



Digital transformation of businesses in Vietnam - Opportunities, benefits - Difficulties and challenges

Le Hoang Nhu Nguyen, Nguyen Tran Huyen Tran, Bui Thi Thuy Hang

Faculty of Economic Law, University of Finance and Accountancy, Vietnam

Abstract

In the 4th revolution, digital transformation is becoming an important development trend for modern businesses. Digital transformation in businesses is understood as the integration and application of digital technology to improve business efficiency, management efficiency, enhance the capacity and competitiveness of businesses and create new values. This paper aims to evaluate and analyze opportunities and challenges for business activities of Vietnamese businesses in the context of digital transformation. Based on these analysis, recommendations are made to enhance the operational efficiency of businesses in the coming time.

Keywords: Digital transformation, business, industrial revolution

Introduction

In recent years, the rapid technological development along with the process of strong international economic integration, most notably, the outbreak of the Covid-19 pandemic worldwide have posed many requirements for businesses to innovate in order to improve competitiveness. Digital transformation has strongly impacted all aspects of social life. When combined with the application of the results of the 4.0 Industrial Revolution, it has created many great changes in industry, business, transportation, operation and power production. Our country is a developing country with quick and flexible access to technology, so businesses have the opportunity to catch up with the overall trend of the world economy. Therefore, implementing the digital transformation is no longer a vision or long-term goal, but it has become a reality that requires businesses to participate in order to develop and avoid falling behind. This will help businesses have better resistance and stand firm in the market. The paper analyzes the strengths and weaknesses of digital transformation, and identifies opportunities and challenges in the digital transformation process, thereby providing suggestions to improve the application of information technology (IT) and promote the digital transformation in the coming time.

Theoretical basis of digital transformation

1. Concepts and stages of digital transformation

The concept of "Digital Transformation" has been widely used in the media recently. Each person can understand digital transformation in their own way, because it is a new concept. However, the basis of digital transformation is the process of digitalization combined with the application of the achievements of the 4.0 Scientific and Industrial Revolution (Industrial Revolution 4.0) into practice, which has created many strong changes in life.

According to Gartner (Prentice 2017): Digital business transformation is an effort to create connected platforms and new industrial revenue streams. This is a digital journey that involves pursuing new revenue streams, products/services and business models. It is favored by businesses that have to adapt to a disrupted industry, or those that want to disrupt their industry.

According to FPT Joint Stock Company, digital transformation in organizations and businesses is the process of changing from traditional models to digital businesses by adopting new technologies such as big data, Internet of Things, cloud computing, changing the operating methods, leadership, work processes, and company culture.

For Vietnam, digital transformation is the process of changing old, traditional models into digital businesses, based on new technology applications, such as: Big data, IoT, cloud computing, to change the operating methods, work processes and labor culture in businesses. Thus, for a short and easy-to-understand definition, digital transformation is the integration of digital technologies into all areas of a business, taking advantage of technologies to fundamentally change the way a business operates, its business model, and provide new values to its customers as well as speed up business activities. Digital transformation is also a change in the culture of businesses. It requires businesses to constantly change, test new things and comfortably accept failures.

2. Benefits of digital transformation in businesses

Digital transformation brings great benefits to businesses. When applying digital transformation, *it will narrow the gap between departments in the business*, creating information links among departments in the business. They are connected to a unified technology system platform. Each department has its own software to serve professional operations and can communicate with other departments through the internal communication system. This will help problems to be resolved as soon as they occur, such as delays in customer service or decreased sales volume, thereby helping businesses operate without unexplained blockages which cause negative impacts on businesses.

Businesses participating in the digital transformation process will be able to proactively and easily access reports on business activities to *increase transparency and efficiency in the management system*. All business activities such as employees recording sales, personnel changes, customers learning about products, will be shown on business management software. This will help reduce

delays, help the CEO manage the business more effectively and transparently than before.

Digital transformation will help businesses maximize the working capacity of their employees because the system can perform low-value-added jobs automatically, and businesses do not need to spend money on paying salaries to employees. As a result, employees have more time to improve their expertise and perform other important tasks. Digital transformation also helps managers easily evaluate the work quality of each employee through the reporting data received at the end of the day, weekend, month or quarter.

If a business owns a digital platform, it will be able to deploy and operate the business effectively, accurately, because digital management and operations solutions will increase efficiency and accuracy in business decisions. At the same time, digital transformation also helps businesses improve their ability to compete with other businesses in quickly interacting with customers, policies of customer care and service.

SWOT analysis of businesses in digital transformation

1. Strengths of the business in digital transformation

The current strength of small and medium-sized enterprises (SMEs) in digital transformation lies in the ability of all business leaders to be early aware of transformation trends and appreciate the importance of digital transformation. Besides, due to the flexible organizational structure, SMEs can easily adapt and respond quickly to market changes. The achievements of digital transformation in the market such as diverse marketing, distribution and sales channels are also applied effectively. The ability to apply digital technology to quickly connect information with customers and suppliers to not slow down production progress and optimize the working process. The ability to apply software to basic management operations is met by most SMEs. Applying digital transformation to businesses to narrow or widen the gap with competitors. Focusing on technology and clearly show customers the strengths of the business. Cutting unnecessary costs helps businesses easily save costs and invest in other business areas.

2. Weaknesses of the business in digital transformation

Our country is currently a developing country, so investment sources are limited. Besides, there are still factors such as internal management capacity, incomplete organizational structure and non-standardized processes of SMEs, thus making digital transformation not comprehensive. The capacity of IT-related personnel or the ability to integrate new technology in the IT system still has many inadequacies, easily leading to failure and imbalance in the system. Vietnam's resources for digital skills are very weak, not only in human resources but also in the low rate of businesses using information and communications technology (ICT). Therefore, to apply digital transformation, it takes much time to train high-quality personnel who have both professional skills and the willingness to learn. Additionally, the importance of data is still not properly recognized when only a few businesses have separate management policies and apply data analysis in their activities. Moreover, cyber security and risk issues have not been properly recognized and managed by businesses even though this is one of the extremely

important factors in the IT system of any developed business.

3. Opportunities of the business in digital transformation

Timely grasping the digital transformation process will bring many opportunities for businesses such as

Firstly, improve the efficiency of production and business activities of businesses.

With the help of ICT, the foundation of digital transformation will increase the competitiveness of businesses, thereby allowing companies to easily provide customers with a global presence. The Internet tends to be profitable for both large and small companies. Through their websites, small companies can also achieve the same revenue as a large company, which would seem unimaginable in a traditional commercial environment. If considered from another aspect, when conducting digital transformation, businesses can respond very quickly to customer requests, can provide consulting services and product information on how to use the product for customers.

Digital transformation also helps businesses optimize processes, streamline workflows, digital processes and automated tasks are all ways organizations can create efficiency and especially during the global COVID-19 period.

Second, expand the market and strengthen cooperation between companies.

With the application of advanced technology techniques, businesses have built optimal and effective operating models to expand the market. The digital business model allows businesses to reach more customers, even customers in remote areas which are far away from where the business operates, while increasing the operating productivity and controlling costs well.

Promote competition as well as attract companies providing technology solutions to cooperate with businesses, to offer increasingly convenient products to customers, thereby maximizing business profits like many businesses have integrated payment functions on software such as linking with Momo wallet to help the payment process quickly and reduce costs.

Digital transformation facilitates the establishment and strengthening of relationships between partners participating in the trade process, because businesses can communicate directly and continuously with each other via the Internet. As a result, both cooperation and management are carried out quickly and continuously. New customers and new business opportunities are quickly connected nationally and internationally, and businesses have more opportunities to choose from.

Thirdly, help businesses redirect production and business activities based on digital platforms.

Digital transformation helps businesses develop and diversify creative breakthrough products to expand business models that are more suitable for current modern technology era. Products and services that integrate many functions will meet customers' diverse needs. In Vietnam, recent reality shows the strong development of financial services: Mobile Banking, Mobile Commerce, E-Commerce and service industries have been keeping up with the 4.0 Industrial Revolution Infrastructure for digital transformation is also increasingly being improved with efforts from the Government, businesses and people.

4. Challenges of the business in digital transformation

Besides opportunities, businesses also face challenges brought by the digital transformation context such as *First*, the capacity and resources of Vietnamese businesses are still limited.

Human resources in digital technology, especially information and communication technology, is an issue that many businesses focus on but is still a challenge for Vietnamese businesses. Digital transformation requires employees with the knowledge, skills and techniques to use and take full advantage of new technologies. This requires businesses to invest in training and developing human resource, while ensuring that employees are able to adapt to the constant change in the digital environment. To develop digital transformation, we need a team of experts and good human resources. However, in reality, digital transformation human resources are still lacking, from managers to experts, engineers, and digital technology workers while Vietnam has many educational institutions in training IT workers.

Digital transformation requires significant financial investments to deploy technical infrastructure, purchase new technology, and train employees. This can be a challenge for SMEs because they often have limited resources. According to the 2021 Business Digital Transformation Report of the Ministry of Planning and Investment, up to 60.1% of businesses participating in the survey said the barriers they encountered when applying digital technology were due to high costs in technology investment and application, affecting the cost of investment, deployment, and maintenance of solutions for digital transformation. To develop the digital economy, it requires a solid infrastructure, strong transmission lines and mobile network, while many rural and remote areas still have not had a network. The current gap between rural and urban areas in Vietnam still has been too large.

Second, businesses' awareness of digital transformation still has been weak.

The application of technology, especially ICT, in business management activities still has had many limitations. Many business owners are not fully aware of the role of technology in business management in the context of a digital economy with increasingly competitive pressures.

One of the main difficulties of digital transformation is changing the organizational culture. This requires a change in employees' traditional thinking and ways of working. Resistance and tolerance to change can slow down digital transformation progress. In addition, according to a survey by the Ministry of Planning and Investment in 2022, many difficulties in changing business habits and practices of businesses are also barriers that businesses encounter, accounting for 52.3% of surveyed businesses. Digital transformation will change the habits and way of working of workers. Some businesses have applied software but employees and workers have not applied it, or only partially applied it. Consequently, the businesses' digital transformation goals are not achieved.

Third, there are still many concerns about applying information technology and communication to business activities.

The explosion of the digital economy also puts Vietnamese businesses before many challenges, including legal issues and user information security. As businesses transform into a digital environment, data security and privacy become an important issue. Cyber security threats and external attacks

can seriously damage business' operations and reputation. Issues of safety, network security, data, personal data and personal privacy in cyberspace are threatened.

Fourth, the legal system regulating this area is still overlapping and incomplete.

The legal system has been lacking, has not kept pace with the strong development of information technology and communications, or has been overlapping, leading to low effectiveness and efficiency. That affects the determination of businesses to transition to the digital economy in general and business management activities in particular.

Suggestions and recommendations

Based on the opportunities and challenges mentioned above, the article proposes solutions to promote the operational efficiency of Vietnamese businesses:

First, businesses need solutions to develop digital technology infrastructure, in which preparing plans to deploy 5G services is urgent to ensure the need for information exchange and network security. On the basis of ensuring inheritance, taking advantage of achievements, in accordance with planning strategies and plans in areas, it is necessary to accelerate information infrastructure development, promote IT application in managing, exploiting and operating the infrastructure system of the entire economy. In particular, for key economic regions, the State will soon have a mechanism to promote digital economic development to contribute to the development of high-tech industries, bringing great added value.

Second, educational institutions need to focus on reforming the technical and vocational training system for workers such as: adding more IT technical modules associated with new technology trends such as: artificial intelligence, robotics technology, Internet of Things in addition to formal learning programs. At the same time, there needs to be a connection between educational institutions and businesses. Learners need to be equipped with knowledge at educational institutions, and businesses will be the place for practical experience. On the other hand, businesses themselves also need solutions such as training and retraining employees to ensure that staff are qualified to operate the system and master technology.

Third, changing the awareness of businesses about digital transformation. The Government needs to promote the widespread use of Vietnamese digital platforms to help people and businesses directly benefit from the convenience of digital transformation: Popularizing the use of e-commerce platforms for people, agricultural production households, and individual business households; Popularizing the use of online teaching platforms; Popularizing use of digital platforms to support personal health consultation; Popularizing the use of other digital platforms to serve the essential needs of the people such as communication and entertainment, tourism; Popularizing the use of online public services.

Fourth, actively monitoring network security to ensure customer safety when using electronic services such as: using high and advanced industrial automation technology to analyze data; Increasing the security of information and data of individuals, businesses, and organizations on IoT platforms, and promote the establishment of cooperation and coordination between agencies and departments in ensuring network information security and safety.

From the solutions, the paper offers some recommendations for businesses to successfully digitally transform and develop sustainably in the coming time.

Regarding the State

First, the State continues to build and perfect the legal framework and necessary environment to meet the requirements of the digital economy to promote digital transformation and support business development. State management agencies need to create an environment, strengthen popularizing, and promote support for businesses in digital transformation. Vietnam needs to focus on building foundations and institutions for digital economic business models, including amending and supplementing legal regulations for industries with many new business models such as e-commerce, digital finance, digital banking. Institutional reform to attract investment in digital technologies in investment fields in the direction of creating maximum convenience for capital contribution, share purchases, mergers and acquisitions of digital technology business.

On the other hand, to facilitate digital transformation, in the coming time, it is necessary to continue to develop digital infrastructure to meet the requirements of applications, especially the early official deployment of 5G mobile network. The Government needs to focus on building and developing digital infrastructure to meet information exchange requirements, using advanced technologies to ensure information safety and security. Central and local state management agencies must be connected to the Government's wide-area network and broadband Internet so that they are capable of providing public services and socio-economic development goals, gradually build e-government. Moreover, it is necessary to form and coordinate a network of digital transformation consultants for businesses, support digital transformation training, and digital transformation consulting for businesses. The State has policies to support businesses in improving the quality of human resources. Encourage organizations and individuals to invest in many training facilities and enhance types of training for experts, technicians, vocational training, and 3-party training models (businesses - institutes, schools - state management agencies). It can be seen that the training of human resources to form a team specializing in e-commerce, network security, information technology, communications to prepare for the digital transformation process is a key factor in deciding the success of the digital economy.

At the same time, support the application of digital transformation technology solutions for production and business establishments through creating the support packages, including technology solution instructions for different target groups divided by size, business development stage and by field and industry.

Regarding the business

Firstly, come up with ideas and have a truly attractive digital strategy, align digital transformation with business goals. Businesses need to identify ideas, goals and firmly grasp the basics of digital transformation, determine the focus and target audience that the business is aiming for. Once businesses have an idea and a digital transformation strategy, it is important to approach and organize it for a successful transformation. After that, there needs to be a specific roadmap from planning and implementation in each

stage, both in terms of technology and human resources, to suit the current situation of businesses. This helps guide appropriate decisions on investment and technology development, and have the appropriate training and development of human resources. Digital transformation does not only rely on information technology, but must also be consistent with the vision, mission, goals and values of the organization.

In addition to being aware of the importance of digital transformation and business management using digital technology, there must also be deep determination and implementation to ensure that the entire business's management apparatus operates well in order to achieve the sustainable development goals of businesses. Proactively transform business management in the context of digital transformation. Vietnamese businesses need to determine that in the context of digital transformation and the 4.0 industrial revolution taking place strongly, if businesses do not transform themselves to keep up with the trend, they will fall behind and be eliminated from an increasingly fierce competitive environment.

Second, businesses need to focus on investing in technology and applying digital technology to gradually connect the existing systems into an information system throughout from business to management operations in the business; Build a common database across the entire business; Invest in research and development to create changes in products and services and continuously upgrade current systems; Apply new digital technology to ensure information security and network security for data of the entire business. In addition, businesses need to invest in technical infrastructure to support digital transformation. This includes implementing new server systems, networks, software and technology tools to suit business needs.

Thirdly, train the business's human resources team in skills and professional knowledge related to digital transformation. Digital transformation requires the workforce and leaders of businesses to adapt and operate according to the new model. Acquiring professional knowledge and skills will be effective when implementing digital transformation. Therefore, businesses need to train and equip employees with necessary skills, creative capacity and the ability to quickly adapt to a constantly changing technological environment. To succeed in digital transformation, businesses need to build and maintain a team of employees with technical knowledge and skills. This could include training and developing existing staff or recruiting new staff with digital capabilities.

Although technology platforms for digital transformation are becoming increasingly popular, choosing the right platform for the scale and resources of the business is not easy. It is necessary to ensure that the following criteria are met: optimization, modernity, keeping up with trends and having features that truly suit the specifics of the business, meeting actual requirements during operation. Furthermore, businesses need to pay attention to security policies and tools to protect business secrets, customer information and prevent risks in business operations.

It can be seen that digital transformation in businesses brings many opportunities and benefits, but also comes with many difficulties and challenges. To succeed, businesses need leaders' determination, defining clear goals and implementing appropriate strategies. The digital transformation process is a continuous journey and requires

flexibility and adaptation to changes in the digital environment./.

References

1. Le Van Son. Opportunities and challenges for businesses in digital transformation, Finance Journal, 1st edition, 2022.
2. Do Van Vien. Digital transformation - A sustainable direction for businesses in the 4.0 Industrial Revolution, Journal of Economics and Forecasting, 2021, 17.
3. Tran T Hanh Nguyen, Nguyen Trieu Phuong Nam, Nguyen T Thu Hang, Vuong Hong Nhien. Digital transformation businesses in Vietnam: Current situation and solutions, Journal of Economics and Forecasting, 2021, 31.
4. Pham Huy Giao. Digital transformation: Nature, practice and application, Petrovietnam Journal, 2020:12:12-16.
5. Vu Thi Van, Vu Hai Thuy. Current state of startup business operations and some recommendations, accessed from, 2020. <https://tapchitaichinh.vn/tai-chinh-kinh-doanh/thuc-trang-hoat-dong-cua-doanh-nghiep-khoi-nghiep-va-mot-so-kien-nghi-329826.html>
6. VCCI and VNPT. Digital transformation: Solutions to help businesses overcome the Covid-19 pandemic and develop, Information and Communications Publishing House, 2020.
7. Cameron A, Pham T, Atherton J, Nguyen D, Nguyen T, Tran S. and the authors. Vietnam's future digital economy—Towards 2030 and 2045, Brisbane: Commonwealth Scientific and Industrial Research Organisation, 2019.
8. Vial G. Understanding digital transformation: A review and a research agenda, The journal of strategic information systems, 2019:28(2):118-144.
9. MA. Le Hoang Nhu Nguyen - Faculty of Economic Law - University of Finance and Accountancy Email: lehoangnhunguyen@tckt.edu.vn TEL: 0987669887
10. MA. Nguyen Tran Huyen Tran - Faculty of Economic Law - University of Finance and Accountancy Email: nguyentranhuyentran@tckt.edu.vn
11. MA. Bui Thi Thuy Hang - Faculty of Economic Law - University of Finance and Accountancy__Email: buihithuyhang@tckt.edu.vn