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Bangladesh's Banking Revolution: Unveiling the Potential and Challenges of Digital Banks

Mohammad Robaitur Rahat[1*], Fatema Tuz Zuhora[2], and Chotan Chowdhury[3]

[1]Department of Business Administration in Finance and Banking, Bangladesh University of Professionals, Dhaka, Bangladesh. Email: robaiturr@gmail.com

[2]Department of Business Administration, Bangladesh Army International University of Science and Technology (BAIUST), Cumilla, Bangladesh. Email: ftztarin.dba@baiust.ac.bd

[3]Independent Researcher, Cumilla. Bangladesh. Email: chowdhury.chotan42@gmail.com

[*]Corresponding Author

Abstract: The drive towards financial inclusion, coupled with the competitive pressures from Fintech, is accelerating the banking sector towards increased levels of digitalization, particularly in developing nations. This research explores the potentials and challenges faced by digital banks in Bangladesh. This study employed qualitative interviews with purposively selected fifteen banking and IT professionals from the banking and Fintech sectors of Bangladesh. Our analysis, conducted by using Atlas.ti 2023 software, indicates that digital banks in Bangladesh can exploit the widespread mobile penetration rate to offer user-friendly mobile applications, agent networks, and QR code-based payment methods to enhance financial accessibility. However, challenges such as limited customer interaction, the necessity of technological expertise, and concerns regarding data security exist. Our study also suggests using AI-powered chatbots, tailored communication, and targeted marketing strategies could mitigate the challenges of limited customer engagement, while substantial investments in technological infrastructure and stringent security protocols are essential to safeguard customer privacy and trust.

Keywords: digital bank, neo bank, banking sector, revolution, Bangladesh

1. Introduction

Digital revolution in the banking industry has made banking services available 24/7 to customers. The emergence of digital banking activities is a quick response to the radical transformation in the field of technology. The financial landscape has made a significant digital shift within a short period. Evidence supports that the Fintech industry plays an important role in reshaping financial services worldwide (Monkiewicz, 2023). Digital banks are successful entities around the world, and their success is aided by technology. India, Indonesia, the Philippines, Thailand, and Vietnam have successfully reached out to the unbanked community through digital banks. The southeast region has been experiencing some of the highest revenues in the world. The region has witnessed terrible growth in its digital economy despite challenges in the COVID-19 pandemic (Li, 2022).

The digital transformation has significantly changed people's way of living and work, especially in Bangladesh. The region has seen considerable transformation in the banking industry. Digital banks have become a crucial phenomenon for providing uninterrupted services to customers. The growing number of internet users in Bangladesh has expanded opportunities for the banking industry to provide services to untapped markets through digital banks (Sijan et al., 2022). Digital banks, also called non-branch banking, are a prominent factor in bridging the gap and facilitating banking services to the significant unbanked population of the country. While Internet banking is popular among urban people, its acceptance in rural areas needs to be higher (Tran et al., 2023). Now it is the need of the hour to outline the pros and cons of adopting digital banks in Bangladesh.

The country's increasing digital competitiveness demands the rise of digital banking in Bangladesh (Bhuyan et al., 2022). The COVID-19 pandemic accelerated the rising tendency of digital banking usage (Marcu, 2021). The noteworthy developments in the e-banking sector to adapt to technological advances also create the necessity for digital banking (Indriasari et al., 2022). Bangladesh government's digitized transformed banking models and practices have made banking activities efficient, quick, and more accessible, and both customers and banking institutions are getting the benefits (Chowdhury et al., 2023). Moreover, the revolution in the technological sector has created unique opportunities for the country to champion digitization, and it has made it urgent to embrace digital banking to achieve economic advancement and societal transformation (Bhuyan et al., 2022). Therefore, digital banking is mandatory in Bangladesh to increase competitiveness, change customer behavior, and contribute to the country's overall digital process.

As a South Asian country, Bangladesh, committed to digitalization, has adopted policies to introduce digital banks in the financial sector. There is no doubt that Bangladesh has made a welcome move, as financial institutions need to keep abreast of technological developments worldwide. Bangladesh has adopted new policies to introduce digital banks in the financial sector, however, the gender gap in financial inclusion has been noticed here. The World Bank estimates 30 million people in Bangladesh are unbanked, and 65 percent of women in Bangladesh do not have bank accounts. Licensing digital banks can be a catalyst to reduce this gender gap and turn the nation to a cashless society (Chowdhury et al., 2023). Starting with the preliminary set of eight digital banking licenses approved in October 2023 in principle by Bangladesh Bank, Bangladesh is ready to widen its digital banking wings to embrace its future digitization. Bangladesh aims to hold a minimum of 75% of domestic financial transactions digitally by 2027 as part of its nationwide Smart Bangladesh Vision 2041. Currently, 61 traditional banks operate in the country, and many offer digital services and applications to their customers. However, the establishment of full-fledged digital banks will be a commendable, promising, and logical step towards fulfilling her Vision 2041 (International Banker, 2023).

Though traditional banks in Bangladesh have focused on products and services, they now adopt multiple means; otherwise, customers will switch to other banks. The demand for financial services has changed due to the digital revolution, which made the industry more customer-centric. With competition, significant opportunities for lower prices, ample choices, better quality, more efficiency, enhanced productivity, innovation, and extra-economic growth and development. To address these issues, this study investigates the potential prospects and challenges of adopting digital banks in Bangladesh.

Although previous research has indicated the widespread popularity of digital banks on a global scale, studies (Anakpo et al., 2023; Goderdzishvili, 2023; Mathew, 2021; Sasea & Sakmaf, 2023; Sebti, 2022; Sulaiman & Muneeza, 2024; Yuspin et al., 2023) have been conducted on the obstacles and opportunities associated with digital banks across various nations. Nevertheless, the concept of a digital bank is still new in Bangladesh. Therefore, we draw our research questions as follows: first, what is digital banks' potential in this revolutionary situation of Bangladesh? Second, what are the challenges and barriers that the digital banks may encounter in Bangladesh? Therefore, this research aims to outline the potentials and challenges for digital banks in Bangladesh. In addition, the specific objectives are, first, to investigate the potentials of digital banks in Bangladesh; and second, to assess the challenges these banks may face in Bangladesh.

The remaining paper is organized as follows: In section 2, the literature review of this study is described. Section 3 demonstrates the data and methodology used for this study, followed by the findings and discussions in section 4. In section 5, the conclusion of this study is described with recommendations.

2. Literature Review

A digital bank is a revolutionary form of banking that offers comprehensive banking services through digital platforms (Indrakusuma & Hidayanto, 2024). The services of digital banks are delivered to the customers in a personalized way through electronic channels which eliminates the need for physical branches other than the head office. Unlike online banks, digital banks provide a complete banking experience through applications tailored to customers' needs and preferences (Utama & Trisnawati, 2024).

2.1 Emergence of Digital Bank

The emergence of digital banks is noticed globally. Issuance of licenses and establishment of regulatory frameworks for digital banks are happening in the Asia Pacific region, such as China, South Korea, Taiwan, Hong Kong, Singapore and Malaysia (Yuspin et al., 2023). The regulatory landscape in advanced nations has strengthened the growth of digital banks by providing them favorable licensing procedures and established frameworks (Lipton et al., 2016). The rise of digital banks directly responds to the increasing use of modern digital technologies. As customers' preferences and expectations shift towards remote and convenient access to banking services through mobile devices, the momentum for digital banks has surged. For traditional retail banks, the transformation into digital banks is not just a choice but a necessity to remain competitive in the market and adapt to the growing power of digital and mobile technologies. The trend of virtualization of banking services and the increasing demand for personalized and convenient banking services have significantly influenced the emergence of digital banks (Sajić et al., 2017).

2.1.1 The Perks of Digital Banking: Why Go Digital?

Digital banks provide an expanded array of services and products that offer heightened convenience, increased efficiency, bolstered security, and diminished reliance on physical visits to traditional banks, thus resulting in time and effort savings for clientele (Nathiya & Priya, 2023; Sajić et al., 2017). The digital banking does support paperless operations, access to services through digital platforms, and the introduction of novel banking institutions tailored for Generation Z, thereby increasing economic transparency and operational efficiency (Jain et al., 2011). This form of banking ensures increased levels of customer satisfaction and is the preferred choice over traditional banking systems such as online banking, point-of-sale terminals, credit/debit cards, and ATMs (Rangaswamy et al., 2023). Digital banks are characterized by the extensive utilization of artificial intelligence, the digitization of products, and the successful substitution of conventional banking practices with innovative, technology-driven and cost-effective banking solutions (Pryazhentseva & Chernysheva, 2022).

2.1.2 The Roadblocks of Expanding Digital Bank

Developed countries face challenges in achieving financial inclusion and operational efficiency through digital banking due to limited scale of digitization of financial services despite technological advancement especially in triggering events such as the global financial crisis and pandemic (Spilbergs, 2023). Barriers to digital banks in developing nations include limited access to financial services, discrepancies between policy and implementation, barriers to achieving digital financial inclusion, hurdles in encouraging the adoption of Central Bank Digital Currencies (CBDCs), and the incorporation of mobile technology for financial inclusion (Anakpo et al., 2023). Various factors contribute to these setbacks, such as national regulations, inadequate infrastructure, limited financial literacy, and resistance to transitioning from conventional banking models, all of which impede financial inclusion efforts (Mathew, 2021). Hardships in regulating digital banks in Indonesia encompass legal inconsistencies arising from obsolete banking legislation that must be better suited for the digital banking landscape, resulting in a legal void necessitating the establishment of fresh regulatory frameworks (Yuspin et al., 2023). The challenges encountered in digital banking encompass upholding public confidence in traditional currencies, adjusting to emerging technological advancements, and implementing digital innovation strategies to effectively address the changing demands of the market (Sebti, 2022).

Digital banks struggle to compete with financial technology firms in terms of financial and digital literacy training requirements and the need to adapt to the rapidly changing digital world (Zuhra & Nasution, 2024). It highlights the challenging need to adapt to new technologies, ensure data security, meet customer needs for fast and reliable transactions and overcome legal problems in the banking industry (Sembekov et al., 2021). To overcome these hurdles, it is crucial to implement practical policies and strategies that advocate for using mobile banking, mobile money services, and agent banking to expand outreach to the population at a minimal cost. Overcoming these barriers necessitates a comprehensive understanding of user requirements, strengthening institutional capabilities, fostering collaborations with private entities, striking a balance between data privacy and regulatory compliance, and ensuring alignment with existing financial frameworks. The employment of innovative digital marketing tactics can serve as a means to bridge gaps and capitalize on opportunities within trending markets like India (Chandrakar et al., 2023).

The concept of a digital bank remains relatively novel in Bangladesh, warranting further examination within this unique setting. Bangladesh's central bank formally established the regulatory framework for establishing digital banks in June 2023. The Bangladesh Bank's plans indicate intentions to grant additional authorizations to digital banks (International Banker, 2023). Nonetheless, the limited research within the Bangladeshi context may hinder comprehensive insights into these emerging financial entities known as neo-banks (Digital Bank). Thus, it becomes necessary to portray the potential benefits and obstacles associated with the inception and functioning of digital banks in Bangladesh.

3. Methodology

3.1 Research Design, Sampling, Data Collection, and Analysis

This is a qualitative research. The purposive sampling techniques were used to select fifteen banking professionals from banks of all generations and IT professionals related to Fintech organizations. The selection of participants was based on their expertise and active involvement in their respective fields, ensuring various ages and socio-economic origins from across Bangladesh. Five of the participants were female. The interview was recorded and a few reverse questions were asked on potential and challenges of digital bank.

We have employed interview method that enables us to thoroughly comprehend the fundamental problems in the research and clarify innovative theoretical features (Adeoye-Olatunde & Olenik, 2021; Edwards & Holland, 2020). Conducting in-depth qualitative interviews allows one to gain deep insights into this subject while reducing the danger of bias and limiting the range of conversation (Edwards & Holland, 2020).

Thus, we conducted interviews adeptly to explore the underlying reasons for establishing digital banks, as well as the potential advantages and obstacles in Bangladesh. We employed the semi-structured interview method to provide flexibility in investigating participants' experiences, views, and opinions concerning the banking sector in Bangladesh. The interview questions were based on the potential benefits presented by recently established digital banks in Bangladesh and the possible problems these banks may encounter (For example, Do you think digital banks offer greater accessibility and convenience? What are the efficiencies and innovations of digital banks? Do digital banks improve customer experience and satisfaction? What are the major challenges of digital banks?). Throughout the process, participants were required to respond to their cognitive abilities and level of expertise in the banking industry. The interviewees were carefully ensured to voluntarily refrain from answering the questions at any given moment. The questions varied from simple to essential. The duration of each interview ranged from 5 to

10 minutes, effectively reducing the time and inconvenience experienced by the respondents. This analysis has focused exclusively on ladies who exhibited a sufficient degree of earnestness and excitement in presenting their comments.

We utilized Atlas.ti 2023, a software designed for qualitative data analysis to examine and interpret the interview transcripts. Before the study, all interview sessions were transcribed to guarantee precision and uniformity in data representation. Next, the transcripts were rigorously analyzed to find recurring themes, patterns, and categories about preferences, challenges, and recommendations regarding banking channels. By employing iterative coding and analysis, we could identify emergent themes and sub-themes from the substance of the interviews. The encoded data were analyzed to derive significant insights, comprehend participant viewpoints, and uncover similarities and disparities among responses.

3.2 Ethical Considerations

The study ensured the confidentiality of participants' identities and personal information. Furthermore, participant identities were excluded from the transcripts to ensure anonymity during the research and reporting. Stringent protocols were implemented to guarantee the safekeeping and management of interview recordings and transcripts following ethical norms and data protection rules.

4. Findings and Discussion

The word cloud in Figure 1 showcases many thoughts that arose from conversations with banking professionals, Fintech specialists, and policymakers regarding the potential and obstacles of digital banks in Bangladesh.

Figure 1
Concept Analysis

The phrases revolve around critical themes such as customer experience, technology, regulation, and infrastructure. Notable terms that have been identified include consumer behavior, marketing, artificial intelligence (AI), cybersecurity, regulatory compliance, data privacy, and user experience (UX). The use of phrases such as "customer experience" and "marketing" indicates a concentration on the acquisition and retention of consumers in digital banking. The terms "risk", "assessment", and "regulation" emphasize the regulatory factors that are involved in the establishment of digital banks. The presence of phrases such as "infrastructure" and "inertia" implies difficulties associated with establishing the digital banking system in Bangladesh. In general, the concept analysis portrays a complex conversation about the possibilities and challenges linked to the expansion of digital banks in Bangladesh.

4.1 Potential of Digital Banks

4.1.1 Enhanced Convenience and Accessibility

The mobile penetration rate in Bangladesh has experienced a significant surge, with more than 90% of the population having cell phone access. Therefore, digital banks can capitalize on the extensive use of mobile devices by implementing a strategy that practices mobile platforms. Mobile applications that are easy to use should include necessary banking features, like checking account balances, transferring funds, and making bill payments. By giving priority to mobile accessibility, digital banks can close the gap between those who have access to digital services and those who do not, and they can even give users in distant areas the ability to take control of their finances. Although urbanization has occurred, rural communities still lack sufficient financial access. However, agent and mobile banking networks serve as mediators, facilitating financial services to remote villages and small towns. Digital banks can cooperate with these agents, expanding their influence outside metropolitan areas.

Moreover, digital banks can efficiently cater to the unbanked and underbanked communities by utilizing established agent networks. QR code-based payments have become increasingly popular in Bangladesh. Digital banks should incorporate QR code solutions into their platforms, allowing consumers to conduct cashless transactions at nearby stores and markets. In addition, digital wallets can function as virtual accounts, enabling users to store money and carry out transactions smoothly and securely. These advancements improve convenience and decrease dependence on tangible currency.

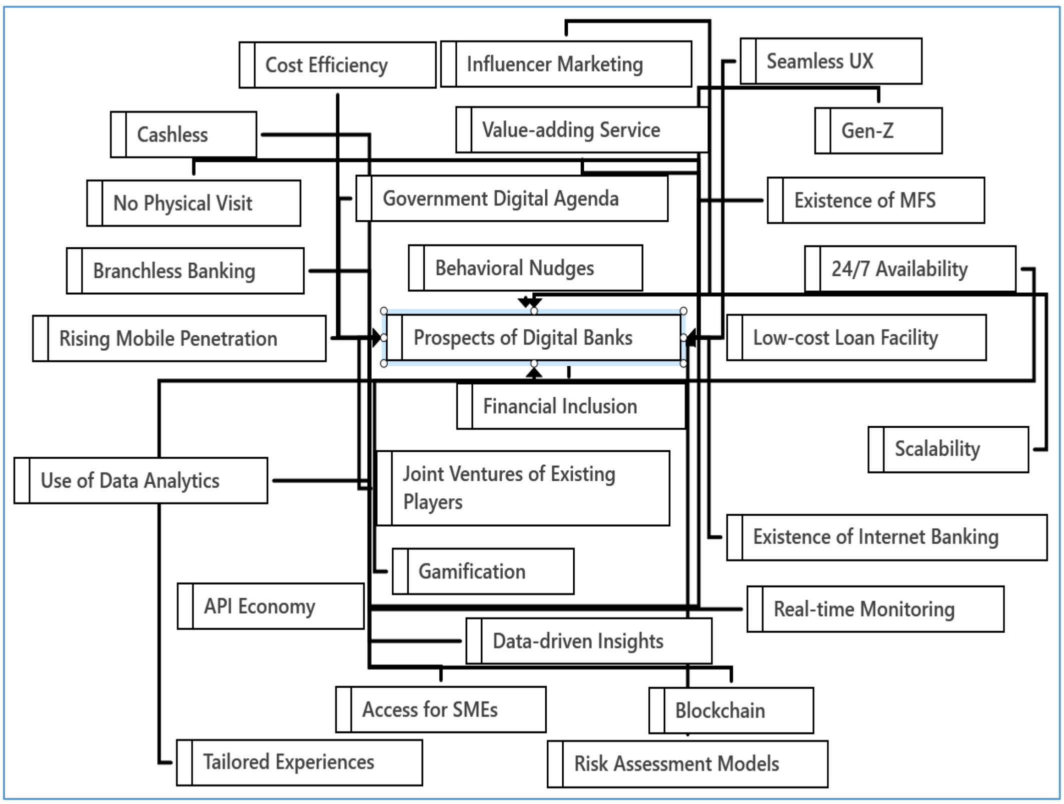
4.1.2 Innovation and Efficiency

The potential of blockchain technology for digital banks is significant. Banks may improve security, transparency, and efficiency by using blockchain technology. Some advantages include unchangeable transaction records, efficient international money transfers, and less likelihood of fraud. Meanwhile, engaging in partnerships with other financial institutions to utilize shared blockchain networks can enhance the efficiency of processes. Digital banks should adopt and integrate the API economy. APIs enable smooth data interchange, allowing for collaboration with financial companies. To expedite loan approvals, one can incorporate credit scoring services.

Additionally, enabling easy online transactions can be achieved. Furthermore, fostering collaborations with third-party suppliers can help in offering new services. Effective customer service is crucial. Chatbots and AI-powered systems can manage regular questions, administer accounts, and troubleshoot. These automated systems provide prompt responses, decrease waiting periods, and improve the overall quality of service.

Figure 2

Network Analysis of Prospects of Digital Banks



4.1.3 Improved Customer Experience

Gaining insight into user behavior is crucial. Digital banks must analyze data to provide tailored suggestions. Customization improves the experience by offering personalized investment suggestions, budgeting advice, and tailored lending possibilities. Behavioural insights have the potential to significantly influence and guide the process of targeted marketing and product creation. An uninterrupted user experience is of utmost importance. Customer satisfaction is enhanced by intuitive interfaces, easily understandable navigation, and fewer clicks. Digital banks need to give priority to UX design, ensuring that users can quickly and smoothly complete activities. Accessibility is improved through the use of simplified language and visual clues. A significant number of Bangladeshis have recently adopted digital banking. Education initiatives are essential. Digital banks can provide material, organize webinars, and cooperate with educational institutions to advance financial literacy. Users who are empowered can make well-informed decisions and interact more successfully with digital services.

4.1.4 Financial Inclusion

Bangladesh's microfinance sector is solid and resilient. Microfinance institutions can partner with digital banks to provide microloans and credit facilities to small enterprises and entrepreneurs. Digitizing these services can significantly boost financial inclusion. Digital banks should proactively focus on reaching the demographic that does not have access to traditional banking services. Efficient account opening procedures, cost-effective services, and language adaptation are crucial. Collaborating with non-governmental organizations (NGOs) and community organizations can help enhance outreach efforts' effectiveness.

Additionally, digital literacy programmes can clarify and simplify the concept of digital banking for individuals using it for the first time. Government policies are crucial. It is imperative for digital banks to communicate actively with legislators to establish a conducive climate. Adopting digital financial services can be expedited through regulatory clarity, well-defined norms, and incentivization. Practical cooperation among regulators, banks, and Fintech participants is essential.

4.2 Challenges of Digital Banks

4.2.1 Security and Data Privacy

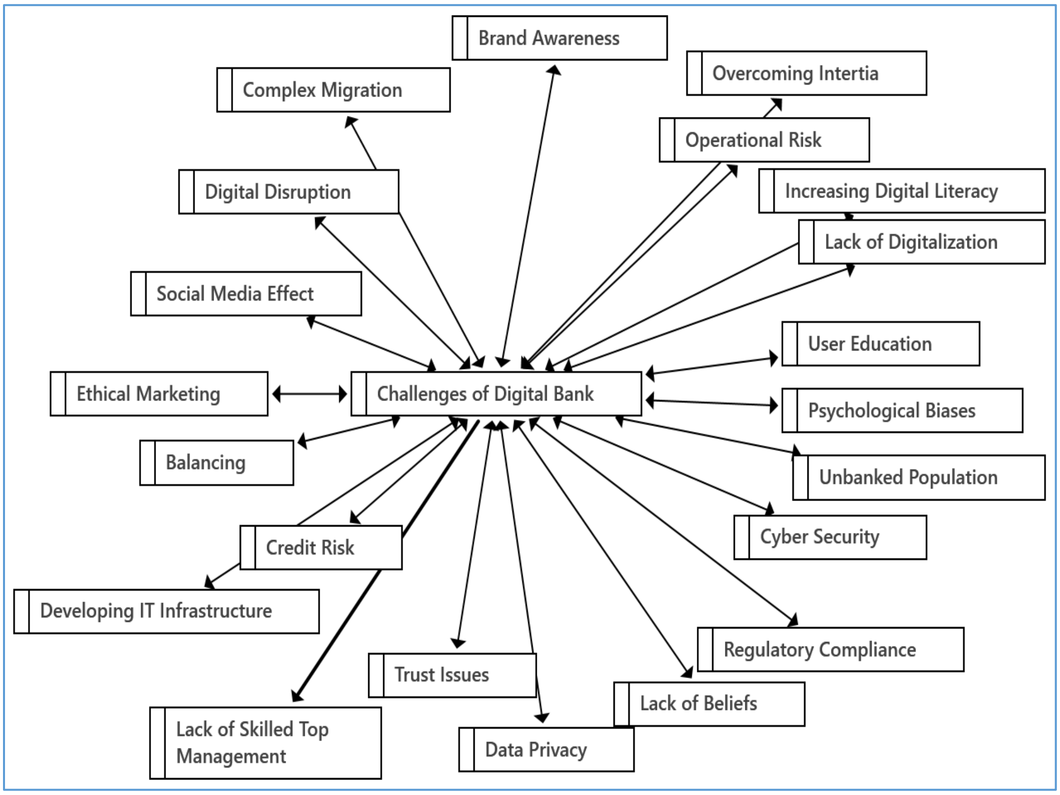
Digital banks are required to protect consumer data against hackers and breaches. Strong security measures, encryption, and frequent audits are necessary. Adhering to data privacy standards is crucial for upholding trust. Implementing robust user authentication protocols is essential for preventing unauthorized access. Security is enhanced by implementing multi-factor authentication, biometrics, and role-based access controls. Consistent security training for employees is essential. It is imperative to encrypt sensitive data both when it is being transmitted and when it is being stored. Anonymization methods safeguard client privacy while enabling data analysis. It is necessary to find the optimal equilibrium between the usefulness of data and the protection of privacy.

4.2.2 Limited Customer Interaction

Digital banks frequently lack the personalized interaction which is usually found in traditional banks. Utilizing AI-powered chatbots, customized emails, and focused marketing strategies can improve client engagement. Consistent communication ensures that clients are well-informed and actively involved. User interfaces should possess an inherent ability to be easily understood and navigated by users. Simplified navigation, explicit directions, and responsive customer service channels facilitate positive interactions. Regular feedback loops enable the enhancement of services by incorporating user requirements. Digital banks can utilize social media channels to engage with customers. Timely responses to inquiries, resolving issues, and disseminating pertinent information foster camaraderie and confidence.

Figure 3

Network Analysis of Challenges of Digital Banks



4.2.3 Financial Service Limitation

Traditional banks typically provide a more comprehensive range of financial goods than digital banks. Diversifying the product portfolio to encompass loans, insurance, investment choices, and specialized services addresses the varied requirements of customers. Collaborating with Fintech startups enables digital banks to provide cutting-edge services. APIs facilitate effortless integration with external sources, expanding the scope of financial services. Small and medium-sized firms (SMEs) encounter distinct financial obstacles. Digital banks can create tailored solutions, such as working capital loans, invoice funding, and tools for managing cash flow.

4.2.4 Technological Dependence

Technology infrastructure is crucial for the operation of digital banks. Uptime, disaster recovery plans, and redundancy measures are implemented to prevent service disruptions. Regular system updates and scalability are essential. Agile IT governance enables digital banks to quickly and effectively adjust to technology advancements. Efficient operations and future readiness are ensured by maintaining a balance between innovation and risk management. Customers need to comprehend digital banking technologies. Enhancing digital literacy can be achieved by providing user-friendly instructions, webinars, and workshops. Closing the technological disparity guarantees seamless implementation.

5. Conclusions and Recommendations

This research gives insight into the transformation and digital evolution within the banking sector. Specifically, the focus of this investigation was directed towards the digital banks and encompassing their future potential and challenges in Bangladesh. The analysis pinpointed critical topics, including customer satisfaction, technological advancements, regulatory frameworks, and infrastructural development within Bangladesh's digital banking realm. The study's primary purpose was to look into the prospects and obstacles that digital banks encounter in Bangladesh, employing qualitative interviews with professionals from the banking and information technology sectors. The methodical qualitative analysis revealed recurring themes, patterns, and classifications related to preferences, obstacles, and suggestions for enhancing banking channels. It is found that there is an excellent opportunity to bring the unbanked population under the umbrella of the banking system through the improved convenience and accessibility offered by the concept of digital banking. There will be huge potential to provide innovative and efficient service by digital banks adopting blockchain technology. Gaining customer insight is crucial for digital banks to capture the market. Finally, forming partnerships with microfinance institutions can open the door to financial inclusion by digital banks. In the case of possible challenges of digital banks, we can conclude that limited customer interaction, need for technological know-how and financial literacy, restricted range of services and lack of data security and customer privacy are found as the key challenges of digital banks in Bangladesh.

Our findings indicate that to address the challenges associated with limited customer engagement in digital banking, it is essential to enhance the utilization of AI-powered chatbots, personalized emails, and targeted marketing strategies. Additionally, the establishment of consistent regulatory frameworks, substantial investments in technological infrastructure, and the implementation of robust security measures for customers are also highly advocated. While the study identified significant barriers and potential benefits of digital banks, it is important to acknowledge certain limitations in the paper, such as reliance on qualitative interviews with a restricted number of participants, which could constrain the insights obtained and potentially overlook diverse perspectives and experiences. Future research could acknowledge this limitation by employing more diversified sampling to have insights from multiple perspectives.

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