, and revolutionary influences.

Research Methodology: With 200 participants and secondary sources, this study employs a mixed-methods approach and concludes that digital banking improves financial inclusion, convenience, and security. However, obstacles to complete adoption include societal problems, legislative restrictions, and inadequate infrastructure. While inequalities in digital literacy and geographic access continue to be major concerns, security, accessibility, and time efficiency are also important contributing variables.

Results: Although the results highlight the potential of digital banking to modernize the banking sector and promote economic growth, their wider application is limited by factors, including their geographical concentration and dependence on self-reported data.

Conclusions: Bangladesh has enormous potential for equitable growth and financial innovation compared with digital banking. Nevertheless, for widespread adoption, infrastructure deficiencies, digital illiteracy, and security issues must be addressed.

Limitations: This study's limitations include its dependence on self-reported data, regional focus, and inadequate technology infrastructure that affects the uptake of digital banking.

Contribution: This study advances our knowledge of how digital banking is changing conventional banking institutions and provides practical advice to industry executives and legislators on how to remove obstacles and create a more robust and inclusive financial system.

Novelty: This study emphasizes financial inclusion, technological obstacles, and specific recommendations for sustainable growth and innovation, highlighting the revolutionary influence of digital banking on Bangladesh's banking industry.

Keywords: Agent Banking, Digital Banking, Evolution, MFS, Mobile Banking

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1. Introduction

The digital revolution caused the banking sector to swiftly change and diversify its business processes. Businesses, policymakers, and academics are all paying close attention to the topic of digital transformation in commercial banks' business operations. The world of banking is shifting faster than

ever, and digital banking is leading the way to bring about a sea change in the banking industry. The traditional concept of banking has changed and has been replaced by digital banking. Commercial banks are undergoing a digital transformation, which includes developing banking and financial software, digital banking, mobile banking solutions, fintech, etc., to meet customer demand regarding interest rate liberalization, big data, mobile finance, risk management, Internet finance, and customer relationship management (Indriasari, Gaol, & Matsuo, 2019). This change has had a profound impact on how commercial banks function and offer value to their clients. Due to the evolution of the fintech ecosystem, which has brought non-banking service providers into the banking industry, digital business strategy has become the sole business strategy for organizations. The adoption of digitalization, also known as a digital business strategy, represents a paradigm shift away from the grandiosity of a chest-thumping organization and toward a laser-like focus on how to best meet the needs of customers while meeting their expectations. Moreover, another study found that self-service technology and service quality have no direct impact on customer happiness, but reputation and customer value do. Loyalty is strongly influenced by consumer value and satisfaction. Furthermore, customer value is correlated with reputation, and self-service technology is correlated with service quality. All things considered, these elements affect client satisfaction with Islamic e-banking services, which in turn affects consumer loyalty (Tamaruddin, Firdaus, & Endri, 2020).

The banking sector of Bangladesh has implemented various concepts in banking such as mobile banking, agent banking, and online banking (Pervin & Sarker, 2021; Bipul Kumar Sarker, Debobrota Kumar Sarker, Shompa Rani Shaha, Deepongkor Saha, & Saurav Sarker, 2024a). With digital banking, banking is no longer limited to physical branches but has become a virtual bank. Since banks have no obligation to make investments in or construct infrastructure, it is generally acknowledged that digital banking gives consumers in developing regions access to financial services (Ozili, 2018; Bipul Kumar Sarker, Debobrota Kumar Sarker, Shompa Rani Shaha, Deepongkar Saha, & Saurav Sarker, 2024). Customers can now enjoy banking services from the comfort of their homes without having to go to the bank. Consequently, it has become possible to connect banking services to people living in remote areas.

1.1 Why Digital Banking in the Banking Industry?

This image illustrates the key benefits of digital banking in Bangladesh, highlighting its transformative impact on the banking industry. This highlights cost efficiency and scalability, enabling banks to reduce operational expenses and expand their services efficiently. Convenience and accessibility allow customers to perform transactions anytime, anywhere (Anwar, Thongpapanl, & Ashraf, 2021), improving user experience. Data-driven insights empower banks to analyze customer behavior and offer personalized products while enhancing decision-making processes. Digital platforms promote financial inclusion by providing access to underserved populations and bridging gaps in the financial ecosystem. Real-time services ensure instant transactions, updates, and communication, thereby enhancing transparency and speed. Personalized customer experiences further improve satisfaction by tailoring services to individual needs. Finally, increased security and innovation through advanced technologies ensures robust data protection, fraud prevention, and the introduction of cutting-edge solutions. The circular puzzle design signifies the interconnectedness of these benefits, reflecting holistically how digital banking enhances customer satisfaction and operational efficiency.

1.2 Evolution of Digital Banking

The evolution of digital banking has been marked by rapid transformation driven by technological advancements, changing consumer expectations, and the drive for efficiency. Initially, traditional banks embraced technology by introducing ATMs in the 1960s and gradually evolving into early forms of electronic banking in the 1980s and the 1990s, including telephone banking and basic online services. The real shift began with the proliferation of the Internet and mobile devices in the 2000s, enabling more sophisticated and user-friendly platforms for managing financial transactions. The rise of smartphones in the 2010s further accelerated this transition, with mobile banking apps becoming a primary tool for customers to check balances, transfer money, pay bills, and even deposit checks remotely. The era also witnessed the emergence of fintech startups that introduced innovative, fully digital services, challenging traditional banks to adapt quickly by enhancing their own digital offerings.

to remain competitive. Concepts such as open banking and block chain technology have added another layer of transformation by facilitating secure data-sharing and decentralized financial transactions. As a result, the focus shifted from simple transaction processing to personalized, data-driven services and seamless user experiences. Artificial intelligence and machine learning have started to play significant roles in fraud detection, customer service via chatbots, and predictive analytics for financial planning. The COVID-19 pandemic further underscored the importance of digital banking, as consumers shifted en masse to contactless, online, and mobile solutions. Today, digital banking is not just a convenient option, but also a fundamental component of the global financial ecosystem, driving financial inclusion and changing the way banking is perceived, delivered, and consumed.

1.3 Transition of Banking Sector in Bangladesh

1.3.1 Traditional Banking

The term "traditional banking" describes the traditional method of providing financial services through physical bank branches, where customers contact bank employees in person to complete transactions and get services. Account openings, deposits, withdrawals, loans, check processing, and advising support are typical examples of such services (Anjum, 2016). Conventional banking provides services mostly through manual procedures and documentation, with little dependence on technology. It places a strong emphasis on the intimate connections between bankers and clients, and the majority of transactions frequently call for clients' actual presence. This is the major difference between digital banking and traditional banking:

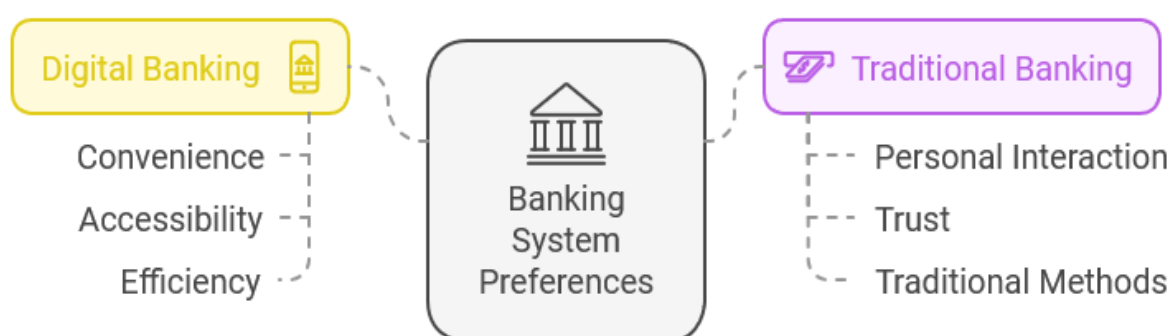


Figure 1. Preference of Banking

1.3.2 Digital Banking

The banking sector has seen a paradigm shift due to the onset of digital transformation, which has changed how traditional banking operations are conducted and how financial institutions engage with customers (Al-Dmour, Asfour, Al-Dmour, & Al-Dmour, 2022). In addition to streamlining internal procedures, this technological advancement has transformed consumer interaction through creative digital platforms (Bueno, Sigahi, & Anholon, 2023; Pio et al., 2024). A digital ecosystem that crosses time zones and geographic barriers has been made possible by rapid breakthroughs in artificial intelligence, data analytics, high-layered datasets (Zaib & Ourabah, 2023), and information technology (Singh, Chen, Singhania, Nanavati, & Gupta, 2022).

Digital banking is the practice of providing banking services without the need for in-person branch visits by utilizing digital platforms and technology (Windasari, Kusumawati, Larasati, & Amelia, 2022) such as websites, mobile applications, and automated systems (Nguyen, 2020; Puspitadewi, 2019). It provides services, including cash transfers, bill payments, loan applications, and account management, allowing users to access, manage, and carry out financial operations online. Convenience, effectiveness, and round-the-clock accessibility are prioritized in this strategy (Diener and Špaček 2021; Fathima 2020; Schuelke-Leech 2018).

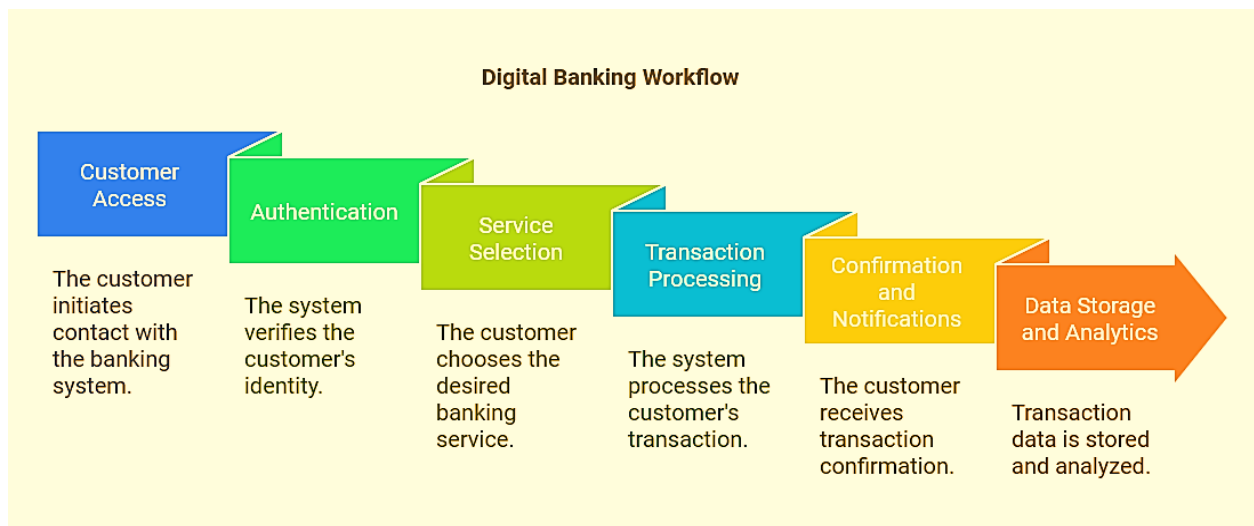


Figure 2. Digital Banking Working Process

1.3.3 Digital Banking Concept in Bangladesh

The digital banking concept in Bangladesh has emerged as a transformative force in the financial sector, aligning with the nation's vision of Digital Bangladesh. With advancements in technology and increasing Internet penetration (Busby, 2017; Vial, 2021), digital banking has become a cornerstone for enhancing financial inclusion and promoting cashless transactions. Services such as mobile banking, internet banking, and agent banking have revolutionized access to financial services (Newton, 2016; Rouf & Babu, 2023; Zhao, Tsai, & Wang, 2019), especially for underserved rural populations. Banks in Bangladesh, such as bKash, Nagad, and Rocket, have played pivotal roles in this transformation by offering innovative services including instant fund transfers, bill payments, and online shopping facilitation. The government's initiatives, such as the implementation of the National Payment Switch, have further streamlined interoperability among banks and financial institutions. Digital banking has also enhanced operational efficiency, reduced transaction costs, and minimized the risks associated with traditional banking. However, challenges such as cyber-security threats, lack of digital literacy, and infrastructural gaps persist. Despite these hurdles, the adoption of fintech solutions (Stoeckli, Dremel, & Uebernickel, 2018; Udin, 2023), coupled with regulatory support, continues to drive the growth of digital banking. This shift has boosted economic development and empowered individuals and businesses, positioning Bangladesh as a growing hub for digital financial services in South Asia.

1.4 Role of Digitalization in Bangladesh Banking

Initially, most banks in Bangladesh were hesitant to implement the changes brought about by technological innovations. However, to keep pace with the needs of customers and times, service providers are working on digital transformation initiatives. Overall, the financial sector is making significant progress towards digitalization. The transition from plastic cards to mobile apps is a significant change in the digital service sector (Krasonikolakis, Tsarbopoulos, & Eng, 2020). There is a clear interest in using mobile apps among the IT-savvy and young populations. Because apps are more convenient and accessible than cards, transactions can be made anytime and anywhere. Online banking, mobile apps, and digital wallets are enabling fast and easy transactions. Bangladesh Bank's Bangla QR Code initiative is particularly praised for its financial inclusion. This will further expand in the coming years, with continued innovation and the introduction of new digital services. One respondent said,

"Traditional banking is time-dependent, you have to go physically for many services. You have to go to the bank many times to take a loan, open a deposit, and obtain a statement. As a result, part of the day is spent on banking. But with digital banking, you can receive specific services without wasting any time at the workplace."

2. Literature Review

Using technology to transform traditional banking operations, improve customer experience, and promote financial inclusion, digital banking has transformed the financial sector by bridging

convenience and innovation. This shift from physical branches to digital-first models highlights how modern banks compete in an increasingly digital economy.

According to Ngamal and Perajaka (2022), their study examines global and Indonesian-specific developments in the banking sector's usage of digital technology. According to this report, the global financial ecosystem is changing quickly as a result of the use of digital technologies or digitalization. This is taking place because of the public's growing desire for digital services. This creates opportunities for the banking sector to grow both its clientele and earnings. However, there are other avenues through which financial institutions may suffer losses because of the growing number of cybercrimes.

According to Maulidya and Afifah (2021), digital transformation is a significant shift in how banks and other financial organizations learn about engaging with and pleasing clients. This goes beyond merely switching from traditional banking to the digital realm. Insight into digital consumer behavior, preferences, likes, and dislikes is the first step in digital transformation. This insight leads to significant organizational changes, such as a shift from a product-centric to a customer-centric approach. In this digital age, banking needs can arise at any time and location. Therefore, banks must be innovative, resilient, safe, optimized, and prepared to satisfy the demands of tech-savvy clients. Customers are prepared to switch banks to one that better suits their demands if banks fail to satisfy them.

The study conducted by Vally and Divya (2018) examines how clients use digital payment options. The major source of data used in this study was collected from 183 people in Hyderabad. The data collected via surveys were examined using chi-square analysis. The use of technology for digital payments has improved the banking sector's performance and brought it closer to achieving the objective of a cashless society according to the poll. Digital banking systems have an enormous potential to change the financial environment. The study found that the low cost and ease of use of digital banking might speed up the adoption of the cashless economy. To enhance customer experience, banks are continuously working to integrate state-of-the-art technology (Golden S, 2017; Paria & Giri, 2018; Shettar & Sheshgiri, 2019). According to Kitsios, Giatsidis, and Kamariotou (2021), banks should adapt their business strategies to manage middle and back-office processes, engage with consumers differently, remain competitive, and be ready for the future. The global use of mobile devices and the Internet has led to the emergence of new banking and financial payment systems. Digital banking has emerged as a state-of-the-art, useful, and efficient way to conduct financial transactions. Mobile wallets, online banking, Internet banking, and electronic banking are only a few of the many forms of digital banking that are currently accessible (Alkhowaiter 2020).

The proliferation of mobile devices is another important driver of digital change. According to Skinner (2014), the average global mobile phone usage rate is 70%, which provides the groundwork for the creation of new mobile applications. This is supported by a study of customers in 22 countries, which found that while the usage of internet banking services has essentially remained the same, the use of mobile banking applications has grown by 19% between 2013 and 2014 (media.bain.com, 2014; Payne, Dahl, & Peltier, 2021). Satisfaction, motivation, trust, self-efficacy, and habits are critical factors in determining the intention to use Internet banking in Pakistan, according to Sharif and Raza (2017). According to the study's findings, the authors emphasized the significance of enhancing users' proficiency with online banking as well as the necessity of updating online banking applications and including a more creative user interface to encourage more users to utilize online banking (Koroleva & Kudryavtseva, 2019). Another study revealed that design and dependability have an impact on both loyalty and satisfaction, whereas privacy and security only have an impact on loyalty. Assistance and customer service had no discernible impact on either result. This study highlights important aspects of service quality that affect e-banking experiences during the pandemic (Indrasari, Nadjmie, & Endri, 2022).

As new digital ecosystems emerge, banks are able to create new business models and realign themselves within the financial value chain, as well as other value chains. Collaborations with other cutting-edge service providers, including investing platforms, and the creation of fintech services are two examples (Udin, 2023; Yazid, Zainol, & Bakar, 2023). The increasing volume of digital data enables banks to

obtain a more comprehensive understanding of their clientele and provide them with new services, such as value chain optimization services tailored to business clients based on rating history.

Despite the rapid growth of the literature on digital banking, no thorough investigation of the impact and ways in which digital banking is altering the face of contemporary banks in Bangladesh has been conducted. The goal of the current study is to close this gap and offer recommendations for the nation's further advancement in digital banking.

2.1 Objective of the Study

1. To present the current scenario and extent of digital banking in Bangladesh.
2. To determine the influence of digital banking in the banking sector of Bangladesh
3. To evaluate the challenges of digital banking on the banking sector of Bangladesh

3. Methodology

3.1 Research Design

This study adopts a mixed-methods approach using qualitative and quantitative techniques. This study employs a descriptive design to explore the impact of digital banking on the banking sector and its role in reshaping modern-day banks. The aim was to gather comprehensive insights through statistical analysis and stakeholder perceptions.

3.2 Study Technique

1. Primary Data Collection

Data are gathered directly from stakeholders, including bank employees, customers, and industry experts, using structured questionnaires and in-depth interviews.

2. Secondary Data Collection

The Bangladesh Bank (BB) Report and industry report papers related to digital banking trends and challenges are reviewed. Statistical data on banking performance post-digitization are also analyzed.

3.3 Sampling Technique

The study targets individuals directly connected to the banking sector, including bank employees (managers, customer service representatives, and IT specialists), bank customers who actively use digital banking platforms, and industry experts such as fin-tech professionals and academic researchers. Using a stratified random sampling method, the study ensures representation across employment roles, customer demographics (age, education, and income), and geographical regions (urban and rural). A total of 200 respondents were selected. Data are collected through a structured questionnaire designed to gather quantitative and qualitative insights, divided into four sections: demographic information (age, gender, education, and occupation), digital banking usage patterns (frequency, types of services used, and comfort with technology), perceived benefits and challenges (effects on convenience, security, and efficiency), and the overall impact on the banking sector (influence on job roles, customer engagement, and operations). The questionnaire included a mix of closed-ended questions, such as Likert scales and multiple-choice options, and open-ended questions for detailed feedback, enabling a comprehensive analysis of digital banking's influence on the banking industry. SPSS version 26.0, and Microsoft Excel were used for data analysis (Bipul Kumar Sarker, Debobrota Kumar Sarker, Shompa Rani Shaha, Deepongkor Saha, & Saurav Sarker, 2024b).

4. Result and discussions

4.1 Present scenario of Digital Banking in Bangladesh

4.1.1 Agent Bank

Table 01 highlights the annual growth in total accounts and transactions in Bangladesh from 2019 to 2024 (projected). The total accounts rose steadily from 43.82 million in 2019 to a projected 227.96 million in 2024, with male accounts consistently outnumbering female and others. Similarly, total transactions (in BDT) increased significantly, from 370.74 billion in 2019 to 1,515.37 billion in 2024. Urban and rural transaction values remain equal each year, reflecting uniform growth across regions.

This upward trend underscores rapid financial inclusion and increased participation in digital and traditional financial systems driven by population growth and economic expansion.

Table 1. Agent Banking Statistics (Last 6 Years)

Year	Total Account				Total Transaction (BDT)		
	Male	Female	Others	Total	Urban	Rural	Total
2024*	111333646	113094766	3529080	227957492	1515367.00	1515367.00	1515367.00
2023	117197619	117830812	3608107	238636538	1779584.92	1779584.92	1779584.92
2022	95289643	93718936	4045031	193053610	1376723.21	1376723.21	1376723.21
2021	72948107	67594546	5144196	145686849	1015090.35	1015090.35	1015090.35
2020	47406932	41319965	2034428	90761325	624040.09	624040.09	624040.09
2019	26657800	16608612	548937	43815349	370744.68	370744.68	370744.68

*Upto October, 2024, Source: Bangladesh Bank (BB)

4.1.2 Internet Bank

Table 02 illustrates the rapid growth of internet banking in Bangladesh from 2019 to 2024 (projected). The number of customers increased significantly, from 26.54 million in 2019 to 91.04 million in 2024, while transaction numbers and amounts also surged. Transaction volumes rose from 14.53 million in 2019 to 121.08 million in 2024, with transaction amounts growing from BDT 658.84 million to BDT 9,217.90 million, reflecting increased digital adoption and financial activity.

Table 2. Internet Banking Statistics (Last 6 Years)

Period	Number of Internet Banking Customers	Internet Banking Transaction	
		Number	Amount in Million (BDT)
2024*	91038255	121084793	9217903.88
2023	88845088	97367776	6321777.687
2022	64976958	66216942	2835672.715
2021	45475259	39141530	1566370.206
2020	34202792	24438452	796379.8526
2019	26537893	14533694	658838.7989

*Upto October, 2024, Source: Bangladesh Bank (BB)

4.1.3 Mobile Banking

The table 03 presents the growth in agent banking in Bangladesh from 2019 to 2024. The total number of agents rose from 12.38 million in 2019 to 18.03 million in 2024, while accounts increased dramatically from 467.93 million to 2.29 billion during the same period. Male accounts consistently dominated, with notable growth in females and other accounts. Total transaction amounts surged from BDT 902.98 billion in 2019 to BDT 2,287.62 billion in 2024, reflecting expanded financial inclusion and agent banking adoption. This steady growth highlights the critical role of mobile banking in bridging financial services across diverse demographic groups and regions.

Table 3. Mobile Banking Statistics (Last 6 Years)

Year	Total Agent	Total Account				Total Transaction Amount (BDT)
		Male	Female	Others	Total	
2024	18031805	1330496817	953180781	3940562	2287618160	2287618160
2023	19415063	1443304821	1046363432	6522400	2496190653	2496190653
2022	17966759	1254548866	904599557	4759509	2163907932	2163907932
2021	16280874	1013075990	795137604	3614317	1811827911	1811827911
2020	14103983	682411162	615801668	2528741	1300741571	1300741571

2019	12382551	467933826	434763479	286805	902984110	902984110
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*Upto October, 2024, Source: Bangladesh Bank (BB)

4.2 Demographic Characteristics

The diagram illustrates a demographic distribution (200 samples) segmented into three main categories: **Job Status**, **Gender**, and **Residence Status**. In terms of job status, 37% were students, 42.5% were businessmen, 12% were service holders, and 8.5% belonged to other occupations. The gender distribution showed 68.5% male and 31.5% female participants. Regarding residence status, 43% were from rural areas, while 57% were from urban areas. The central node, labeled "Demographic Distribution," connects these categories, providing a concise and organized visualization of the data proportions across these demographic segments. This diagram simplifies complex data into an easy-to-understand structure.

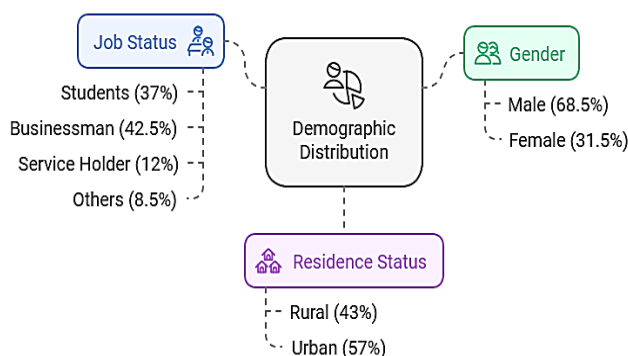


Table 4. Frequency Distribution of Age and Education of the Respondents

Variable	Category	Frequency	%
Age of the Respondent's	18-22	46	23.0%
	23-27	32	16.0%
	28-32	36	18.0%
	33-37	28	14.0%
	38-42	18	9.0%
	43-47	24	12.0%
	Above 48	16	8.0%
Education Level	Under College Level	19	9.5%
	College Level	43	21.5%
	Graduation	36	18.0%
	Post-graduation	102	51.0%

The distribution of responders by age and educational attainment is shown in the table. 23% of respondents were between the ages of 18 and 22, with fewer numbers in later age groups (8% for those over 48). The group with the highest educational attainment had postgraduate degrees (51%), followed by college level (21.5%) and graduation (18%), while the group with the lowest education level was under college level (9.5%). Given that the majority of respondents had postgraduate degrees, this distribution points to a younger, highly educated pool.

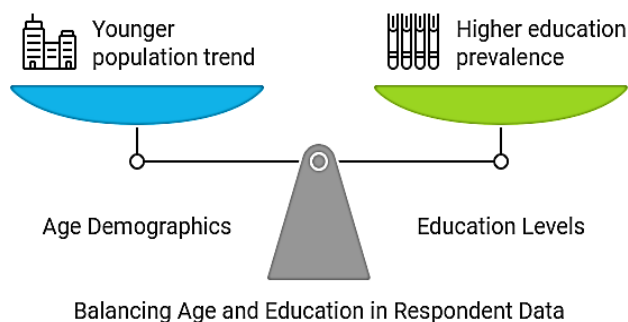


Table 5. Respondents Preference Banking System

Prefer Banking System	Frequency	%
Digital Banking	128	64%
Manual Banking	72	36%
Total	200	100%

There is a noticeable inclination toward digital banking when comparing preferences for banking systems in the table. Out of 200 respondents, 128 (64 %) said they prefer digital banking because of its benefits, which include efficiency, security, and ease. On the other hand, 36% (72 people) preferred manual banking, perhaps as a result of lack of access to digital tools, familiarity, or trust. According to statistics, digital banking is becoming increasingly popular as technology is used, although manual banking is still useful for some consumers. This indicates a shift in banking preferences brought about by improvements in digital infrastructure and differing degrees of technological comfort.

Table 6. Reasons to Prefer Digital Banking

Reasons to Prefer Digital Banking	Frequency	%
Convenience and Accessibility	104	81.25
Time & Cost Savings	87	67.9688
Enhanced Security	125	97.6563
Financial Management Tools	65	50.7813
Faster Customer Support	109	85.1563

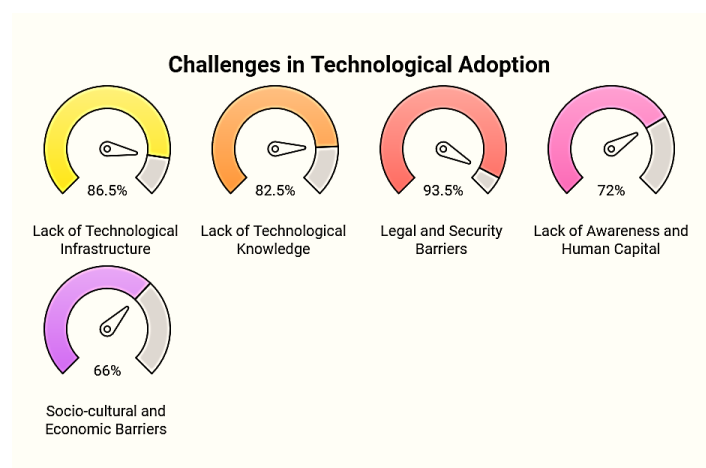
The chart lists the main justifications for favoring digital banking, with 97.66% of respondents citing "Enhanced Security" as the most important consideration. At 81.25%, "Convenience and Accessibility" comes second, highlighting how simple it is to use digital platforms. "Time & Cost Savings" is valued by 67.97% for its usefulness, while "Faster Customer Support," as reported by 85.16%, emphasizes increased service efficiency. Furthermore, 50.78% of respondents said they prefer digital banking because of its "Financial Management Tools," highlighting how useful it is for managing personal finances. These results show that the main factors influencing consumers' increasing choice of digital banking services are security, usability, and effectiveness.

4.3 Challenges of Digital Banking

Table 7. Challenges of Digital Banking in Bangladesh

Challenge	Frequency	%
Lack of Technological Infrastructure	173	86.5
Lack of Technological Knowledge	165	82.5
Legal and Security Barriers	187	93.5
Lack of Awareness and Human Capital	144	72
Socio-cultural and Economic Barriers	132	66

The frequencies and proportions of the main obstacles to the adoption of a specific initiative or system are summarized in table. With 93.5% (187 respondents) citing "Legal and Security Barriers" as the top concern, this category highlights serious issues with data security and compliance. At 86.5% (173 responders), "Lack of Technological Infrastructure" comes in second, emphasizing a significant barrier: insufficient resources. Similarly, 165 respondents, or 82.5%, attributed obstacles to "Lack of Technological Knowledge," implying that growth is impeded by a lack of technical experience. 72% (144 respondents) cited "Lack of Awareness and Human Capital," which identifies inadequate knowledge and worker competencies as obstacles. Finally, 66% (132 respondents) mentioned "Socio-cultural and Economic Barriers," indicating the impact of more general contextual variables. Collectively, these results highlight the complexity of issues, with social, technological, and legal factors significantly influencing implementation attempts.



One respondent said,

"Still, many people are making transactions with trust in mobile banking. This is also a digital banking service. In this case, Bangladesh Bank will have to strictly monitor and control it."

Another respondent said,

Bangladesh Bank should strictly monitor and regulate cyber security in this technology-based banking service sector, create an environment for *domestic* and foreign investment in the development of new technologies and infrastructure, and further simplify digital banking services.

4.4 Service Context

Table 8. Frequency and Mean Distribution of Service Context

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean
Good Customer Service	76	42	20	27	35	2.52
Ensure highest security and privacy	45	51	42	14	48	2.85
Online Platform (Mobile Apps, Website)	103	20	17	42	18	2.26
Real time banking services	117	10	10	54	9	2.14
Access their accounts anytime, anywhere	124	4	21	36	15	2.07

The table displays the mean ratings and degrees of agreement for user comments on a variety of banking aspects. With 76 strongly agreeing, indicating moderate satisfaction, and 35 strongly disagreeing, indicating room for improvement, Good Customer Service scored an average score of 2.52. A mean score of 2.85 for security and privacy indicated a range of perspectives, with 45 strongly agreeing and 48 strongly disagreeing, indicating worries about strong protections. With a mean score of 2.26, the Online Platform was well liked by most people; 103 strongly agreed, while 18 strongly objected, indicating areas that needed technological improvement. With 117 strongly agreeing and only nine strongly disapproving, Real-Time Banking Services had a score of 2.14, indicating broad support. Finally, with a mean score of 2.07, Access Anytime and Anywhere received an overwhelmingly positive response, with 124 respondents strongly agreeing, highlighting its significance. Online platforms and real-time access are generally appreciated, but security and customer support require work.

4.5 Technological Context

Table 9. Frequency and Mean Distribution of Technological Context

Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean
Ease of Use	36	85	9	31	39	2.76
Mobile Banking	88	34	12	8	58	2.57
Personalization	107	12	17	45	19	2.29
Technical Support	124	5	10	57	4	2.06
Technological Advancements	117	20	21	24	18	2.03

This table assesses how users perceive different features of banking systems, including information on mean scores and agreement levels. With 36 strongly agreeing and 39 strongly disapproving, the mean score for Ease of Use was 2.76, reflecting a range of experiences with user-friendly designs. With a mean score of 2.57, mobile banking is somewhat approved; 88 people strongly agree with it, while 58 people strongly dislike it, indicating possible obstacles such as usability or accessibility problems. With 19 strongly opposing and 107 strongly approving, personalization received a score of 2.29, indicating that many people prefer customized services, even in the face of considerable discontent. With 124 highly agreeing and only 4 strongly disapproving, Technical Support's mean score of 2.06 highlights the high level of satisfaction with support services. Finally, with a mean score of 2.03, Technological Advancements shows broad support, with 117 strongly agreeing and 18 strongly disapproving. Users generally express a high preference for technological advancements and technical assistance, although mobile banking and simplicity of use require improvement.

5. Conclusion

5.1 Conclusion

Digital banking has completely transformed the banking industry by improving its accessibility, efficiency, and customer experience. As financial institutions use cloud computing, blockchain technology, and artificial intelligence (AI) to increase security and expedite operations, traditional banking models are rapidly changing. Consumer expectations have changed because of contactless payments, digital wallets, and mobile banking, forcing banks to take a more technologically advanced stance. To promote a healthy digital banking environment, this study highlights the significance of cooperation between banks, technology suppliers, and governments. These collaborations improve cyber security, guarantee regulatory compliance, and advance financial inclusion. Together, stakeholders may create novel solutions that strike a balance between security and convenience, eventually propelling the financial industry's long-term growth.

Bangladesh's banking industry has seen a significant transformation because of digital banking, which has improved accessibility, convenience, and operational effectiveness. Even though consumers are increasingly choosing digital alternatives, some groups still find value in traditional banking. Even with significant advancements in service innovation and financial inclusion, enduring issues, including inadequate technology infrastructure and cyber security, still need to be resolved. This change is a strategic move that improves the banking industry's competitiveness internationally while also supporting Bangladesh's goal of becoming a cashless society.

5.2 Limitation

The study has a number of limitations, even though it provides insightful information on how digital banking is changing Bangladesh. First, using self-reported data raises the possibility of bias since participant replies could not always fairly represent their experiences or actions. The study's geographic focus, which was mostly on metropolitan and a few rural locations, limited the findings' applicability throughout the nation. Furthermore, the study's breadth and usefulness of its conclusions are greatly impacted by issues with the technical infrastructure, such as erratic Internet availability and restricted

access to digital devices. Another limitation of the study is the absence of longitudinal data, which restricts its capacity to evaluate the long-term patterns and effects of digital banking adoption. Furthermore, the study's findings might soon become outdated due to the rapid evolution of digital banking technology and regulatory frameworks. There is still a need for more research because sociocultural elements such as resistance to change and differing degrees of digital literacy were only partially covered. Finally, a larger sample size and more varied participant demographics would improve the comprehensiveness and applicability of the study's mixed-methods approach, even if it is still a strong approach. These restrictions point to the necessity of more studies to fill these gaps and expand on the results.

5.2 Recommendations

Investors must prioritize investments in strong technology infrastructure and cyber-security measures if they hope to maintain the expansion and advantages of digital banking. User adoption can be accelerated by improving digital literacy through focused educational campaigns. Banks should prioritize providing smooth real-time customer assistance and tailoring digital offerings. The development of digital banking will be further facilitated by cooperation with regulatory agencies to simplify compliance and remove sociocultural obstacles, enabling both urban and rural communities to uphold consumer pleasure and confidence. Banks should implement appropriate management strategies to adopt electronic banking, as it has been demonstrated to cut down on needless labor and operating expenses. Additionally, efficiency and profit levels are raised, while paperwork is decreased. Finally, both large and small organizations face a number of technical challenges. Small banks usually rely on low-cost IT providers because they lack the resources and know-how to properly implement IT programs comparable to those employed by major banks. Additionally, they lack qualified IT staff. Budgets for small commercial banks must be balanced to implement technological applications and human resources that are capable of data management, security, and software development.

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