



Received: 21-09-2023
Accepted: 01-11-2023

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Digital Transformation in Vietnamese Small and Medium Enterprises

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Abstract

Digital transformation is now an inevitable requirement for enterprises to minimize negative impacts and implement sustainable business development in the digital era. In the current context of deep international integration, digital transformation is considered an inevitable trend and a vital issue for countries, organizations, businesses and individuals around the world, as well as Vietnam is no exception to that trend. Tremendous changes in labor productivity, user experience and new business models across all industries and fields have shown the enormous role and impact of digital transformation in the economy and society festival. However, digital transformation in the business community still needs to improve. The awareness and investment

activities in this field are still different, causing the digital transformation to face many barriers. To analyze and evaluate the digital transformation process in small and medium-sized enterprises in Vietnam, this article will focus on researching and synthesizing documents and research works at home and abroad; Information and data reports related to digital transformation activities at small and medium-sized enterprises in Vietnam today. From there, we provide some proposals and recommendations to carry out the digital transformation in the most convenient manner for small and medium-sized enterprises in Vietnam in the future.

Keywords: Digital Transformation, Small and Medium Enterprises, Industry 4.0

1. Introduction

The 4.0 industrial revolution marks huge changes in business activities. These changes incorporate the use of the internet and other disruptive technologies in all walks of life. In fact, the use of digital technology leads to the availability of information about production and business processes. In the current context of deep international integration, digital transformation is considered an inevitable trend and a matter of survival for countries, organizations, businesses and individuals around the world. Tremendous changes in labor productivity, user experience and new business models across all industries and fields such as education, industry, agriculture, commerce and business services, has shown the great role and impact of digital transformation in the economy and society. In particular, in the recent period, the 4.0 industrial revolution and the Covid-19 pandemic have demonstrated the important impacts of digital transformation on socio-economic activities in general and on the activities of organizations, Enterprises in particular. For businesses, digital transformation increases the speed of market access, strengthens competitive position in the market, increases labor productivity, expands the ability to attract and retain customers, and promotes revenue growth. With many benefits such as cutting operating costs; reach the maximum source of potential customers in the same time period; Support business leaders to make faster and more accurate decisions through suggestion systems, automatic report synthesis. Digital transformation is gradually becoming a trend in business operations.

In Vietnam today, digital transformation is considered a national goal and strategy for developing digital technology enterprises and the digital economy. Our State promotes equality, regardless of state-owned enterprises and private enterprises, in encouraging, promoting and supporting businesses to implement digital transformation to improve production and business efficiency and improve efficiency. High competitiveness, capable of participating in the process of international economic integration.

In that context, digital transformation in small and medium-sized enterprises (SMEs) is an inevitable issue of top concern, but also poses many problems for Vietnamese businesses. The article will focus on researching and synthesizing documents and research works at home and abroad; Information and data reports related to digital transformation activities at small and

medium-sized enterprises in Vietnam today. From there, we propose a number of recommendations to enhance the digital transformation process for small and medium-sized enterprises in Vietnam in the future.

2. Theoretical Basis

2.1 Concept

Digital Transformation is a concept that has been mentioned frequently recently. However, it is difficult to define exactly what business digital transformation is, because there are currently many different approaches to this concept.

According to Vial, Gregory (2019) digital transformation is "a process that aims to improve an entity by making significant changes to its attributes through the combination of information technology (IT), computing, communications and connectivity".

According to Gartner-a global research and consulting company, "Digital transformation is the use of digital technologies to change business models, creating new opportunities, revenue and value."

According to Microsoft: "Digital transformation is the application of technologies to completely change traditional processes, products and services into highly connected, data-based solutions to increase efficiency. and create completely new business models"

In Vietnam, the concept of "digital transformation" in businesses is often understood as the process of changing from a traditional model to a digital business by applying new technology such as big data (Big Data), artificial intelligence (AI), Internet of Things (IoT), cloud computing (Cloud). to change operating methods, leadership, work processes, and corporate culture.

Above, it can be easily seen that there are many different concepts and definitions of digital transformation, but the concepts and definitions are all consistent in one aspect: digital transformation is the integration of technologies. digital into all areas of a business, leveraging technology to optimize their current processes and increase customer experience to stay competitive and relevant in the new customer-centric economy row is the center. However, digital transformation is not simply installing a new software, or switching to cloud computing, but the core of digital transformation is transforming the business model, which requires a transformation in strategy. Business strategy incorporates all business-related requirements.

2.2 Benefits of Digital Transformation

In the trend of the 4.0 Industrial Revolution, Vietnamese businesses are trying to implement digital transformation through many strategic partnerships with leading businesses and corporations in national digital transformation. The current context requires businesses, especially SMEs, to quickly adapt to seize opportunities and overcome challenges for successful digital transformation. Digital transformation brings many opportunities for Vietnamese businesses, including:

- *Improve Business Efficiency*

Implementing the digital transformation process in businesses, business leaders will proactively and easily monitor reports and evaluate business activities. Automating processes thanks to digital transformation brings overall efficiency to businesses, improves output products, reduces defective products, and reduces incidents in the production

process, leading to improved productivity for businesses. thereby improving efficiency. All business activities such as personnel changes, employee performance, customer product inquiries, etc. will be displayed on business management software. Thanks to that, all information about operational data is presented clearly, transparently, accurately and quickly. These data will help leaders a lot in the process of making decisions and planning management strategies. Technologies such as: AI and Machine Learning can process data quickly thereby making it possible to provide more efficient services to customers.

- *Improve Work Productivity*

Digital transformation helps businesses improve and maximize employee productivity by minimizing manual, time-consuming work. Digital transformation involves using machines and software to perform functions that humans currently perform, thereby helping businesses automate steps in the operating process, minimizing costly manual work. more time, cutting labor costs, creating a favorable working environment for employees and enhancing the provision of convenient utility services for customers. This allows businesses to deploy and allocate resources in a more efficient way. Effective connection between businesses, suppliers and regulatory agencies: By implementing digital transformation, businesses can build a technical bridge between businesses, supply chains and distributors. Customize products to suit market needs and trends. Helps business managers effectively manage input materials and output finished products effectively. This helps employees have more time to focus on other more important tasks. When businesses apply smart technology solutions to their business operations, it will lead to increased productivity.

- *Increase Revenue*

Reducing business operating costs and maintaining production and business activities by automating processes and customer experience will invisibly increase business revenue. Making business services more convenient and flexible means attracting customer attention and bringing in higher profits.

Digital transformation is being implemented with businesses around the world. Digital transformation cannot be fully achieved immediately or within a few years. However, Vietnamese businesses need to take advantage of digital transformation in the 4.0 Industrial Revolution to improve competitiveness and make the most of the opportunities that digital transformation brings.

3. Digital Transformation in Small and Medium Enterprises in Vietnam

Currently, to promote digital transformation for businesses, Vietnam is gradually building and applying a system of policies consistent with digital transformation trends in businesses.

Vietnam has built an important strategic vision. By 2045, Vietnam will become a developed industrial country. The Government and agencies will issue documents to implement the following goals:

Regarding strengthening capacity to access the Fourth Industrial Revolution: Directive No. 16/CT-TTg.

Regarding orientation for building national industrial development policy to 2030, vision to 2045: Resolution No. 23-NQ/TW.

Approval of the National Program to support businesses in improving productivity and quality of products and goods in the period 2021-2030: Decision No. 1322/QĐ-TTg.

The Ministry of Information and Communications has approved the Project to determine the Index to evaluate the level of digital transformation of enterprises and support the promotion of digital transformation of enterprises. Accordingly, the level of digital transformation of businesses is divided into 6 levels.

Level 0- No digital transformation: The enterprise has almost no activities or has but insignificant digital transformation activities;

Level 1- Launch: The enterprise has had some activities at the launch level of the enterprise's digital transformation;

Level 2- Beginning: Enterprises are aware of the importance of digital transformation according to the pillars and begin to have business digital transformation activities in each pillar of digital transformation. Digital transformation begins to bring benefits in business operations as well as customer experience;

Level 3- Formation: Enterprise digital transformation has basically been formed according to pillars in departments, bringing practical benefits and efficiency to business operations as well as customer experience. Enterprises that achieve level 3 digital transformation begin to form digital enterprises;

Level 4- Advanced: Enterprise digital transformation is one step advanced. Digital platforms, digital technology, and digital data help optimize many businesses' production and business activities and customer experience. Enterprises that achieve level 4 digital transformation basically become digital enterprises with a number of main business models based on digital platforms and digital data;

Level 5- Leading: Enterprise digital transformation has reached a level of perfection, enterprises have truly become digital enterprises with most business methods and business models mainly based on and led by digital platforms and digital data. Enterprises have the ability to lead digital transformation and create a satellite digital business ecosystem.

Therefore, digital transformation-one of the achievements of the 4.0 Industrial Revolution, has been changing the competitiveness of corporations, companies, and large enterprises around the world. Vietnamese businesses are also gradually participating in the digital transformation process, which is an inevitable requirement to develop current businesses.

Vietnam has about 870,000 businesses, of which SMEs account for more than 98%. Recognizing the important role of the SMEs sector, the Ministry of Information and Communications has implemented the Program to support SMEs in digital transformation from January 29, 2021 (SMEdx), aiming to accelerate digital transformation in SMEs, through the use of digital platforms selected by the program, help businesses optimize operations. Therefore, Vietnamese SMEs are receiving great support and companionship from the Government, Vietnam Association of Small and Medium Enterprises, and relevant agencies and sectors in implementing digital transformation with other agencies. Support mechanisms and policies to meet the urgent needs of SMEs such as:

- Regarding cutting fees and costs for businesses: Resolution No. 75/NQ-CP.
- Regarding improving the business environment and

enhancing national competitiveness: Resolution No. 19/NQ-CP.

- Approval of the "National digital transformation program to 2025, orientation to 2030" has become a guideline for organizations, individuals, and businesses participating in the digital transformation process: Decision No. 749 /QĐ-TTg.

Therefore, in order to develop and improve competitiveness and business position, not only large enterprises quickly implement digital transformation, but small and medium enterprises must also participate in the digital transformation race. From there, it helps change modern business models, creates a favorable business environment while supporting SMEs to develop through capital and technology support programs. So that SMEs can quickly and boldly enter implementation. Digital transformation, contributing to the national digital transformation goal.

According to statistics from the Ministry of Industry and Trade, the country has over 870,000 SMEs, accounting for 97.6% of the total number of Vietnamese enterprises. Of which, 2.1% are medium enterprises, 28.9% small enterprises, 66.6% micro enterprises. Although the current scale of operations of SMEs is still small, SMEs have great contributions to Vietnam's economy, specifically:

Firstly, SMEs create jobs. SMEs create about 60% of jobs for workers. As society is increasingly developing, the need for jobs to generate income is increasing, SMEs are established and make a great contribution, that is, meeting the employment needs of workers, contributing to reduce unemployment rate in Vietnam.

Secondly, for state budget revenue, SMEs contribute 30% and about 50% of gross domestic product (GDP).

Thirdly, SMEs today provide many rich and diverse products to the market in all areas of life, meeting all consumer needs, thereby promoting the consumption power of the economy international.

Moreover, in rural areas, the existence and development of SMEs promotes the process of rural modernization, in addition, promotes the development of trade and service industries in developed rural areas, contributes greatly to narrowing the development gap between rural and urban areas.

The digital transformation process of SMEs in recent years, according to a survey by CISCO Technology Company, the proportion of SMEs that react slowly and passively to changes in the business environment accounts for about 70%, the proportion of SMEs using old equipment, machinery and technology from the 80s - 90s about 80%; 22.7% of SMEs still lack digital skills and human resources; 21.6% lack a strong enough information technology platform to enable digital transformation; 20% of businesses still lack digital thinking... These are barriers that make it difficult for SMEs to digitally transform. Besides, the majority of SMEs have incorrect views on digital transformation, still retain the management and operation mindset from the past, or do not have appropriate digital transformation strategies. According to VINASA's survey, 69% of businesses surveyed do not know which partner to choose to implement digital transformation; 72% don't know where to start and 92% don't know how to digitally transform. According to survey results conducted by VCCI and Jetro in 2020, more than 55% of businesses refused to digitally transform because of high costs, nearly 39% said there was a lack of information technology infrastructure

and more than 32% lack of information technology human resources. The survey results also show the modest situation in business digital transformation with main barriers including:

- The cost of investing in digital transformation is still high: This is considered the main challenge in the process of promoting digital transformation in small and medium-sized enterprises, especially enterprises in the manufacturing and agricultural sectors. Vietnam is a developing country, our country's digital infrastructure is still quite rudimentary in terms of data and transmission speed. To promote digital transformation, more investment in infrastructure is needed. This investment process cannot be implemented immediately but takes time and is expensive.

According to Cameron A *et al.* (2019), only 15% of businesses surveyed said they had large investments in digitalization in 2019 and 18% intended to invest heavily in digitalization in the next five years. High investment levels, along with unclear economic benefits and uncertainty about technology application are challenges for digitalization in Vietnam, especially for small and medium-sized enterprises.

- Current information technology infrastructure is underdeveloped;
- Difficulty in accessing solutions for cyber risks and security: The more we depend on technology, the less we depend on people. As processes become more automated, human resource requirements decrease. According to Cameron A and his colleagues, up to 38.1% of our country's current jobs could be transformed due to the impact of automation by 2045. According to a more optimistic assessment, about 15% of total jobs will be automated by 2033. In addition, digital transformation can also increase social inequality: A 2016 World Bank report pointed out that digital transformation brings more benefits to people rich people, but poor people benefit less from these technologies.
- Limited human resources for digital transformation: This is also considered a main challenge for digital transformation in Vietnam now and in the future. Digital transformation requires complex processes and technology. To build the platforms and maintain them requires many experts and trained labor. In our country, there is a shortage of these workers. According to the Ministry of Education and Training, currently the number of universities and colleges nationwide with IT training programs accounts for 37.5%, with about 50 thousand graduates each year. According to Topdev's "Vietnam IT Market Report 2020", about 30% of graduates are able to meet the professional requirements of businesses, the remaining 70% need additional training from 3 months to 6 months. Although Vietnam's IT human resources are highly appreciated, they have not yet been exploited sufficiently to ensure quantity and quality to serve the needs of domestic technology development and be on par with other countries in the world area. Also according to the Topdev report, in 2020, Vietnam has a shortage of about 100,000 IT human resources. In 2020, businesses need more than 400 thousand IT human resources, and that number is 500 thousand in 2021. This shortage comes from many reasons, of which the central causes are: training programs do not meet the requirements of

businesses; Technology changes so quickly that schools cannot keep up to develop appropriate training programs; The market needs highly skilled professionals while new graduates lack practical skills and soft skills (teamwork, time management, communication skills); IT human resources often lack communication skills and are not proficient in English.

- Management organization, business processes, and supply chain have not been standardized;
- Difficulty in accessing information about digital technology

Besides, the rate of SMEs using SMEdx platforms has large differences between provinces and cities. Some provinces and cities have a high ratio of SMEs using the SMEdx platform out of the total number of SMEs using the SMEdx platform nationwide such as Hanoi (34%), City. Ho Chi Minh (32.7%), City. Da Nang (11.5%), Ca Mau (7.5%), Binh Duong (2.5%). Some localities have a low participation rate of SMEs such as Dien Bien, Hoa Binh, Tay Ninh, Hau Giang.

4. Solutions to Promote Digital Conversion for Small and Medium Enterprises in Vietnam

In order for businesses to improve efficiency in production and business activities, enhance their capacity and competitive advantages, and create new values in the process of applying digital transformation, they need to implement the following solutions:

Firstly, to carry out the digital transformation in the most convenient manner, the first is to be aware of what digital transformation is. To have favorable conditions for digital transformation, enterprises must understand the real situation of the business, all steps of the digital transformation that the enterprises must do, and the goals of this process. Based on that, they know what and how they need to do to achieve the goals in digital transformation that they have set. Besides that, they could have suitable digital transformation steps with specific characteristics of their businesses and make reasonable choices during their digital transformation process. In addition, focus on highly applicable business models to help businesses operate in accordance with the business environment in today's developing digital economy.

Secondly, it is necessary to organize the promotion of 4.0 technology, focusing on skills conversion, providing mass open online courses, and cooperating with large organizations and businesses in the world to train and educate. Improve knowledge and skills about digital technology and digital transformation, and form digital culture. Prepare human resources for digital transformation to develop a digital society, leaving no one behind.

Thirdly, authorities at all levels where businesses are operating need to support and implement programs to connect with credit institutions such as commercial banks to support capital to promote digital transformation for businesses. Enterprises in the area, create the best conditions for businesses to access loans to develop production and business in the spirit of focusing on removing barriers, strongly improving the investment and business environment and enhancing productivity competitive force.

Moreover, to improve the effectiveness of implementing policies to support businesses in the 4.0 Industrial Revolution, ministries, branches and local governments need to have specific, detailed and complete instructions on

procedures and regulations. The implementation process is simple and easy to implement; proactively grasp the implementation situation to make timely adjustments or recommendations, have appropriate support methods, and pay attention to small and micro enterprises participating in the 4.0 Industrial Revolution.

Besides that, build a team of sustainable quality human resources to meet the digital transformation requirements of businesses, which are digital human resources and digital finance. Enterprises need to train and train new knowledge and skills for managers and employees to apply technology in the process of operating and managing enterprise activities. For training institutions, training programs need to change to meet the changes and fluctuations of the profession.

Finally, developing digital infrastructure, data and digital management. Agencies and departments need to quickly build, complete and operate database systems, interoperate and share data to serve organizations and businesses. At the same time, focus on network security and information security so that the digital transformation process of businesses takes place conveniently and effectively.

5. Conclusion

Industrial Revolution 4.0 enables smart value chains and digital integration providing almost limitless possibilities. Industry 4.0 solutions help significantly improve operational efficiency, increase productivity and product quality, manage inventory appropriately, use assets effectively... creating a sustainable business environment. In the 4.0 era, for Vietnamese businesses in general and SMEs in particular to survive and develop, the inevitable key for business development is to participate in the Industrial Revolution to help businesses operate effectively. Effectively, standing firm amidst the rapid development of the digital era.

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