THE SITUATION OF DIGITALIZATION IN THE BANKING INDUSTRY IN VIETNAM

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ABSTRACT:

In the context of the Fourth Industrial Revolution (Industry 4.0), digital transformation has become an essential process in many fields, especially the banking and finance industry. Besides the growth of the Internet, the growth of financial technology and the increasing competition from fintech companies have pushed the digitalization in the banking industry. The finance and banking industry is seen as a pioneer in applying digital technology and the digital transformation has brought improvements and breakthroughs in financial and banking services.

Keywords: digital banking, digital transformation.

1. The situation of using internet for financial management in the world and in Vietnam

1.1. The world

With the development of the 4.0 technology revolution, people's demand for using technology is increasing, which is the basis to help develop the digitalization process of commercial banks globally.

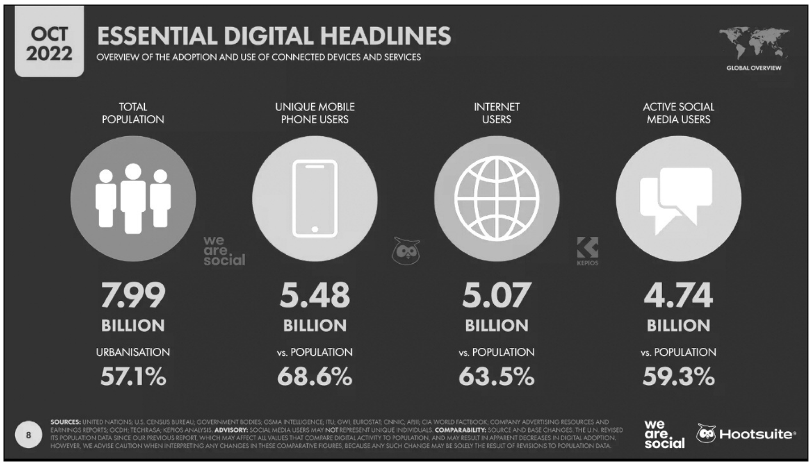
According to a report on global digitization statistics, the current situation of people's technology use is shown in the following figure:

The global population stood at 8.0 billion in 2022 and global mobile users have reached 5.48 billion, with smartphones accounting for almost 4 in 5 of the mobile handsets in use today. The world’s mobile user base has grown by 170 million since this time last year, with 68.6 percent of all the people on Earth now using some form of mobile phone.

Internet users increased by 3.5 percent in the year to October 2022, reaching 5.07 billion as we enter the final quarter of the year. 171 million new users over the past 12 months have taken global internet penetration to 63.5 percent.

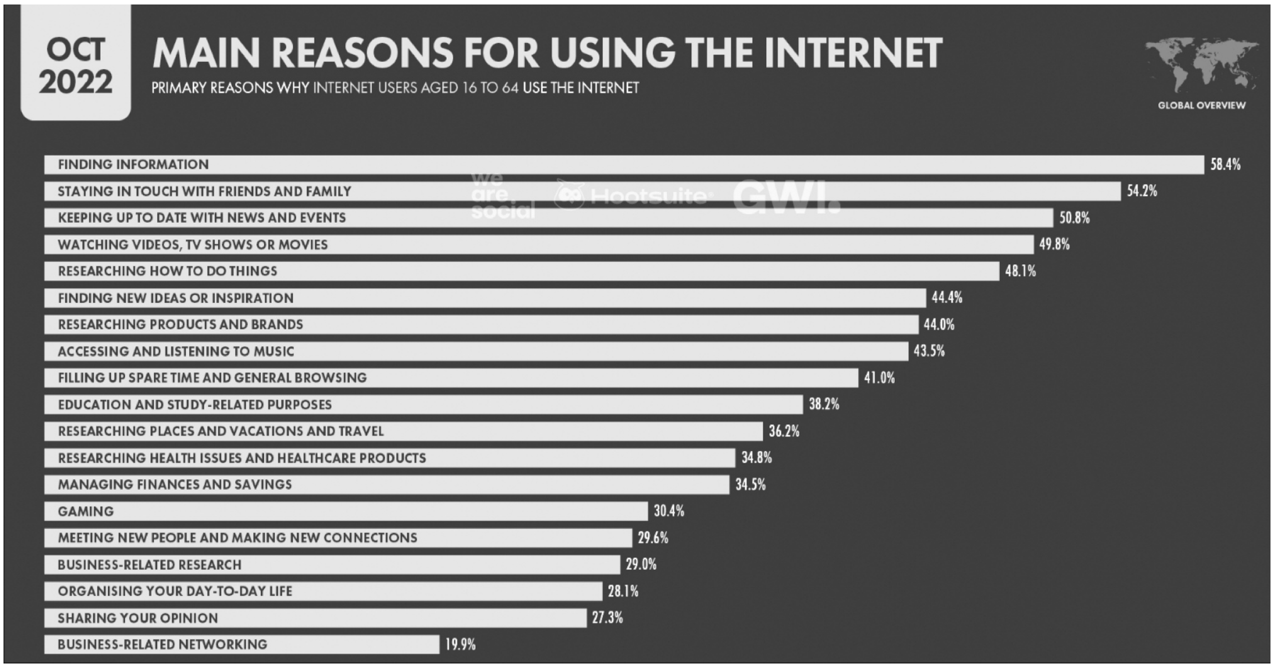
The number of internet users is increasing, especially since they use the internet on mobile phones accounting for 92.1%, this is the basis to promote the development of digitalization globally. They use the internet for many different purposes and in many different fields.

Figure 1: Essential Digital Headlines



Source: Digital-2022-october-global-statshot

Figure 2: Main reasons for using the internet



Source: Digital-2022-october-global-statshot

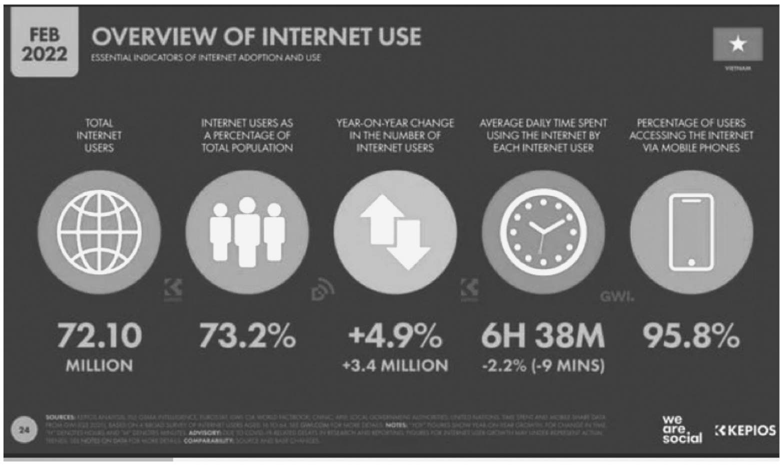
Internet users mainly use it to find information and stay in touch with family and friends and only 34.5% use it to manage finances and saving, this is an opportunity to support digitalization quickly to more users can access the bank's digital services.

1.2. Vietnam

There were 72.10 million internet users in Vietnam in January 2022. Vietnam's internet penetration rate stood at 73.2 percent of the total population at the start of 2022.

In Vietnam, the internet is mainly used to stay in touch with friends and family (71.4%), only 36.5% use the internet for financial management, but with a large number of people using the internet is a good opportunity for digitalization.

Figure 3: Overview of internet use



Source: Digital-2022-october-global-statshot

In addition, the people use mobile connections in Vietnam to manage financial as shown in the following figure:

2. Digitalization in banking industry

2.1. What is digital transformation of banking industry?

Digital transformation in banking is a change in the culture, organization and operating methods of a bank through technology. In the banking industry, digital transformation also means improvements in many service-related areas including:

+ Process automation.

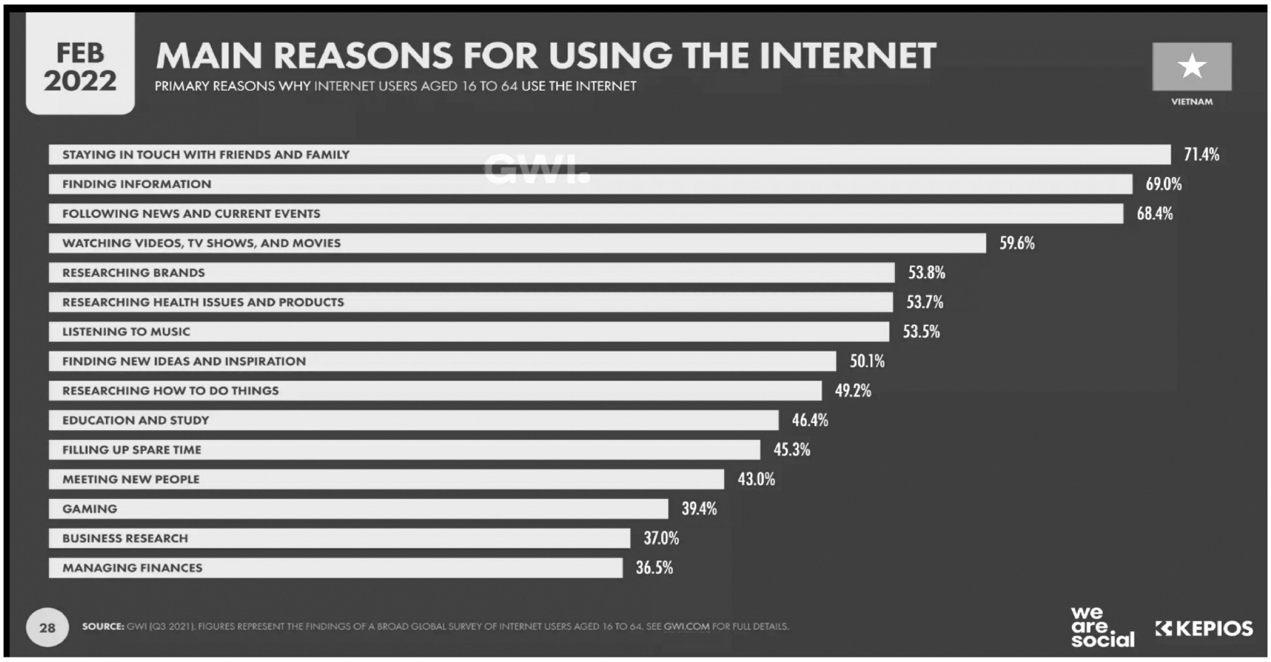
+ Business on digital channels requires fast and automated back-end processing.

Towards automation in many areas: Customer interaction, Operations, risk management, and decision-making.

Innovation & Disruption:

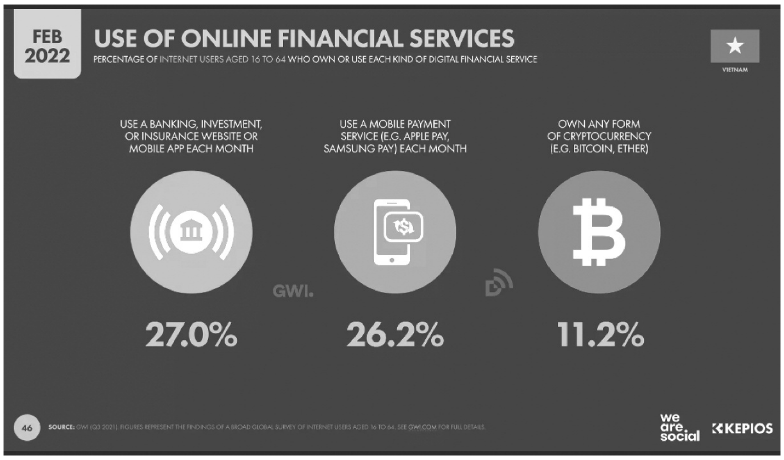
+ Banks must create innovative

Figure 4: Main reasons for using the internet in Vietnam



Source: Digital-2022-october-global-statshot

Figure 5: Use of online financial services in Vietnam



Source: Digital-2022-october-global-statshot

new products, convenient for customers like virtual assistant - voice transactions, contactless payments (QR code, NFC...), e-wallet, money transfer using blockchain technology.

+ Commonly applied technologies such as Big Data, artificial intelligence, Blockchain, Robotics, Internet of things...

Partitioning big data for decision making:

+ Mining data inside the bank and outside the bank to serve the business.

+ Fintech companies can analyze information on users' mobile, social networks, and telecommunications networks to score credit and make lending decisions.

+ Banks can use customer behavior analysis, find the right set of customers to send appropriate promotional messages, increase the chances of cross-selling services, etc.

Improve organizational and sales agility.

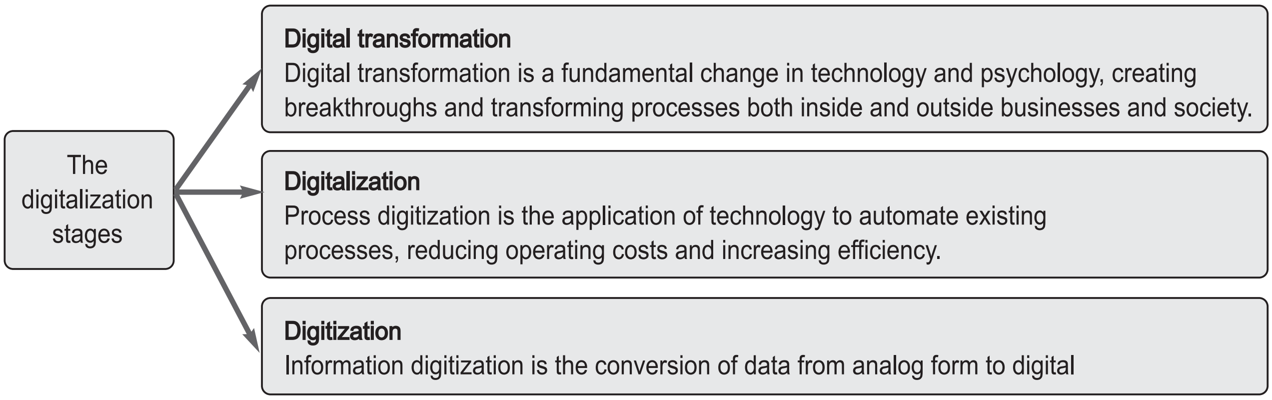
2.2. The digitalization stages in banking

Digital transformation in businesses in general and digital transformation in the banking sector in particular mostly go through 3 stages:

2.3. Must be necessary for digitalization in banking

The Covid -19 pandemic has changed many behaviors of customers, they changed from face-to-face transactions to online and got used to the change of the new situation. Therefore, banking services must also gradually move to a digital platform to meet the needs of users. Moreover, Fintech companies are increasingly developing and diversifying products and services competing with

Figure 6: The digitalization stages



banks. That is a reason for promoting the digitalization transformation of banks.

Changing of the demand users rapidly: The Internet creates many channels for consumers to participate in transactions, interact with banks and conveniently use financial services. Consumer habits tend to shift strongly from "offline" to "online" and non-cash payment. This has prompted banks to change to adapt. The most obvious activity is the widespread deployment of mobile banking, online banking and digital banking to satisfy demand and increase customer experience.

Increasing competitive pressure in the banking industry: Attracting new users and exploiting the hidden needs of customers is the most important goal of every bank. Consumers easily change banks when they have a bad experience, so competitive pressure is increasing among commercial banks.

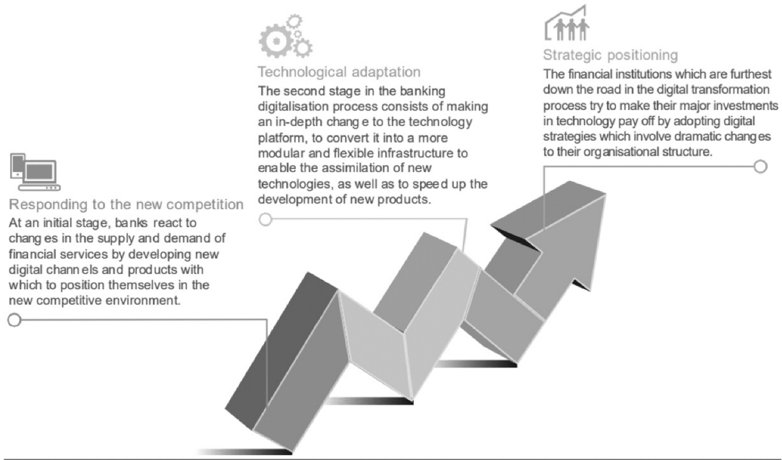
Replacing digital products from financial technology companies - Fintech: Fintech offers new ways to enhance the services that banks provide to users. Mobile applications enable customers to view real-time bank accounts. Artificial intelligence helps security against fraud.

2.4. The process of transformation towards digital banking

Given the profound changes in the demand for financial services, the banks are responding to the digital challenge by using different approaches and at varying speeds, as not all companies understand what it means to transform into a digital bank in the same way.

This digital transformation depends on the set of circumstances with which each institution starts out, although it is evident that there are several phases depending on the level of maturity. In this paper we have boiled the process down to three main phases.

Figure 7: The process of transformation towards digital banking



Source: BBVA Research

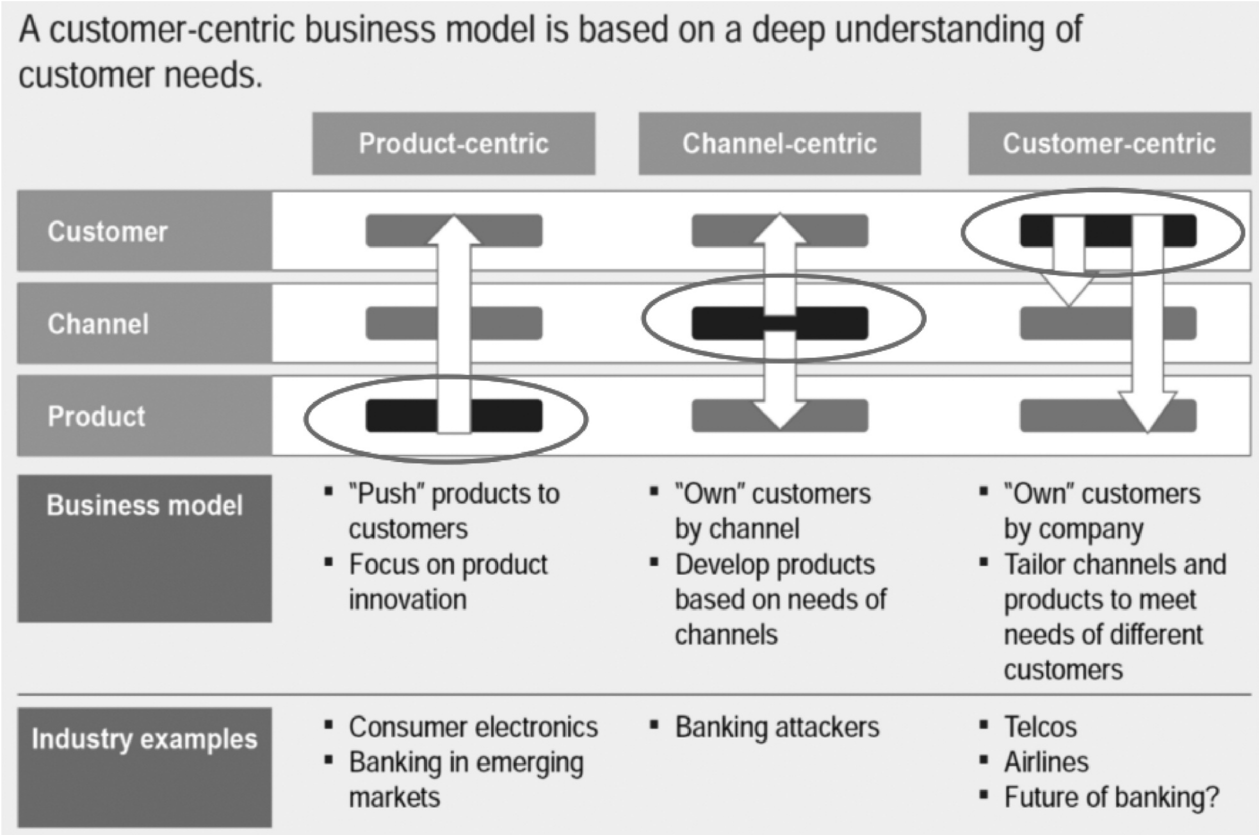
3. Digital banking trend

3.1. The trend of digitization bank on the world

With the increasing demand for banking services customers and the developed user mobile in transactions, commercial banks implement a customer-centric strategy, detailed in the following figure:

Product-centric: Product-centric describes a company focused on the details of its products

Figure 8: A customer-centric business is based on a deep understanding of customer needs.



above other considerations, including its customers' needs.

Channel centric: Idealize the channel, focus only on product development for the new channel. There has been a comment that internet banking channel will replace all traditional branch channels.

- Customer-centric:

❖ Based on the needs of customers to do business, serve multi-channels, and sell fit products on the channels that customers love.

❖ Design and deliver products and services to improve the customer experience.

❖ The policy with customers is designed based on determining the general relationship of the customer with the bank, not evaluating each personal product or service.

❖ Understanding customer needs over time, according to the customer lifecycle to provide the right products.

❖ Listen and respond to customer feedback.

3.2. Digital banking trends in Vietnam

eKYC: In December 2020, the State Bank of Vietnam has just issued Circular No. 16/2020/TT-NHNN, which adds regulations on opening personal payment accounts by electronic method (eKYC). Thereby, eKYC was officially applied from March 5, 2021, with a maximum transaction limit of VND 100 million/month.

Big data: Applying Big Data to banks helps to collect information about customers, predict future behaviors and make real-time decisions based on real-time data.

International Bank (VIB) officially announced as the first bank to successfully apply Big Data & AI to bring a completely online application signal card opening experience in less than 30 minutes.

OMNI - CHANEL:

+ The development of banking applications on the Omni-Channel platform (multi-channel) helps customers control and perform financial transactions in the most effective way, and at the same time, it also helps customers to perform transactions at different locations. one channel, continue on another and finish on another. This will help customers to comfortably transact in whichever channel is most convenient for them.

+ Currently, a number of banks have launched applications on the Omni platform: OCB Omni (OCB), SeAMobile (SeABank), VCB Digibank (Vietcombank), etc. Unify mobile and web channels with many new features such as personal financial health care, bill reminder, etc.

OPEN AI: In Vietnam, there have been a number of banks that have picked up on this trend by establishing the first foundations for their Open API platform, which is a platform for sharing data and building a product ecosystem. products and services between the bank and its partners. Some banks have been ahead of this trend such as Vietinbank which was the first bank in Vietnam to test the Open API platform on the iConnect platform since 2018, and cooperation opportunities between OCB and Fintech companies, domestic and foreign startups on Open Banking.

3.3. Suggested Solutions to develop digital transformation in banking

- *Widespread application of Blockchain technology and digital currency:* Blockchain has been gaining focus in research and development for diverse industries in recent years. It takes you under 1 second to complete all steps of transactions. So customers can make transactions faster, cheaper, and with higher security than current financial services.

- *Application of artificial intelligence (AI):* AI enables identification of transaction anomalies, minimizing the risk of fraud and money laundering. By analyzing past market data, AI helps financial institutions make faster and smarter decisions.

- *Application of biometric technology:* Biometric technology may be defined as the automated use of physiological or behavioral characteristics to determine or verify an individual's identity. The word biometric also refers to any human physiological or behavioral characteristic which possesses the requisite biometric properties.

As the level of security breaches and transaction fraud increases, the need for highly secure identification and personal verification information systems is becoming extremely important especially in the banking and finance sector. Biometric technology appeals to many banking organizations as a near-perfect solution to such security threats. Though biometric technology has gained traction in areas like healthcare and criminology, its application in banking security is still in its infancy. Due to the close association of biometrics to human, physical and behavioral aspects, such technologies pose a multitude of social, ethical, and managerial challenges.

- *Big data application (Big Data):* Applications of big data and data science help financial institutions collect all the data about their customers over the long term and exploit this information in the most efficient way. The analysis of data also allows us to understand and predict the needs of each individual customer, organization.

- *Development of security technologies:* Due to the popularity of the internet, the issue of cybersecurity and privacy protection is one of the important issues in the next decade as attacks and intrusions become increasingly sophisticated and diverse ■

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THỰC TRẠNG QUÁ TRÌNH SỐ HOÁ CỦA NGÀNH NGÂN HÀNG TẠI VIỆT NAM

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TÓM TẮT:

Trong bối cảnh cuộc Cách mạng Công nghiệp lần thứ tư (Công nghiệp 4.0), số hoá trở thành điều quan trọng đối với rất nhiều lĩnh vực, đặc biệt là lĩnh vực tài chính và ngân hàng. Cùng với sự phát triển của mạng internet, sự phát triển của các công nghệ tài chính và sự cạnh tranh ngày càng tăng đến từ các công ty công nghệ tài chính (fintech) đã và đang thúc đẩy quá trình số hoá trong lĩnh vực ngân hàng. Lĩnh vực tài chính và ngân hàng được xem là lĩnh vực tiên phong trong việc ứng dụng các công nghệ kỹ thuật số. Quá trình chuyển đổi số đã đem đến những cải tiến và đột phá trong việc cung cấp các dịch vụ tài chính và ngân hàng.

Từ khoá: ngân hàng số, chuyển đổi số.