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### DIGITAL TRANSFORMATION, COOPERATION AND GLOBAL INTEGRATION IN THE NEW NORMAL

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# ACTIVITIES OF DIGITAL TRANSFORMATION IN VIETNAMESE COMMERCIAL BANKS: AN OVERVIEW DURING THE COVID-19 RECOVERY PERIOD

*Nguyễn Thị Quỳnh Châu, Đào Lê Kiều Oanh*

*1 Van Lang University, Ho Chi Minh City*

*2 Ho Chi Minh City Banking University*

*chau.ntq@vlu.edu.vn*

## **Summary:**

*With the rapid penetration and global spread of digital money, along with the development of information and communication technology, Vietnam has also been developing its national digital currency in line with the global trend. As the global economy is recovering from the COVID-19 pandemic, digital transformation is playing an increasingly important role in the global economy. Implementing digital transformation in banks is no longer a matter of choice but will shape the future. This article provides recommendations to enhance the process of digital transformation in Vietnamese commercial banks.*

**Keywords:** *digital transformation, financial technology, Vietnamese commercial banks*

## **1. Introduction:**

The COVID-19 pandemic has led to the digitalization process of many businesses across countries. The role of technology and digital transformation in the development of organizations in all sectors, especially the banking sector, is essential. One of the most significant changes that technology has successfully utilized during the crisis is how society adapts and utilizes financial services and payments for goods and services. Digital transformation for businesses is a strategic change process for enterprises in general and for commercial banks in particular, creating new operating models and unprecedented values. However, digital transformation also poses challenges for businesses and banks. In line with the Party's and State's guidelines, Vietnam aims to have the digital economy account for 30% of GDP by 2030. Digital transformation is no longer just an idea or a vision for the future but a necessary step to adapt to the era of Industry 4.0, in which the banking industry has taken the lead in driving digital transformation. Digital transformation in the financial and banking sector is considered one of the government's priority directions.

According to the Southeast Asia Digital Economy Report 2021, it is forecasted that Vietnam's digital economy will reach \$50 billion by 2025. This further affirms that digital transformation is becoming an important resource to drive the country's socio-economic development. It opens up many opportunities and growth prospects for Vietnam in the near future. The issue of measuring the impact of technology investment on the effectiveness and stability of banking operations is receiving attention not only from researchers but also from regulatory agencies (Nguyen Duc Trung, Tran Viet Dung, Lu Huu Chi, 2022).

## **2. Overview of recent studies**

### **2.1. Studies conducted abroad**

In digital transformation activities, more emphasis needs to be placed on business, organizational, and technological factors. The author also addresses factors influencing the digital transformation process, including organizational culture change, customer engagement, and information security issues (Vial, 2019). Additionally, some important standards and factors for evaluating the success of digital transformation in the banking industry include considering technical processes, cultural change, vision, and strategy of the bank (Plekhanov, D., Franke, H., & Netland, T. H., 2022). The role of digital transformation in creating value for financial institutions has been demonstrated as many financial institutions have studied digital transformation, researchers and managers still face difficulties in assessing the impact of digital transformation on business performance (Do, T. D., Pham, H. A. T., Thalassinou, E. I., & Le, H. A., 2022). Digital transformation affects almost every aspect of society and has consequences for contemporary companies (Werth, O., Schwarzbach, C., Rodríguez Cardona, D., Breitner, M. H., & Graf von der Schulenburg, J. M., 2020). The digital transformation of Chinese financial institutions is based on their efficiency improvements. The COVID-19 pandemic has accelerated the spread of the digital economy throughout the Chinese economy, leading to a strong demand for "contactless" financial services. The author analyzes banks with superior effectiveness in science and technology investment and evaluates their digital maturity and digital transformation experience. The results show that digital investments have significantly improved production efficiency for financial institutions; however, there is heterogeneity among banks (Zuo, L., Strauss, J., & Zuo, L., 2021).

Measuring the impact of financial restructuring on the overall financial operations of banks in Vietnam is crucial. Restructuring liabilities and equity is necessary. Increasing equity and reducing liabilities will improve the overall financial performance, while restructuring bad debts to reduce non-performing loans will also enhance financial efficiency. Additionally, evaluating the financial effectiveness after restructuring of banks in Vietnam should be based on longer-term data. Furthermore, it is important to consider the differences among different groups of banks to draw accurate conclusions about financial operations (Duong, T. T. N., Phan, H. T., Hoang, T. N., & Vo, T. T. T., 2020) & (Werth, O., Schwarzbach, C., Rodríguez Cardona, D., Breitner, M. H., & Graf von der Schulenburg, J. M., 2020).

Digitalization methods enhance the efficiency of operations for banks. Banks in Kenya need to focus more on digitizing banking services to meet customer needs. If the process of digitizing banking services is improved, the issue of customers coming to the bank and waiting in long queues for minor issues will be a thing of the past. The essence of digitizing banking service processes is to reduce waiting time, break bottlenecks, and facilitate faster transactions. If this is fully and accurately implemented, the digitalization process will have a significantly greater positive relationship with the operational efficiency of banks (Maina, 2021).

## **2.2. Domestic Studies**

In a different approach, digital transformation in Vietnamese commercial banks is happening strongly through investment in technological innovation, collaboration with fintech companies to automate processes, provide new products and services, and enhance customer experience... Digital transformation also brings benefits and advantages to banks in competition (Hai, L. V., & Lan, N. T. H., 2022). The impact of Fintech companies on the operational efficiency of domestic commercial banks and quantifying the impact of the emergence of Fintech companies on the operational efficiency of domestic commercial banks in the Vietnamese market (Dinh Thi Thu Hong and Nguyen Huu Tuan, 2021). Digital transformation is also understood as a shift from traditional business models to digital business models by applying new technologies such as Big Data, Internet of Things (IoT), Cloud Computing... to change management methods, leadership, work processes, and corporate culture (Van, 2021). Recent studies have explored



digital technology in the banking service sector, including topics such as mobile payments, e-wallets, mobile banking, internet banking, electronic banking, digital currency, and electronic payments. Another area of research is digital transformation in financial technology and banking, focusing on regulations, collaboration, and challenges. Data management and information governance in banking are also discussed, particularly in relation to technology interactions in banks, such as automated interactions, mobile device applications, and virtual advisory services. Despite efforts to adopt technology in their operations, Vietnamese banks still face challenges in implementing digital technology due to technological limitations and resource constraints. Therefore, research on digital technology in the banking industry in Vietnam continues to attract both domestic and international researchers (Thao, 2022).

### 3. Theoretical Foundation

#### 3.1. Concept of Digital Transformation in Banking

Digital transformation is not just about applying technology, but also about changing the organization, processes, and culture of a bank. The benefits of digital transformation in the banking industry include improving customer experience, enhancing efficiency, and increasing competitiveness. It also identifies challenges that may arise during the digital transformation process, such as information security, risk management, and organizational cultural change (Plekhanov, D., Franke, H., & Netland, T. H., 2022). Digital transformation in the banking sector is a complex process that requires proper investment, including steps such as structural changes, value creation, technology utilization, and financial considerations. Digital transformation is seen as a driver and provider of solutions to the challenges faced by the banking industry in the digital age (Matt, C., Hess, T., & Benlian, A., 2015), (Thu, 2022). Digital transformation in the banking industry can be understood as the integration of digitization and digital technology into all aspects of banking operations. This integration allows for the creation of new changes or adjustments to existing business processes, culture, and customer experience to meet the changing market demands and customer expectations.

#### 3.2. The steps of digital transformation in the banking industry

The steps of digital transformation in the banking industry can be described as follows

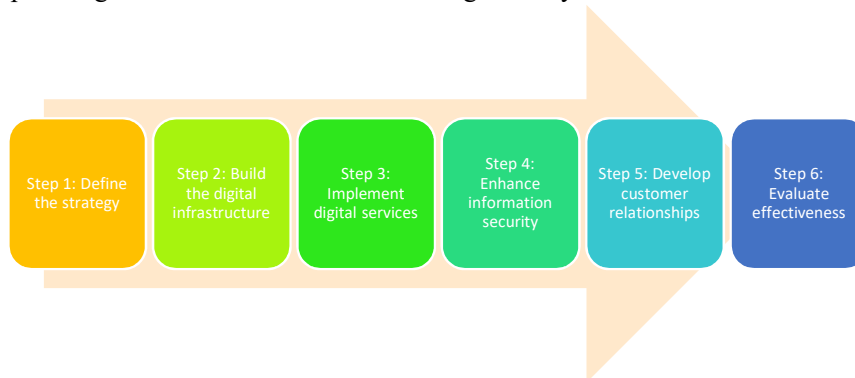


Diagram 1: Illustration of the digital transformation process in the banking industry.

##### Step 1: Define the strategy

The first step is to assess the current state of the bank and determine the objectives of digital transformation. The bank needs to evaluate the goals and needs of its customers and the market.

- Assess the goals and needs of customers and the market.
- Determine a digital transformation strategy that aligns with those goals and needs.

##### Step 2: Build the digital infrastructure

The bank needs to establish a robust digital infrastructure, including network infrastructure, databases, and software applications.

- Build network infrastructure and databases.
- Establish and implement software applications to create a solid digital foundation.
- Develop server systems, networks, software, and new technologies such as artificial intelligence, blockchain, and cloud computing.

#### Step 3: Implement digital services

- The bank needs to integrate existing and new systems into a single system. This helps optimize workflows and enhance information exchange between departments within the bank.
- The bank needs to find ways to leverage digital technology to create value for customers. This can involve providing online services, enhancing customer experience through mobile applications, or developing new products and services. The bank can implement digital services such as internet banking, mobile banking, electronic payments, and other financial services.

#### Step 4: Enhance information security

Enhancing information security is a crucial factor in the digital transformation process in the banking industry. To ensure the safety and security of customer information, the bank needs to implement the following measures:

- Identify and assess risks: The bank needs to identify and assess information security risks, including classifying and prioritizing risks based on severity.
- Establish policies and procedures: The bank needs to establish information security policies and procedures to ensure compliance with regulations and information security standards.
- Protect technology infrastructure: The bank needs to implement measures to protect its technology infrastructure, including using security technologies such as data encryption, firewalls, and anti-malware software.
- Train employees: The bank needs to train employees on information security principles, identifying threats and preventive measures, and provide guidance on protecting customers' personal information.
- Conduct testing and monitoring: The bank needs to perform regular testing and monitoring to identify information security vulnerabilities and apply remedial measures.
- Collaborate with partners: The bank needs to collaborate with partners and service providers to ensure that information security standards are adhered to throughout the system.

Enhancing information security is an ongoing process that requires attention and commitment from the bank. By implementing effective information security measures, the bank can protect customer information and maintain their trust during the digital transformation process.

#### Step 5: Develop customer relationships

Developing customer relationships is a crucial factor in the digital transformation process in the banking industry. To develop and maintain good relationships with customers, the bank needs to do the following:

- Improve customer experience: The bank needs to create a good and convenient customer experience by providing online services, mobile applications, and fast transactions.

- Enhance digital interactions: The bank needs to enhance digital interactions with customers through channels such as email, messaging, websites, and social media. This helps create an efficient and convenient communication channel for customers.

- Provide personalized services: The bank needs to provide personalized services based on customer information and preferences. This helps enhance interaction and create enjoyment for customers.

- Develop new products and services: The bank needs to continuously research and develop new products and services to meet the needs of customers in the digital age. This helps create differentiation and attract new customers.

- Build long-term relationships: The bank needs to build long-term relationships with customers by providing quality services, support, and advice. This helps build trust and loyalty from customers.

- Utilize data analytics technology: The bank can use data analytics technology to understand and predict customer needs. This helps create effective marketing strategies and customer service.

Developing customer relationships is an ongoing process that requires attention and commitment from the bank. By creating a good customer experience and providing suitable services and products, the bank can enhance customer relationships and create sustainable business benefits. Step 6: Evaluate effectiveness

The bank evaluates the effectiveness of the digital transformation process by measuring key business metrics such as revenue, profitability, and customer satisfaction.

In summary, the steps of digital transformation in the banking industry include defining a strategy, building a digital infrastructure, implementing digital services, enhancing information security, developing customer relationships, and evaluating effectiveness.

#### **4. The current situation of digital transformation activities in Vietnamese commercial banks is as follows.**

##### **4.1. The benefits achieved are as follows**

Nowadays, the rapid development of technology has led to quick changes, and customer demands have also evolved beyond basic products and services. To meet the customers' needs for making requests for goods and services with just a click on a mobile device, banks need to adapt faster to this new consumer behavior. Currently, many banks have recognized the long-term strategic importance of innovation, initiating digital transformation strategies, and adopting new business models.

- Internet Banking and Mobile Banking: Most Vietnamese commercial banks have implemented Internet Banking and Mobile Banking services for customers. These services allow customers to perform banking transactions conveniently through the internet or mobile phones (Sơn, T. H., Lý, H. T. N., & Ngọc, T. T. T, 2020).

- Online Payments: Banks actively participate in national online payment systems such as VNPay, Momo, ZaloPay, as well as international payment gateways like Visa and Mastercard. Customers can make online payments for services, online shopping, and transfer money through mobile applications (Linh, 2020).

- Other Online Services: In addition to Internet Banking and Mobile Banking, Vietnamese commercial banks are also developing other online services such as online account opening, online lending, online savings deposits, and other digital financial services.

- Artificial Intelligence (AI) and Chatbots: Some banks have utilized AI and chatbot technology to provide automated customer services. Chatbots can engage in conversations and answer customer queries,

saving time and enhancing convenience in communication with the bank (Hải, L. V., & Lan, N. T. H., 2022).

- **Blockchain and Cryptocurrency:** Vietnamese commercial banks are also showing interest in blockchain technology and cryptocurrencies. Several projects and experiments involving the use of blockchain and cryptocurrencies in payments and financial transactions are being conducted.

However, it is important to note that the digital transformation landscape may vary among banks and depends on the speed and development strategies of each organization. This means that some banks may be more advanced in their digital transformation efforts compared to others.

#### **4.2. Limitations:**

Vietnamese commercial banks have made significant progress in their digital transformation journey. However, there are still some challenges that need to be addressed:

**Digital infrastructure:** Some banks still face difficulties in building and maintaining robust digital infrastructure. Issues such as unstable network systems, inefficient databases, and a lack of advanced software applications can impact the customer experience.

**Information security:** Despite enhanced information security measures, there are still risks associated with protecting customers' personal information. Data breaches and cyber attacks remain potential threats.

**Online services:** While some banks have implemented online services, there are still limitations in terms of features and customer experience. Features such as electronic payments, online money transfers, and mobile app transactions need improvement to meet the increasing customer demands.

**Awareness of digital transformation:** Some banks still lack awareness and high commitment to the digital transformation process. This may be due to a lack of understanding of the benefits and potential of digital transformation or difficulties in changing organizational culture.

However, there are also banks that have achieved significant success in digital transformation, providing convenient online services and enhancing information security. The development of emerging technologies such as artificial intelligence and blockchain is also creating new opportunities for banks to improve customer experience and enhance business efficiency.

#### **5. Recommendations:**

In recent times, the race for digital transformation has not only been limited to private commercial banks but also extends to state-owned banks. Some banks have made significant progress in technology development and have entered the second phase of digital transformation, which is digital innovation. However, due to limited investment in technology and a lack of comprehensive digital transformation strategies in many banks, the majority of them are still in the early stages of the digital transformation process.

##### **5.1. For the Government and administrative agencies**

First, improve the legal framework to regulate online business and digital banking activities. Legal documents from the Government and administrative agencies help establish limits, set standards, and create a fair business environment, facilitating the development of digital banking services. Relevant legal documents such as laws and decrees govern the process of online business, electronic documents, digital signatures, and electronic certifications.

Second, develop information technology infrastructure and internet connectivity. Information technology is essential for the growth of digital banking services. Currently, digital banking services are still relatively new in rural areas, which poses challenges in utilizing and benefiting from the advantages

they offer. Therefore, the Government aims to promote, enhance, and develop information technology and widespread internet access throughout the country, not only providing a useful tool for people's daily lives but also creating conditions for the development of digital banking services.

Third, promote the development of e-commerce, attract investors, and support banks in developing digital banking services. The Government and administrative agencies can boost e-commerce development, incentivize and support investors, businesses, financial institutions, and online trading enterprises, thereby generating business demand, payment transactions, and potential customers for digital banking services.

## **5.2. For commercial banks**

To further accelerate and enhance the digital transformation efforts in Vietnamese commercial banks, the following recommendations can be considered:

**Increase investment in digital infrastructure:** Banks should allocate sufficient resources to build and maintain robust digital infrastructure. This includes upgrading network systems, improving database efficiency, and adopting advanced software applications to ensure a seamless customer experience.

**Strengthen information security measures:** Banks need to continuously enhance their information security protocols to protect customer data from potential breaches and cyber attacks. This involves implementing robust security systems, conducting regular audits, and providing cybersecurity training to employees.

**Enhance online services:** Banks should focus on improving the functionality and user experience of their online services. This includes expanding electronic payment options, streamlining online money transfer processes, and developing user-friendly mobile applications.

**Foster a culture of digital transformation:** Banks should prioritize creating awareness and fostering a culture of digital transformation within their organizations. This involves providing training and education on the benefits and potential of digital transformation, encouraging innovation and collaboration among employees, and aligning the organization's goals with digital transformation objectives.

**Collaborate with fintech companies:** Banks can leverage partnerships with fintech companies to accelerate their digital transformation journey. Collaborations can involve sharing expertise, adopting innovative technologies, and exploring new business models to enhance customer experience and drive operational efficiency.

By implementing these recommendations, Vietnamese commercial banks can further advance their digital transformation efforts and stay competitive in the rapidly evolving digital landscape.

## **6. Conclusion**

In the era of the Fourth Industrial Revolution, digital transformation is inevitable for the economy, especially in the financial and banking sector. Digital transformation has brought numerous benefits to commercial banks, including increased security, enhanced customer experience and satisfaction, and achievements in payment systems. However, this article cannot quantify the impact of factors such as regulatory frameworks and the regulation of digital transformation activities on commercial banks due to limitations in knowledge and research methods. These limitations remain unresolved and may need to be expanded in future studies.

## **7. Acknowledgments**

The author would like to express sincere gratitude to Van Lang University (VLU) for their financial support in completing our research work.

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978-604 79-3782-0

ISBN: 978-604-79-3782-0

**HO CHI MINH CITY UNIVERSITY OF ECONOMICS AND FINANCE**

141 - 145 Dien Bien Phu, Ward 15, Binh Thanh District, HCM City

Website: [uef.edu.vn](http://uef.edu.vn) - Hotline: (028) 5422 6666 \* (028) 5422 5555