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Digital finance and future of banks and financial services

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Abstract

Digital finance is revolutionizing the financial sector in significant ways. Its role in shaping the future of banks and financial services is a topic of widespread interest in the policy and academic literature. This study examines the role of digital finance in shaping the future of banks and financial services. The study shows that digital finance innovations are disrupting banking and the nature of financial services. Financial institutions that will survive in the future must undertake digital transformation to compete for market share in new customer segments and to meet the changing needs and preferences of customers. While nobody knows for sure what the future of banking and financial services will be in the distant future, it is certain that the digital finance revolution would change the face of banking and financial services in the future. Regulation, technology, and geopolitical factors could alter the future of banking and financial services.

Keyword: digital finance, banks, financial services, future.

JEL classification: G21, G28.

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1. Introduction

Digital finance encompasses the technology, applications and systems used to provide banking and financial services over the internet (Ozili, 2018). Digital finance has been increasing since the 2008 global financial crisis, and it has many applications in everyday life. For example, digital finance manifests when we use digital apps to send and receive money, or when we use digital apps to manage the balances in our bank accounts, or when we use digital apps to make an investment or to purchase shares of a company.

Digital finance witnessed significant growth during the COVID-19 pandemic (Agur, Peria and Rochon, 2020). The lockdown restrictions during the pandemic led customers to use available digital channels (e.g., Fintech and online banking channels) to access their bank accounts, make payment, receive payment and to send and receive remittances during the pandemic (Alber and Dabour, 2020). The post-COVID era also witnessed major advancements in digital finance such as embedded finance, cryptocurrency, non-fungible tokens, stable coins and central bank digital currencies (Allen, Gu and Jagtiani, 2022; Ozili, 2022), all of which have emerged to serve customers in the digital finance ecosystem.

Academics and policymakers agree that digital finance offers tangible benefits to society even though it poses some risks that can be mitigated with meaningful regulation (Hu and Zheng, 2016; Pan, Ma and Wang, 2022). There is a lot of discussion about digital finance in the academic literature. Many studies present an overview of digital finance and conclude that the factors motivating the emergence of digital finance innovations are the need to increase payment efficiency, increase financial inclusion, increase efficiency in financial services delivery, reduce cost and the need to use existing digital technologies to achieve the United Nations sustainable development goals (Gomber, Koch and Siering, 2017; Ozili, 2023). Other studies emphasize the ability of digital finance to transform banking, capital markets, trade, regulation, and stimulate economic growth (Zetzsche et al, 2021; Stefanelli and Manta, 2022; Xiao, Zhou and Fang, 2023). However, there is little discussion in the literature about how digital finance might affect the future of banks and financial services. This paper examines the role of digital finance in shaping the future of banks and financial services.

This study contributes to the literature in the following ways. This study contributes to the literature that examines the prospects of digital finance innovations. This study also

contributes to the literature that examines the benefits and risks of digital finance. This study further contributes to the banking literature that examines how digital finance technologies are disrupting traditional banking.

The rest of study is structured as follows. Section 2 presents a literature review of digital finance. Section 3 discusses digital finance and the future of banks while section 4 discusses digital finance and the future of financial services. Section 5 presents the conclusion of the study.

2. Literature review

Existing studies such as Saal, Starnes and Rehermann (2017) show that the financial services industry is undergoing digital transformation especially in emerging market economies, and the digital transformation is led by non-bank innovators who are using financial technology to offer existing and new products and services to customers. Pazarbasioglu et al (2020) show that digital finance is enabling greater access to affordable financial services which is important for poverty alleviation and economic growth. They also show that digital financial services that are offered by fintech providers could reduce transaction cost, increase efficiency, increase speed, improve security, and increase the transparency of transactions. They also show that the COVID-19 pandemic amplified the need to use digital finance innovations to keep people safe and keep financial systems functioning during COVID-era lockdown restrictions that were characterized by social distancing and rising uncertainty. They further emphasized the need to increase investment in digital financial services and infrastructure, and such investment should be accompanied with the development of relevant legal and regulatory frameworks that can support the delivery of digital financial services. Ketterer (2017) show that new business models and technologies have emerged to transform the financial sector and are changing the way firms are accessing financing. The author emphasized that new digital technologies will undoubtedly improve and expand access to finance for firms and individuals, but some challenges may be encountered such as resistance by incumbent firms, lack of appropriate and timely regulation, poor and costly digital connectivity, and other unforeseen disruption. Fairooz and Wickramasinghe (2019) examine the case of a developing country, Sri Lanka. It was observed that the financial

industry in Sri Lanka has witnessed digital transformation which enabled greater connectivity and speed in the processing of information using new business models.

Ozili (2018) presented a discussion of digital finance and argue that digital finance that is offered through fintech offers many benefits such as convenience, low cost and greater efficiency. The author identified some benefits and risks of digital finance. The benefits are that digital finance enables the embedding of financial services into the platforms of non-financial businesses, the provision of secure banking services to customers, increase GDP growth, enables remote account management, and its gives users greater control of their personal finance. However, Ozili (2018) also show that the progress made in digital finance could be hindered by unequal access to mobile phone or digital devices, lack of internet connectivity, cybersecurity risks, high transaction cost, and lack of an enabling policy and regulatory environment. Finally, the author show that digital financial innovations will have implication for financial stability and financial inclusion in emerging and advanced economies. Ozili (2023), in a global review of digital finance developments, find that modern digital finance and its applications can be found in Fintech, embedded finance, open banking and decentralized finance, central bank digital currencies and private cryptocurrencies. The author also show that the factors motivating the widespread adoption of digital finance are the need for efficient financial services delivery, greater digital financial inclusion and the need for efficient payments. The author also find that the Fintech and mobile money sectors are the largest beneficiary of digital finance investments. The author further suggests that the future of digital finance will witness the customization and personalization of digital financial services and greater automation with little or no human assistance. Finally, the author identifies some challenges that may affect digital finance developments such as regulators failing to keep pace with emerging digital finance innovations and the presence of weak cyber security regulation and compliance frameworks.

Deng and Liu (2022) considered the role of digital finance in reducing unemployment. The author addressed the concern that rapid digital finance could lead to job loss in the financial sector, as automation and humanoid robots would replace jobs. The authors analyzed city-level data from China, and found that digital finance did not increase employment in the financial sector, rather it significantly decreased the level of employment. They also found that digital finance increased labor efficiency which means that the use of digital finance

technologies enabled existing employees to work with greater efficiency. Mu, Liu, Tao and Ye (2023) examine the influence of digital finance on corporate environmental, social and governance (ESG) in China. They examine some Chinese listed firm from 2011 to 2020, and find that the adoption of digital finance innovations enhances the ESG of firms by mitigating corporate financing constraints. They also observe that the effect was more evident in private entities, small firms, and in firms with low market value. Luo (2022) show that developments in digital finance not only alleviates the financing constraint of enterprises, it also leads to the digital transformation of enterprises, fosters enterprise innovation, and leads to the development of digital platforms that support the execution of innovative projects.

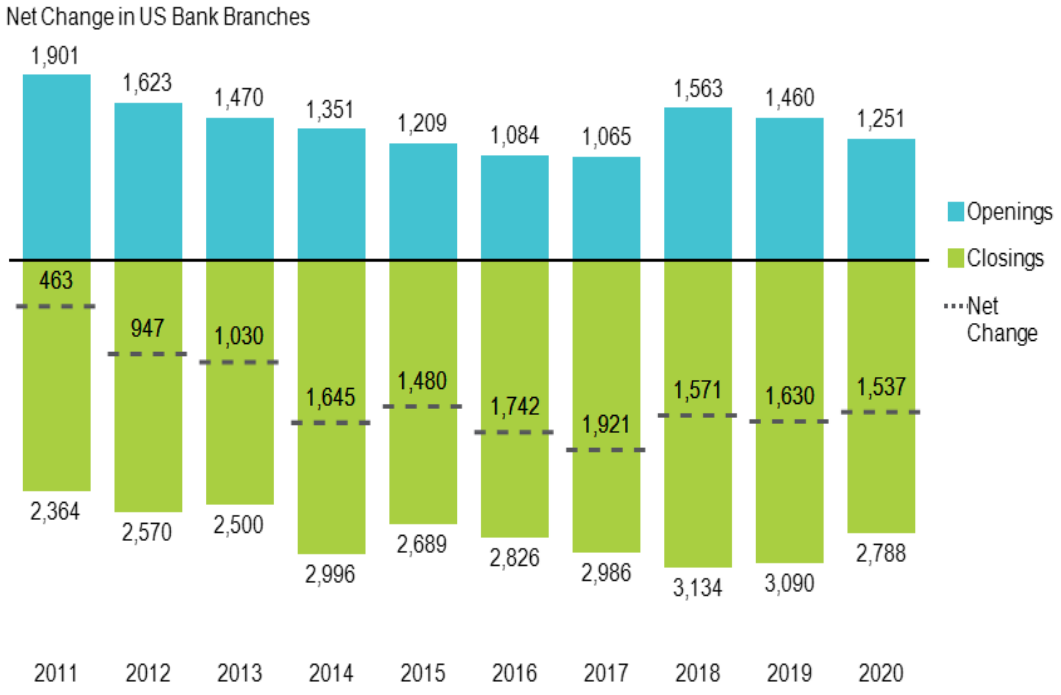
Liao, Li, Wang and Albitar (2022) focus on the differences in fintech development within different cities to determine the variation in urban digital finance in cities. The authors examine the case of China, and find that the growth of urban digital finance depends on the existence of digital financial technology and an enabling environment for digital finance. They also observe an increasing gap in digital financial development between cities in China. Zhang, Wang, Wang and Wang (2023) examine whether digital finance improves innovation within corporations. They analyze the data of some A-share listed companies in China from 2011 to 2017 and find that digital finance stimulates innovation in the Chinese companies. The authors also find that digital finance development promotes corporate innovation through two channels. The first channel is by improving bank competition and credit availability, and the second channel is by reducing financing constraints and financing costs of enterprises. They also find that the development of digital finance not only promotes enterprise innovation, but it also increases the number of patent applications and patents authorizations. Sun, Li, Ai and Li (2023) examine whether digital finance helps to mitigate or reduce corporate financial fraud. They show that digital finance reduces corporate financial fraud through a reduction in financing constraints, reduction in corporate leverage, and a decrease in agency costs. They also show that the extent of the reduction in corporate financial fraud depends on the coverage and depth of usage of digital finance. Their findings suggest that higher coverage and depth of usage of digital finance will effectively mitigate corporate financial fraud.

Overall, these studies show the beneficial effects of digital finance. But there are limited studies in the literature on how digital finance would affect the future of banks and financial services. The next section examines this issue.

3. Digital finance and the future of banks

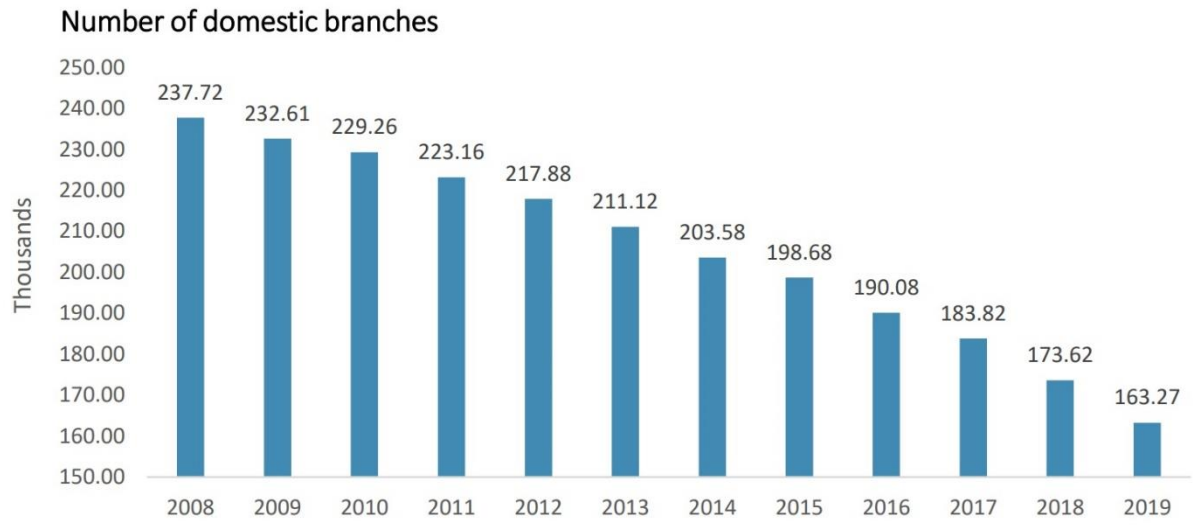
The surge in digital finance has led to a decline in branch banking across the world (Benmelech, Yang and Zator, 2023). Data from the US Federal Deposit Insurance Corporation (FDIC) shows that branch banking has declined in the last decade between 2010 and 2020, and more bank branches were closed than were opened during the period (see figure 1). In Europe, the number of bank branches is also on the decline due to rapid digitalization of banking (see figure 2). These data suggest that physical banks are becoming fewer and may be non-existent in the distant future. The reduction in physical bank branches indicates a growing preference for digital banking through digital payments and other electronic banking channels (Chen and Lam, 2014).

Figure 1. Net change in US bank branches



Source: U.S. FDIC

Figure 2: Number of domestic branches in Europe



Source: European Banking Federation

The closure of bank branches is mostly a commercial decision by banks designed to reduce cost and increase efficiency through the deployment of digital banking (Jayawardhena and Foley, 2000). However, the closing of bank branches could attract political and regulatory scrutiny because of its effect of rural communities especially for people who are already underserved (Martin-Oliver, 2019; Higgs, Price and Langford, 2022). Notwithstanding, regulators or politicians cannot interfere with the commercial decisions of banks who want to transition from branch-based brick-and-mortar banking to digital banking in preparation for the future. Therefore, it is very likely that the future of banking will witness fewer bank branches.

The rapid digitalization of finance will usher in an era of human-less banking in the future. This will be enabled by digital technology, automation, blockchain, artificial intelligence, machine learning and robotics (Boobier, 2020; Dewasiri et al, 2023). In the future, banks will operate with little or no human assistance. Many banks will have bank branches that are fully operated by humanoid robots while other banks will retain the use of humans and assign some banking tasks to humanoid robots. Also, the rapid digitalization of finance has led to a growing preference for banking specialization rather than having the usual traditional bank that is a one-stop shop for all financial services. Another trend to expect in the future of banking is that many bank customers will increasingly patronise online banks and may abandon physical bank branches in the pursuit of convenience (Shabu and Ramankutty,

2022). Bank customers want to be able to access banking services at the click of a button, and online banks and neobanks are emerging to meet this need. Another trend that would emerge is that digital finance will make banking become more personalised in the future. This is because banks will be able to use big data and AI analytics to offer unique and personalised solutions to customers (Boobier, 2020; Dewasiri et al, 2023).

These future changes in banking will be driven by technology and the transition will have implications for the profitability of banks, but banks that are able to manage this transition will succeed and be more profitable than their peers. The banks that will succeed in the future are banks that adapt to changing customer preferences, invest heavily in technology, retain customer trust and have the support of policymakers. Such banks must also develop a robust digital infrastructure that can handle both money, privacy, data and consent at the same time and at great speed to the satisfaction of customers.

4. Digital finance and the future of financial services

Digital finance has brought with it many innovations such as decentralized finance, digital payments and online lending innovations that are rapidly changing the nature of financial services. Some of the changes to expect in the future include the following.

4.1. AI and machine learning will shape the delivery of financial services.

In the future, financial institutions will deploy artificial intelligence (AI) and machine learning technology to understand and predict consumer financial behaviour in order to serve customers with the right financial services that meet their unique needs. AI and machine learning will enable a faster and accurate analysis of customer data to gain new insights that would be used to offer financial products and services that meet customer needs.

4.2. ESG investment will play a crucial role in changing financial services

In the future, customers will demand for financial services that incorporate environmental, social and governance (ESG) considerations. This is because, today, customers are already becoming aware of the negative impact of financial institutions' activities on the environment and society. Therefore, it is highly probable that, in the future, customers will place a demand

on financial institutions to offer products and services that incorporate ESG considerations. Financial services providers must prepare for this by increasing investment in ESG and deploying appropriate financial technology that would enable them to seamlessly incorporate ESG considerations into their current and new financial products and service offering.

4.3. Digital financial services will be more open due to open banking

Open banking will open new avenues for banks to engage with customers and for customers to get a better view of their finances, have control of their financial data and choose which financial information they want to share and the financial information they do not want to share with a verified and trusted third-party. Open banking will play a significant role in the future of digital financial services. Customers will be able to securely share their financial information with authorised third parties in a regulated and trust environment through open banking.

4.4. Cybersecurity will be a recurring issue in the future

Digital finance innovations e.g., Fintech channels, are prone to cyber-attacks by cyber criminals. Cyberattacks could lead to loss of customer trust and financial loss for customers. Therefore, cybersecurity will remain a dominant issue in the future of digital financial services. As the adoption of digital financial services increase, cyber-attacks will also increase and may affect customers negatively. Providers of financial services need to protect customers by increasing the security of their financial technology and digital platforms. They will need to enable encryption, multi-factor authentication and biometric identification protocols to secure their digital platforms and to protect customers from unauthorised access to sensitive financial information.

4.5. The job of the CFO will change too.

The digital revolution of financial services will lead to significant changes in the job of the chief financial officer (CFO) in the future. CFOs will have a big job of managing the relationship between humans and technology. They need to create an effective digital evolution or a digital culture that empowers all employees to use emerging digital technologies to design digital financial services, and the digital culture or digital evolution should flow from top management to low-level employees until the financial institution has a digital workforce that

is able to design digital financial services that is fit-for-purpose and is relevant for the digital age. In addition to having a digital workforce, CFOs should also be able to respond quickly to disruption and risks; create a culture of digital risk awareness; use real time data to gain insight into existing and new risks. The CFO should also be able to – identify new relevant customer segments; identify important market trends; think in a dynamic way; balance customer and organizational needs to create value for the customer; develop better ways of doing things; and know how to balance multiple priorities without reducing customer satisfaction.

4.6. Competition from new entrants, or challenger entities, willing to offer financial services

The future of financial services will also be characterized by new entrants or challenger entities e.g., non-banks, Bigtech, who will use their own existing platforms to offer financial services to the users of their platforms. These entities will either use existing business models and innovative technologies to solve known problems for end users, or there maybe new entrants coming into the digital finance space with a completely new business model and new innovative technologies to serve customers better.

4.7. Bank customers will have high expectations from their banks

Customers are becoming more knowledgeable about the financial services that are available in the market because customers do their own research too. In the future, customers will expect banks to offer more services than basic banking services. If traditional banks cannot meet these expectations, customers will prefer to patronize digital banks rather than traditional banks. Therefore, banks that want to retain their customers must offer alternative digital (non-core) banking services in addition to their core banking services. Digital-only banks or neobanks have an advantage in this space because they already offer non-banking services with enticing interest rate, very low fees, add-on services and other perks that customers cannot resist. This has enabled digital banks to increase their client base and win over the customers of traditional banks.

5. Conclusion

This article offered insights into digital finance and the future of banking and financial services. It was shown that digital finance innovations are disrupting banking and the nature of financial services. More disruptions are expected in the future. The emergence of new digital technologies combined with changing consumer preferences is forcing financial services providers to undertake massive digital transformation in order to deliver unique and bespoke financial services that are fit-for purpose and relevant for the digital economy. Banks and other financial institutions that want to survive in the future must undertake rigorous digital transformation to compete for market share in new customer segments and to meet customers needs. If the digital transformation is managed well, it could lead to higher profits, low cost and new revenue streams for financial service provodiers. In conclusion, nobody knows for sure what the future of banking and financial services will be. But there are expectations that the digital finance revolution could change the face of banking and financial services in the future. But regulation and geopolitical changes could alter the future of banking and financial services.

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