

# *Opportunities and Challenges in Digital Transformation for Vietnamese Enterprises*

Vũ Thị Tinh<sup>1\*</sup> and Nguyễn Thị Bội Ngọc<sup>2</sup>

<sup>1\*</sup>Department of Marketing  
University of Finance – Marketing (UFM)  
Ho Chi Minh City, Vietnam  
tinh.vt@ufm.edu.vn

<sup>2</sup>Department of Foreign Languages  
University of Finance – Marketing (UFM)  
Ho Chi Minh City, Vietnam  
nt.boingoc@ufm.edu.vn

\*Corresponding author: Vu Thi Tinh (tinh.vt@ufm.edu.vn)



**Abstract—** Digital transformation involves the application of technology to change business models, representing a necessary need and a survival and development solution for enterprises. Both the government and businesses have recognized this tremendous importance. Through digital transformation, enterprises have opportunities for development, gaining competitive advantages, expanding markets, and establishing partnerships, which help them become more resilient. However, alongside these significant advantages, businesses also face numerous challenges in terms of finances, strategies, awareness, habits, human resources, and other resources. Therefore, both the government and enterprises need appropriate solutions to facilitate digital transformation, such as training human resources, proactively changing, learning, and collaborating to minimize costs. Additionally, the government should encourage and support businesses to accelerate their digital transformation.

**Keywords—** Opportunities; Challenges; Digital Transformation; Vietnamese Enterprises.

## I. INTRODUCTION

In recent years, digital transformation has become a familiar concept for many businesses, especially in the context of the COVID-19 pandemic, where digital transformation has become a necessity and a survival solution for maintaining and developing operations. Digital transformation is not just a trend; it is a reality that businesses need to quickly grasp. According to research by Microsoft in the Asia-Pacific region (2018), the impact of digital transformation on GDP was about 6% in 2017, 25% in 2019, and is projected to be 60% by 2021. The Vietnamese government has also recognized the particularly important role of digital transformation in the economic development of Vietnam, both now and in the future.

Playing a crucial role in the success of Vietnamese enterprises and the country's economic development, digital transformation also brings numerous practical opportunities for businesses to develop, enhance their competitive advantages, and foster innovation and creativity. However, alongside these significant benefits and opportunities, Vietnamese enterprises also face many challenges when applying digital transformation within their organizations. Therefore, businesses and the government need to find solutions to overcome these difficulties. By doing so, they can expand and further implement digital transformation, thereby boosting the country's economy.

## II. THEORETICAL FRAMEWORK

### 2.1. Digital Transformation Theory

According to Santarsiero (2023), digital transformation involves the application of technology to change a company's business model, thereby creating new opportunities and values that help the business increase its growth rate and achieve better revenues. This modular business model allows organizations to transition from rigid, traditional planning to a flexible, proactive state. Consequently, businesses can reduce costs, expand customer relationships, partner networks, business networks, distribution channels, and diversify their income streams.

According to Microsoft (2018), digital transformation is the restructuring of thought in the coordination of data, processes, and people to create new values. In Vietnam, one of the leading information technology companies, FPT, has also provided a comprehensive definition of digital transformation: Digital transformation in enterprises and organizations is the process of transitioning from a traditional model to a digital business by applying new technologies such as Big Data, the Internet of Things (IoT), and Cloud Computing. This transformation aims to change the methods of operation, leadership, work processes, and company culture.

In summary, “digital transformation” involves using data and digital technology to comprehensively and fundamentally change all aspects of economic and social life, reshaping how we live, work, and interact with each other. Digital transformation in businesses is understood as integrating and applying digital technology to improve business efficiency, management effectiveness, enhance competitiveness, and create new values.

## III. RESEARCH METHODOLOGY

The research employs a qualitative approach. It utilizes proven theories and research results from both domestic and international sources, combined with exploratory methods, personal opinions, and viewpoints to analyze and draw conclusions about the opportunities and challenges in the digital transformation of Vietnamese businesses.

## IV. RESEARCH RESULTS

According to research conducted by Microsoft in the Asia-Pacific region (2018), before and after the outbreak of the COVID-19 pandemic, 74% of business leaders believe that innovation is mandatory and plays a crucial role in business resilience. Up to 98% of pioneering businesses in the innovation process believe that innovation is the key to swiftly responding to market challenges and opportunities. Additionally, 56% of CEOs of large enterprises affirm that digital transformation helps increase revenue. Overall, companies that successfully undergo digital transformation achieve 23% higher profits compared to those operating under traditional models.

Research reports indicate that if Vietnam capitalizes on digital technology opportunities, it can boost GDP by an additional \$28.5 - \$62.1 billion, equivalent to a 7-16% increase in GDP by 2030, depending on different scenarios (high, low, average). Per capita GDP could increase by \$315 - \$640 by 2030, thanks to higher productivity and job creation. Manufacturing growth is expected to generate new jobs, with a net increase estimated between 1.3 - 3.1 million jobs. While some jobs will decline, many new ones will emerge. By 2030, digital technologies are projected to help new industries emerge in Vietnam, generating substantial revenues. For example, e-commerce is expected to reach around \$40 billion, artificial intelligence (AI) \$420 million, cloud computing \$2.2 billion, ride-hailing technology \$2.2 billion, smart agriculture \$1.7 billion, and fintech approximately \$1.5 billion.

### 4.1. Opportunities

First of all, automating processes through digital transformation brings overall efficiency to businesses. Technologies such as AI and Machine Learning can process data quickly, enabling the provision of more efficient services to customers. With the assistance of Information and Communication Technology (ICT), the foundation of digital transformation, companies can increase their competitiveness, allowing them to provide a global presence to customers easily. The Internet tends to generate profits for both large and small companies. Through their websites, small companies can achieve revenues comparable to large companies, which would have been unthinkable in a traditional commercial environment. Furthermore, digital transformation enables businesses to respond quickly to customer demands, provide consulting services, and offer product information and usage instructions. Digital transformation also helps businesses optimize processes, streamline workflows, digitize processes, and

automate tasks—all of which can create efficiencies, especially during the ongoing global COVID-19 pandemic. A 2021 survey by the Ministry of Industry and Trade revealed that social media remains the most effective business channel for enterprises (in 2020, 37% of businesses rated social media as highly effective for business). Following social media, corporate websites and mobile applications were rated equally effective by 23% of businesses. On March 9, 2021, the Prime Minister issued Decision No. 316/QĐ-TTg approving the pilot implementation of using telecommunications accounts to pay for small-value goods and services (Mobile Money). This will open up numerous opportunities for business development and electronic payments for businesses.

Secondly, digital transformation facilitates the establishment and strengthening of relationships between partners involved in commerce. Through networks, businesses can communicate directly and continuously with each other. This rapid and ongoing collaboration and management foster the quick identification of new business opportunities, both domestically and internationally, providing more options for partnerships. The 2020 annual report on the Southeast Asia Digital Economy by Google, Temasek, and Bain Company shows a 41% increase in customer engagement on digital platforms in Vietnam—the highest in Southeast Asia. Businesses can find 74% of new customers on digital platforms in urban areas, and the proportion and number of goods and services transacted through the Internet and digital platforms are steadily increasing. Business-to-consumer (B2C) e-commerce revenues have also seen significant growth over the past five years. Specifically, B2C revenue was \$5 billion in 2016, doubled to over \$10 billion by 2019, and reached \$11.8 billion in 2020, with an 18% growth rate compared to the previous year (according to the 2021 E-commerce White Paper).

Besides that, implementing smart technology solutions in business operations leads to better productivity. Digital transformation helps businesses automate processes, reduce manual tasks, cut costs, facilitate employee work, and enhance the convenience of service delivery to customers. Moreover, reducing operational costs and maintaining business activities by automating processes and enhancing customer experience will indirectly boost a company's revenue. Making services more convenient and flexible attracts more customer interest, resulting in higher profits.

Finally, recognizing the importance of Information and Communication Technology (ICT) and digital transformation in the new era, the Vietnamese Communist Party and Government are determined to promote ICT applications in the national socio-economic development strategies. Specifically, the Politburo adopted Resolution No. 52-NQ/TW on September 27, 2019, on several policies for proactively participating in the Fourth Industrial Revolution. The overarching goal is to “Effectively leverage the opportunities presented by the Fourth Industrial Revolution to promote the renewal of the growth model, restructure the economy in connection with strategic breakthroughs and modernization of the country; vigorously develop the digital economy; achieve rapid and sustainable development based on science and technology, innovation, and high-quality human resources; improve the quality of life and welfare of the people; ensure robust national defense and security; and protect the ecological environment.”

### 4.2. Challenges

According to a survey conducted by the Ministry of Planning and Investment, Vietnamese enterprises still face numerous barriers and difficulties in digital transformation. Notably, 60% of businesses cited investment costs and technology application as significant hurdles. Additionally, challenges arise from altering business habits and practices and finding skilled human resources to support digital transformation. To be more specific, many businesses, especially small and medium-sized enterprises (SMEs), struggle with the high costs associated with digital transformation. These costs include purchasing new technologies, training employees, and maintaining digital systems. Also, there is a shortage of skilled personnel capable of implementing and managing digital transformation initiatives. This lack of expertise makes it challenging for businesses to effectively integrate new technologies. Additionally, shifting from traditional business practices to digital ones requires a significant change in mindset and habits. Many businesses find it difficult to motivate their employees to adopt new workflows and systems. Furthermore, deciding on and integrating the appropriate technology can be overwhelming. Businesses need to ensure that they choose technologies that align with their goals and are adaptable to their existing processes. With increased digitalization, concerns about data breaches and maintaining the privacy of sensitive information become more prominent. Businesses must invest in robust cybersecurity measures to protect their data.

## V. CONCLUSION AND SOLUTIONS

The reality demonstrates that many businesses fail to recognize the necessity of digital transformation, delaying or implementing it incompletely. Whether large or small-scale, such businesses risk experiencing digital disruption, which could lead to falling behind and eventually being phased out of competitive environments. Digital transformation presents both opportunities and challenges for businesses in Vietnam today. It enables enterprises to enhance efficiency, increase productivity, gain competitive advantages, expand partnerships, and achieve noticeable growth. However, to reap these significant benefits, businesses must overcome numerous challenges related to strategy, awareness, habits, human resources, and resources. Therefore, businesses and management need to be prepared for continuous and challenging changes.

### 5.1. Solution Proposal for Investment Capital Challenges

Businesses can collaborate to support digital transformation efforts and save costs collectively. The current competitive rush towards digital transformation, exemplified by Vietnamese banks aggressively deploying electronic Know Your Customer (eKYC) solutions, results in substantial financial expenditures for all parties involved. Redirecting these resources towards customer support across multiple banks could be more efficient and beneficial.

### 5.2. Solution Proposal for Awareness and Habit Challenges of Businesses

Businesses in Vietnam need to proactively manage enterprise digital transformation. They must recognize that amidst the strong wave of digital transformation and Industry 4.0 revolution, failure to adapt may lead to obsolescence and exclusion from increasingly competitive landscapes. Adjusting business development strategies within the context of digital transformation is crucial. A specific roadmap from planning to phased technology deployment, aligned with workforce readiness, is essential for addressing current business realities.

### 5.3. Solution Proposal for Internal Talent Shortage in Digital Technology Adoption

There is an urgent need to enhance training and development of human resources for digital transformation initiatives. Organizations and individuals should invest in training facilities, bolstering specialized training for experts, technicians, vocational training, and collaborative training models. Training skilled personnel in fields such as e-commerce, cybersecurity, information technology, and communications is pivotal for the success of the digital economy. Establishing partnerships with universities to train students to meet business needs directly from the classroom is also necessary. Higher education systems should provide students with regular exposure to business environments enhances practical knowledge and digital technology experience.

### 5.4. Solution Proposal for Data Leakage Challenges

Government and regulatory bodies must ensure robust information security and data protection measures for businesses adopting digital technologies. Encouraging and instilling trust among businesses is critical. Implementing stringent management of data leakage incidents from businesses to external sources is imperative.

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