

# Digital Transformation in Vietnamese Enterprises and Proposed Solutions for Acceleration

Dr. Đàm Thị Thanh Huyền

Faculty of Finance and Banking, Thuongmai University, Hanoi, Vietnam

Abstract— This article delves into the specifics of Vietnam's national digital transformation program, highlighting key decisions and resolutions shaping the strategy for e-government development and the digital economy. Furthermore, the study explores the landscape of digital transformation within Vietnamese enterprises, categorizing different stages and identifying drivers and barriers for businesses. Despite expressed interest and readiness, enterprises face challenges such as skill shortages and high implementation costs. The article concludes with recommendations for policymakers and businesses, emphasizing the need for legal support, effective digital strategies aligned with business goals, and investment in workforce training and technological infrastructure to foster successful digital transformation within the Vietnamese context.

*Keywords*— *National digital transformation, enterprise digital transformation, digital economy, Vietnam.* 

## I. GENERAL ISSUES CONCERNING DIGITAL TRANSFORMATION

The term "digital transformation" is no longer unfamiliar today. Intrinsically linked to the Fourth Industrial Revolution (Industry 4.0), digital transformation is an inevitable trend, a matter of survival and development for organizations, impacting every industry and sector of socio-economic life in every nation.

*Digital Economy:* While interpretations vary, there is a general consensus that the digital economy is one where economic and financial relationships and activities are conducted on the foundation of information and communication technology (ICT), the internet, and telecommunications technology within supply chain networks. In other words, the digital economy emerges and develops based on the application of digital technologies, especially electronic transactions conducted via the internet.

Currently, the digital economy permeates all aspects of social life. The race towards a digitally-based economy is one most enterprises, nations, and territories are participating in. To succeed on this path, enterprises must confront numerous challenges, including reliability, security and privacy, investment in human resources, tools, and IT infrastructure to enhance their competitiveness.

Defining Digital Transformation: Several perspectives exist:

- Digital transformation is the use of digital technology to change research, production, and business models with the aim of creating new opportunities and value, improving and enhancing organizational operational efficiency.
- Digital transformation involves applying technology to alter a company's business model, creating new opportunities and value to drive growth. It signifies restructuring resources by coordinating data, processes, and people to generate new value.
- Digital transformation entails the full integration of digital technologies into all areas of a business, fundamentally changing how it operates and delivers value to customers and the enterprise itself.

- Digital transformation represents a cultural shift within an organization, requiring continuous updates with advanced science and technology, embracing novelty, and accepting failures.
- In Vietnam, digital transformation is also understood as the process of changing business models from traditional forms to digital enterprises based on new technology applications, the Internet of Things (IoT), cloud computing, etc., to change management methods, leadership, operational processes, and corporate culture (Trần Thanh Toàn, 2022).

The process of digital transformation typically involves three levels:

- 1. Digitization of Information: Creating digital data representing physical entities.
- 2. Digitization of Organization (Digitalization): Creating or innovating an organization's business operating model to adapt to the digital environment and generate greater new value.
- 3. Comprehensive Transformation: Holistic change across the organization's economic, social, cultural activities, etc., with new operating models (Nguyễn Thanh Bình, 2022).

Distinguishing Between "Digital Transformation" and "Digitization":

- Digitization: The process of upgrading, transforming conventional systems into digital systems (e. g., turning paper documents into digital files).
- Digital Transformation: Exploiting the data obtained from digitization, then applying technologies to analyze and transform that data to create *new value* (e.g., using digitized customer data to create personalized marketing campaigns and new service offerings).

Thus, "digitization" can be considered a foundational part of "digital transformation".

II. VIETNAM'S GUIDING PERSPECTIVES AND NATIONAL DIGITAL TRANSFORMATION PROGRAM

# 2.1. Guiding Perspectives

The 13th National Congress of the Communist Party of Vietnam set the direction regarding Industry 4.0 and digital



Volume 9, Issue 4, pp. 119-122, 2025.

transformation: "Encourage national digital transformation, build the digital economy founded on science and technology, innovation. " On September 27, 2019, the Politburo released Resolution No. 52-NQ/TW regarding "Several guidelines and policies for actively engaging in the Fourth Industrial Revolution," which explicitly details several guiding perspectives:

- Proactive Participation: Actively participating in Industry 4.0 is an objective necessity and a task of special strategic importance, both urgent and long-term, for the entire political system and society, closely linked with globalization and international economic integration. Fully and correctly understanding the substance and nature of Industry 4.0 is crucial for innovating thinking and action, adopting breakthrough solutions with appropriate steps and roadmaps for Vietnam's rapid and sustainable socio-economic development.
- Seizing Opportunities: Grasping and leveraging opportunities to enhance labor productivity, economic efficiency and competitiveness, and the effectiveness and efficiency of state governance, strongly applying the achievements of Industry 4.0.
- Institutional Innovation: Innovating economic thinking and management, social management, building and perfecting socio-economic institutions accordingly. Adopting flexible, open approaches that facilitate innovation.
- Resource Mobilization: Maximizing and effectively utilizing resources for proactive participation in Industry 4.0. Mobilizing internal and external resources while ensuring the Party's leadership, State's management, and the strength of the entire society.

## 2.2. National Digital Transformation Goals

Resolution 52-NQ/TW identified the development of the digital economy as a pillar and a central strategic task in the national digital transformation process for the coming years, with specific targets:

- By 2025: Vietnam's digital economy to account for about 20% of GDP.
- By 2030: Vietnam's digital economy to account for about 30% of GDP.

# 2.3. National Digital Transformation Program

Key governmental decisions formalizing the national strategy include:

- Decision No. 749/QĐ-TTg (June 3, 2020): Approved the "National Digital Transformation Program to 2025, with orientation to 2030."
- Decision No. 942/QĐ-TTg (June 15, 2021): Approved the "E-Government Development Strategy towards Digital Government, period 2021-2025, with orientation to 2030."
- Decision No. 411/QĐ-TTg (March 31, 2022): Approved the "National Strategy for the Development of the Digital Economy and Digital Society to 2025, with orientation to 2030."

Key contents include:

- Vision to 2030: Vietnam evolves into a stable, prosperous digital nation, leading the experimentation of new technologies and models; fundamentally and entirely transforming the government's management and operations, enterprises' production and business activities, and citizens' lifestyles and working methods, fostering a secure and compassionate digital environment in the era of integration.
- Basic Objectives: Pursue the dual goal of developing digital government, digital economy, and digital society, while simultaneously forming Vietnamese digital technology enterprises capable of competition and integration.
- Guiding Principles:
- Awareness plays a decisive role in digital transformation.
- Citizens are the center of digital transformation.
- Institutions and technology are the driving forces of digital transformation.
- Developing digital platforms is a breakthrough solution to accelerate digital transformation.
- Ensuring cybersecurity and reducing costs/enhancing efficiency are key to successful and sustainable transformation.
- Coordination across the political system and participation of the entire population are fundamental factors ensuring success.

## III. DIGITAL TRANSFORMATION WITHIN ENTERPRISES

What is Digital Transformation in Enterprises? It is the process of integrating and applying digital technology into all areas of a business to change operating methods, business models, and corporate culture, thereby enhancing business efficiency, management, competitiveness, and creating new value for customers and partners (Lê Mạnh Hùng, 2023).

Levels of Enterprise Digital Transformation Maturity:

- Level 0: Not Transformed: The enterprise has virtually no significant digital transformation activities.
- Level 1: Initiating: The enterprise has started some initial digital transformation activities.
- Level 2: Beginning: Enterprises recognize the role of digital transformation across key pillars and begin activities within each pillar. At this stage, digital transformation starts bringing benefits to operations and customer experience.
- Level 3: Forming: Digital transformation is basically formed across departments according to key pillars, delivering tangible benefits and efficiencies for business operations and customer experience. This forms the basis of a digital enterprise.
- Level 4: Enhancing: Digital platforms, technologies, and data help optimize many business activities and customer experiences. Enterprises at this level have largely become digital enterprises, with some core business models based on digital platforms and data.
- Level 5: Leading: Enterprise digital transformation reaches near completion. The business truly becomes a



Volume 9, Issue 4, pp. 119-122, 2025.

digital enterprise with most business methods and models primarily based on and led by digital platforms and data. These enterprises can lead digital transformation and establish digital ecosystem satellites.

*Why Do Enterprises Need Digital Transformation?* Generally, digital transformation plays a crucial and urgent role for businesses. Key reasons include:

- 1. Cost Savings: Optimizing operational expenses.
- 2. Better Resource Management: Improved information management and exploitation of internal resources (data).
- 3. Enhanced Customer Experience: Providing seamless and personalized interactions.
- 4. Increased Agility: Optimizing internal and external workflows, making the business more flexible.
- 5. Improved Governance: Increasing transparency and efficiency in management and operations.
- 6. Productivity Gains: Enhancing labor productivity within the enterprise.
- 7. Competitive Advantage: Improving market position and competitiveness.
- 8. Profit Maximization: Driving revenue growth and profitability.
- 9. Stronger Corporate Culture: Contributing to building a more adaptive and innovative culture.
- Who Executes Digital Transformation?

Digital transformation creates increasingly profound impacts throughout the organization. Therefore, it demands strong participation from all levels within the enterprise.

- Leadership: Business leaders assume the leading role, outlining the vision for digital transformation and guiding the whole organization.
- Management: The management board needs to implement appropriate policies to build a digital culture, encouraging all personnel to experiment and apply new solutions, facilitating a smooth and effective transformation process.
- Employees: All members of the organization/enterprise need to actively participate in digital transformation activities, contributing innovative ideas and initiatives. The degree of solution adoption and the working methods of the workforce are crucial factors directly reflecting the results of the digital transformation process.

#### IV. SNAPSHOT OF DIGITAL TRANSFORMATION IN VIETNAM

In general, the rate of digital transformation differs among countries, influenced by the degree of technological advancement and the pace of business transformation. In Vietnam, businesses face distinct opportunities and challenges in the digital transformation journey driven by Industry 4.0.

With a population nearing 100 million, an economy ranked among the fastest-growing in the region, being in a "golden population" period, and having the capacity to access advanced technology, Vietnam presents strong opportunities for businesses to achieve leapfrog growth through digital transformation.

However, findings from CISCO's "Asia Pacific SMB Digital Maturity Index" report indicate that Vietnamese Small and Medium-sized Businesses (SMBs) face hurdles:

• Lack of digital skills and talent: 17%

- Lack of a robust IT platform: 16.7%
- Lack of a digital mindset or cultural challenges: 15.7%
- Investment priorities: Cloud technology (18%), Cybersecurity (12.7%), Hardware/Software upgrades (10.7%) (Trần Thanh Toàn, 2022).

Overall, in Vietnam, while over 80% of business leaders express interest in digital transformation and 65% are willing to invest heavily, a significant 53.7% face issues with internal work solutions. Currently, the most significant barrier Vietnamese enterprises encounter when adopting digital technology is the high cost of implementation (Trân Thanh Toàn, 2022).

According to a VCCI & VNPT (2020) survey, enterprise perspectives and awareness regarding digital technology were summarized as follows:

- 50.9%: Had already applied digital technologies before the COVID-19 pandemic.
- 25.7%: Started applying digital technologies due to COVID-19 and intend to continue using them.
- 3.1%: Started applying digital technologies due to COVID-19 but plan to revert to old structures post-pandemic.
- 17.3%: Have not yet applied digital technologies but became interested due to COVID-19.
- 3.3%: Have not applied digital technologies and have no future plans to do so.

#### V. PROPOSED SOLUTIONS FOR ACCELERATING DIGITAL TRANSFORMATION IN ENTERPRISES

To accelerate digital transformation, Vietnamese enterprises should consider the following solutions:

- 1. Enhance the Institutional and Legal Environment: The government should continue building and refining the legal framework to meet the demands of digital transformation. This includes developing and publicizing sectoral strategies and plans for IT development and application in the context of Industry 4.0. Issuing standards for information exchange and coordination among agencies, organizations, and units is needed to create linkage and synchronization in investing and developing IT-based infrastructure.
- 2. Develop Compelling Digital Strategies: Enterprises must formulate genuinely attractive digital strategies with action plans that align digital transformation initiatives with business objectives, vision, mission, and values.
- 3. Invest in Human Capital: Implement strategies and plans for training high-quality human resources equipped with the skills and expertise required for digital transformation. Address the identified skills gap.
- 4. Build Data Infrastructure and Foster R&D: Enterprises need to establish a common data infrastructure across the organization. Invest in research and development (R&D) to drive changes in products and services. Continuously upgrade existing systems and adopt new digital technologies, ensuring information security and cybersecurity for all organizational data.
- 5. Select Appropriate Technology: In the context of Industry 4.0's widespread application and the increasing availability of digital transformation platforms, choosing the right



technology that fits the scale and resources of each entity is challenging but crucial. Enterprises must select technologies that are optimal, modern, aligned with current trends, and suitable for their specific characteristics and needs.

## VI. CONCLUSION

Digital transformation is not merely a technological upgrade; it's a fundamental strategic shift essential for the competitiveness and sustainable development of Vietnamese enterprises. While national programs provide direction and businesses show willingness, overcoming barriers like cost, skills gaps, and strategic alignment requires concerted effort from both the government and the enterprises themselves. By focusing on robust strategies, human capital development, appropriate technology adoption, and a supportive regulatory environment, Vietnam can successfully navigate its digital transformation journey.

#### REFERENCES

- Vân Anh (2022), Chuyển đổi số có thể giúp các doanh nghiệp tăng gấp đôi năng suất, lợi nhuận [Digital transformation can help businesses double productivity, profits], ICT News.
- Nguyễn Văn Bình (Ed.) (2019), Chủ trương, chính sách của Việt Nam chủ động tham gia cuộc cách mạng công nghiệp lần thứ tư [Vietnam's Guidelines and Policies for Proactively Participating in the Fourth Industrial Revolution], National Economics University Publishing House.
- Nguyễn Thanh Bình (2022), Kinh tế số và việc vận dụng vào các doanh nghiệp Việt Nam trong bối cảnh cuộc CMCN 4.0 [Digital Economy and its Application to Vietnamese Enterprises in the Context of Industry 4.0], Vietnam Economic Forum 4, "Technological Innovation, Digital Transformation and Supply Chain Diversification", Ho Chi Minh City, June 5, 2022.

- 4. Politburo (2019), Nghị quyết số 52-NQ/TW về một số chủ trương, chính sách chủ động tham gia cuộc cách mạng công nghiệp lần thứ tư [Resolution No. 52-NQ/TW on Several Guidelines and Policies for Proactively Participating in the Fourth Industrial Revolution].
- Vietnam Economic Forum 4 (2022), "Đổi mới công nghệ, chuyển đổi số và đa dạng hoá chuỗi cung ứng" ["Technological Innovation, Digital Transformation and Supply Chain Diversification"], Ho Chi Minh City, June 5, 2022.
- Lê Mạnh Hùng (2023), *Tập đoàn dầu khí Việt Nam chuyển đổi số* [PetroVietnam's Digital Transformation], Hanoi, May 2023.
- Prime Minister (2020), Quyết định số 749/QĐ-TTg phê duyệt "Chương trình chuyển đổi số quốc gia đến năm 2025 định hướng đến năm 2030" [Decision No. 749/QĐ-TTg Approving the "National Digital Transformation Program to 2025, with orientation to 2030"], June 3, 2020.
- Prime Minister (2021), Quyết định số 942/QĐ-TTg phê duyệt "Chiến lược phát triển Chính phủ điện tử hướng tới Chính phủ số giai đoạn 2021-2025, định hướng đến 2030" [Decision No. 942/QĐ-TTg Approving the "E-Government Development Strategy towards Digital Government, period 2021-2025, with orientation to 2030"], June 15, 2021.
- 9. Prime Minister (2022), Quyết định số 411/QĐ-TTg phê duyệt "Chiến lược quốc gia phát triển Kinh tế số và xã hội số đến năm 2025, định hướng đến 2030" [Decision No. 411/QĐ-TTg Approving the "National Strategy for the Development of the Digital Economy and Digital Society to 2025, with orientation to 2030"], March 31, 2022.
- Trần Thanh Toàn (2022), *Ích lọi của chuyển đổi số trong doanh nghiệp* [Benefits of Digital Transformation in Enterprises], Vietnam Economic Forum 4, "Technological Innovation, Digital Transformation and Supply Chain Diversification", Ho Chi Minh City, June 5, 2022.
- VCCI & VNPT (2020), Chuyển đổi số: giải pháp giúp doanh nghiệp vượt qua đại dịch Covid-19 [Digital Transformation: Solutions to Help Businesses Overcome the Covid-19 Pandemic], Information and Communications Publishing House.
- Đỗ Văn Viện (2021), Chuyển đổi số hướng đi bền vũng cho doanh nghiệp trong cuộc CMCN 4.0 [Digital Transformation - A Sustainable Direction for Enterprises in Industry 4.0], Journal of Economics and Forecasting, No. 17, June 2021.