

REVIEW ARTICLE

TRANSFORMATION OF FINANCIAL BEHAVIOR: A CASE STUDY ON PREFERENCE AND USE OF DIGITAL BANKING SERVICES

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ABSTRACT

This research aims to investigate the transformation of consumer financial behavior in the context of the digital banking era in Indonesia. The research method used is a quantitative descriptive analysis using secondary data containing the value of digital banking transactions in Indonesia from 2018 to 2023. The research results show that digital banking transformation has influenced consumers' preferences and usage patterns of digital banking services, with a significant increase in adoption. digital banking technology. The contribution of this research is to provide a deeper understanding of how consumer financial behavior is changing in the digital banking era, as well as the implications for the banking industry and the economy as a whole.

KEYWORDS

Transformation, Behavioral Finance, Digital Banking, Consumers, Preferences

1. INTRODUCTION

In the current era of digital transformation, the banking sector in Indonesia has experienced significant changes with the emergence of digital banking services. The development of information and communication technology has enabled people to access banking services online through various platforms, such as mobile banking applications and Internet banking. Amid these changes, consumer financial behavior is also undergoing a striking transformation. Consumers tend to switch from conventional transactions to digital transactions, creating new preferences and different patterns of using banking services. Therefore, case studies on preferences and use of digital banking services are relevant in this context, as they can provide deep insights into how consumers are responding to these changes and how digital banking services can meet their needs and expectations. By understanding this background, this research aims to analyze the transformation of consumer financial behavior in the digital banking era in Indonesia.

This study has significant relevance in the context of the transformation of the banking industry and consumer behavior in the current digital era. By understanding changes in preferences and usage patterns of digital banking services, this research provides a deep understanding of how consumers interact with financial services in the digital environment. The importance of this study lies in its ability to improve digital banking services by meeting consumer needs and expectations, as well as supporting innovation and development of relevant products. Apart from that, the results of this study also contribute to the creation of policies and regulations that are in line with the development of the digital banking industry, including aspects of consumer protection and data security. Overall, this study not only contributes new knowledge about consumer financial behavior in the digital banking era but also has the potential to have a positive impact on the industry, consumers, and the economy at large.

The main problem that arises in this study is the complexity and rapid change in the digital banking industry. Rapid technological transformation, evolving consumer trends, and intense competition in the market can pose challenges to understanding consumer financial behavior as a whole. In addition, privacy and data security issues are also a major concern, considering the risks associated with using digital banking services, such as personal information leakage and online fraud. Limited access to technology is also a problem, especially for people who are less accustomed to or have limitations in using digital technology. Additionally, there are still gaps in financial inclusion in some regions, which may influence the study results and their implications for the population as a whole. By identifying and addressing these problems, this study can provide more accurate and relevant results to support the development of digital banking services that are inclusive, safe, and responsive to consumer needs.

This research aims to investigate and understand the transformation of consumer financial behavior in the context of the digital banking era in Indonesia. Then, this research aims to identify preferences and patterns of use of digital banking services by consumers, as well as the factors that influence their decisions to use these services. In addition, this research also aims to explore the impact of this transformation on the banking industry, financial regulation, and financial inclusion as a whole. By understanding and analyzing trends and dynamics in consumer financial behavior in the digital era, this research aims to provide valuable insights for banks, regulators, and other stakeholders in optimizing digital banking services and ensuring the sustainability and inclusiveness of the financial system in Indonesia.

2. THEORETICAL BASIS AND PREVIOUS RESEARCH

Portfolio Theory (Markowitz, 1952), Portfolio Theory is a theory in finance that investigates how investors can optimize their investment returns by choosing the right combination of various financial assets. This theory was developed by Harry Markowitz in 1952 and is the basis for modern theories of risk management and investment. Portfolio theory emphasizes the importance of diversification to reduce investment risk and seek a

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balance between expected returns and the level of risk acceptable to investors. By using the principles of Portfolio Theory, investors can build optimally efficient portfolios, which produce high levels of return with measurable risk.

Portfolio theory has strong relevance in the context of studies on the transformation of financial behavior in the digital banking era in Indonesia, especially in case studies regarding preferences and use of digital banking services. In portfolio theory, the concept of diversification is an important key in managing investment risk by choosing the right combination of various financial assets. Likewise, in the context of digital banking, the concept of diversification can be applied in selecting the various digital banking services available to meet consumer needs and preferences.

Apart from that, Portfolio Theory also emphasizes the importance of finding a balance between expected returns and the level of risk that investors can accept. In the context of this study, this can be interpreted as the importance for digital banking service providers to offer a variety of products and features that can meet consumers' expectations for a convenient and efficient experience while minimizing the risks associated with data security and online transactions.

By applying the principles of Portfolio Theory, this study can help understand consumer preferences for the various digital banking services offered, as well as the factors that influence their decisions in using these services. This can help digital banking service providers design efficient and optimal service portfolios, which can increase consumer satisfaction and minimize risks associated with the transformation of financial behavior in the digital banking era.

In the review section of previous research, we will start with the important role of digital accounting transformation in improving business performance, especially in the Jordanian banking sector (Al-Okaily et al., 2023). By collecting data through questionnaires from 190 respondents and applying Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis, the results show that digital accounting adoption, FinTech innovation, and technological competition are the main drivers for improving business performance in this context. Technological expertise has also been shown to influence the relationship between digital accounting adoption and FinTech innovation and improved business performance indirectly. These findings provide valuable insights for practitioners planning to adopt digital technologies to improve their business performance. This research can make an important contribution to understanding the role of technology in improving banking sector performance. Case studies in Indonesia can involve aspects of preferences and use of digital banking services, enriching insight into the transformation of financial behavior amidst the development of the digital banking era. Integrating the findings from these two studies can provide a more comprehensive understanding of the impact of digital transformation on financial performance and behavior in the global and regional banking context.

The next review will explain research that focuses on the influence of digital financial technology, especially the use of mobile phones and the internet, on financial stability in the banking sector of developing economic countries (Antwi and Kong, 2023). Using data from 55 developing countries over the period 2000-2020, this research aims to investigate the correlation between digital financial technology and financial stability. The results of analysis using quantile regression show that cellphone subscriptions, as an indicator of digital financial technology, have a negative impact on the financial stability of these developing countries. On the contrary, research findings show that internet use, as another indicator of digital financial technology, has a positive impact on financial stability in these emerging economies. The results of this study can provide a comprehensive understanding of financial transformation in the digital banking era in Indonesia. Research reveals the implications of digital financial technology globally.

The next review will briefly explain research that aims to investigate the relationship between online banking service practices and e-customer satisfaction and loyalty in developing countries in South Asia, especially in Nepal (Gautam and Sah, 2023). This research adopts the ES-QUAL model to assess online banking service quality (OBSQL) based on dimensions such as e-customer service, organizational website, website efficiency, user engagement, security, and privacy. With a quantitative research approach using a structured questionnaire distributed through stratified random sampling, a total of 384 usable responses from 475 questionnaires were analyzed using SPSS and AMOS. Website efficiency and e-customer service emerged as the most influential dimensions of online banking service practices, followed by user engagement, security and privacy, and

the organization's website. The research results reveal that e-customer satisfaction has a significant influence on e-customer loyalty, and e-satisfaction is a mediator in the relationship between online banking services and e-customer loyalty. This model contributes to understanding the quality of online banking services in developing South Asia and provides insights for banks, users, and policymakers to facilitate sustainable development in this area.

This is then continued with research that seeks to explore the impact of digital transformation on bank performance, with a focus on share-based banking companies in Vietnam that are listed on the stock exchange (Nguyen-Thi-Huong et al., 2023). Through text analysis of annual reports from 2015 to 2021, this research aims to measure the level of bank digital transformation. The research results show that digital transformation has a negative impact on bank performance, especially through the return on assets and return on equity indicators. Interestingly, the research also found a paradoxical situation where the COVID-19 pandemic increased bank profits. These findings invite interesting discussions regarding digital transformation and bank performance.

The next review concerns research that aims to explore and analyze the implications of digital financial services (DFS) on human development globally (Sharma and Diaz Andrade, 2023). Based on a systematic literature review of research published in the last two decades, from 2000 to 2020, this research identifies six main themes: contextual conditions, technological skills, and financial literacy, consistent beliefs, shaping financial behavior, empowering economic activities, and support towards financial inclusion. Further analysis categorized these themes into two dimensions related to DFS: baseline conditions and effective impacts. The discussion includes how these dimensions enhance our understanding of the role of information and communication technologies in contributing to human development. Additionally, this research presents practical implications for various stakeholders in the financial sector.

Finally, in this review section of previous research, we discuss whether financial inclusion can moderate the effect of digital transformation on bank performance in China (Yang and Masron, 2023). Digital transformation remains a trend, where science and technology globally transform businesses to become more competitive and support sustainable development. This study uses the System GMM-two step estimator and data from 118 Chinese banks from 2014 to 2021 to investigate the issue. Empirical results show that digital transformation has a negative impact on bank profitability in several aspects, but digital financial inclusion allows banks to change their digital transformation behavior and improve their performance. Therefore, it is recommended that banks continue to strengthen digital transformation by expanding online customer services, increasing the use of electronic accounts and mobile applications, providing offline digital services, strengthening digital risk management and privacy and security controls, reducing customer psychological risks, and promoting financial inclusion. Financial inclusion needs to achieve a simultaneous reduction in customer financial exclusion and an increase in customer financial literacy. All these factors will help banks maintain profitability by leveraging synergies with financial inclusion in the digital transformation process.

3. RESEARCH METHODS

This research uses quantitative descriptive methods to analyze trends in the value of digital banking transactions in Indonesia from 2018 to 2023. The secondary data used comes from Bank Indonesia, which includes information about the value of digital banking transactions during that period. The main objective of this research is to explain and identify patterns and changes in the use of digital banking services over the period studied. The data will be analyzed descriptively to describe the trends that occur, as well as quantitatively to calculate the growth in the value of digital banking transactions from year to year.

4. DISCUSSION

Based on data from Bank Indonesia, the value of digital banking transactions in Indonesia in April 2023 will reach IDR 4,264.8 trillion or almost IDR 4.3 quadrillion. This transaction includes various digital banking services such as internet banking, SMS/mobile banking, and telephone banking by the classification of the Financial Services Authority (OJK). According to OJK Regulation Number 12/POJK.03/2018, digital banking services are banking services carried out via electronic media by optimizing the use of customer data. The value of digital banking transactions in April 2023 decreased by 11.8% compared to March 2023 and decreased by 20.1% compared to April 2022. However, if you look at the last five years, the value of digital banking transactions in Indonesia increased by 158 % compared to April 2018. This shows that despite

monthly fluctuations, the trend in the use of digital banking services in Indonesia tends to strengthen overall. According to the Head of the BI Communications Department, Erwin Haryono, payment system transactions continue to increase with maintained system stability and improvements in digital payment services (Ahdiat, 2023).

Bank Indonesia (BI) noted that digital economic and financial transactions continue to increase. Until the third quarter of 2023, the value of transactions using Electronic Money (EU) increased by 10.34% compared to the previous year, reaching IDR 116.54 trillion. BI Governor, Perry Warjiyo, stated that digital banking transactions also increased to IDR 15,148.71 trillion or grew by 12.83% from the previous year. According to him, this growth is supported by a safe, smooth, and reliable payment system. Transactions using QRIS also experienced significant growth, with transaction value increasing 87.90% to IDR 56.92 trillion. The majority of QRIS users and merchants are MSMEs. BI continues to encourage the digitalization of payment systems and cooperation between countries to increase financial inclusion and the digital economy. However, the value of transactions using ATM cards, debit cards, and credit cards decreased by 4.94% compared to the previous year. The amount of Currency in Circulation (UYD) also increased by 6.16% to IDR 961.59 trillion in the third quarter of 2023. Bank Indonesia also ensures the availability of good quality Rupiah currency throughout Indonesia through the money distribution program to 3T areas and other activities (Nurhakim, 2023).

5. OPINIONS AND ARGUMENTATIONS

Author's Opinions and Arguments:

- **Growth in Digital Banking Transactions:** The author notes significant growth in digital banking transactions in Indonesia, indicating increasingly widespread adoption of digital banking services. Even though there was a decline in certain months, if you look at it in the long term, the trend tends to be positive with a growth of 158% in the last five years. This shows that people increasingly trust and rely on digital banking services in their financial activities.
- **Bank Indonesia Support:** The author underlines the role of Bank Indonesia in encouraging digital economic and financial growth. BI's support can be seen from various policies and efforts to strengthen payment systems, improve security, and promote financial inclusion. This is reflected in the significant growth in transactions using Electronic Money (EU), QRIS, and digital banking, all of which are supported by BI policies.
- **Challenges and Opportunities:** Even though there has been significant growth in digital banking transactions, the author also acknowledges the existence of challenges, such as a decline in transactions using ATM cards, debit cards, and credit cards. However, the increase in the amount of Currency in Circulation (UYD) shows that there is still a preference for cash. In this case, the author might argue that further education is needed for the public about the benefits and safety of using digital banking services.
- **Availability of Rupiah Currency:** The author highlights the importance of the availability of Rupiah currency in supporting the digital economy. Through the money distribution program to 3T areas and other activities, Bank Indonesia ensures that Rupiah money is available throughout Indonesia. This is an important step to support digital economic and financial growth across the country.

6. PORTFOLIO THEORY

Portfolio theory has strong relevance in the context of the transformation of consumer financial behavior in the digital banking era in Indonesia, especially in case studies regarding preferences and use of digital banking services. Portfolio theory refers to the concept of investment diversification, where individuals divide their funds across various financial instruments to reduce risk and increase potential returns. In the context of digital banking services, consumers also tend to diversify by utilizing various types of services, such as Internet banking, mobile banking, and digital payments, to meet their financial needs.

In addition, portfolio theory can also describe how consumers make decisions about using digital banking services based on their risk profile and preferences. As in portfolio theory, where investors evaluate the risk and expected return of each investment, consumers also make similar calculations regarding the security, convenience, and benefits obtained from using digital banking services.

In addition, the concept of portfolio efficiency in portfolio theory can refer to consumers' efforts to optimize the combination of digital banking services that provide maximum benefits with minimum costs and risks. In the digital banking era, consumers tend to look for a combination of services that provide easy access, features that suit their needs, and a high level of security.

Portfolio theory has an important role in understanding consumer financial behavior in the digital banking era, especially in the context of case studies regarding preferences and use of digital banking services in Indonesia. Its main role is as a framework that helps analyze how consumers make decisions regarding the allocation of their financial resources in a complex digital banking environment.

First, portfolio theory helps consumers manage risk and maximize returns. In the context of digital banking services, consumers need to consider various risk factors, such as the security of online transactions and the reliability of the digital platform, as well as the potential profits or benefits obtained from using these services.

Second, portfolio theory provides a basis for diversifying digital banking services. Consumers can use various types of services, such as internet banking, mobile banking, and digital payments, to achieve their financial goals. This diversification allows consumers to reduce dependence on one type of service and increase flexibility in managing their finances.

Third, portfolio theory helps consumers optimize the combination of digital banking services that suit their preferences and needs. By considering factors such as cost, security, and quality of service, consumers can use portfolio efficiency principles to select a combination of services that provide maximum benefit with minimum risk and cost.

Thus, the role of portfolio theory in the digital banking context is to provide a systematic and holistic framework for understanding consumer financial behavior, as well as helping consumers make better decisions regarding their financial management in the digital era.

7. CONCLUSION

Based on case studies regarding preferences and use of digital banking services in Indonesia, it can be concluded that a transformation in consumer financial behavior has occurred in the digital banking era. The growing demand for digital banking services reflects consumers' drive to take advantage of the convenience and efficiency offered by this technology. Consumers tend to prefer digital banking services because of easier access, convenience, and efficiency in carrying out transactions and financial management. Factors such as transaction security, service quality, and ease of use are the main considerations in consumers' decisions to use digital banking services. Therefore, banking companies and financial service providers need to continue to improve the quality of their digital services to meet consumer expectations and remain competitive in the market. Education and financial literacy are also important in helping consumers use digital banking services wisely and be aware of the associated risks. Thus, this study provides a clear picture of the importance of adapting to changes in consumer behavior in the digital banking context.

LIMITATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

Limitations of this study may include limitations in data collection, such as limited access to respondents or available secondary data. Additionally, these studies may be limited to certain geographic coverage or to samples that are not fully representative of the population as a whole. Recommendations for future research include conducting more in-depth research on the factors that influence preference and use of digital banking services, as well as conducting broader and more representative surveys to gain a more thorough understanding of consumer behavior across various segments of society. In addition, further research can examine the impact of the transformation of consumer financial behavior in the digital banking era on other aspects, such as financial inclusion, economic growth, and financial system stability.

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