

# The Impact of Digital Transformation on the Competitive Advantage of Small and Medium-sized Enterprises: A Perspective from Senior Managers

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## Abstract

*This study aims to elucidate the impact of digital transformation on the competitive advantage of small and medium-sized enterprises (SMEs) in Vietnam, based on the perspectives and lived experiences of senior managers. Adopting a qualitative research method with a multiple case study strategy, data were collected through 16 semi-structured in-depth interviews with leaders and analyzed thematically. The results indicate that digital transformation is not merely a cost-optimization tool but has become a strategic lever that redefines competitive advantage, shifting from price-based competition to competition based on speed, customer experience, and flexibility. Key impacts include: enhancing operational efficiency through automation, personalizing customer relationships via data analytics, enabling data-driven decision-making, and facilitating the experimentation of new business models. In terms of practical implications, the study emphasizes that the success of digital transformation depends more on the mindset shift of leadership and organizational culture than on technology. It also suggests that SMEs should prioritize projects with a clear return on investment (ROI) and that policymakers should provide more substantive support in consulting and training. The originality of this research lies in its use of an interpretive approach to deeply explore the perceptions of managers within an emerging economy, thereby providing a practical, human-centric perspective that complements previous quantitative studies.*

**Keywords:** Digital Transformation, Competitive Advantage, Dynamic Capabilities, Vietnam.

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## 1. Introduction

Small and medium-sized enterprises (SMEs) are widely recognized as the backbone of the Vietnamese economy, playing a pivotal role in fostering economic growth, creating employment, and promoting innovation. According to statistics, the SME sector accounts for approximately 98% of all active enterprises, contributes about 45% to the Gross Domestic Product (GDP), and employs over 5 million people (General Statistics Office, 2023). However, in the context of the powerful ongoing Fourth Industrial Revolution, SMEs face increasing pressure to maintain and enhance their competitive advantage. In this environment, digital transformation is no longer an option but has become a strategic imperative for survival and growth (Vial, 2021). Recognizing this importance, the Vietnamese Government issued the "National Digital Transformation Program to 2025, with a vision to 2030," emphasizing the goal of developing a digital economy and society, with SMEs as a central focus (Prime Minister, 2020). Nevertheless, the digital transformation journey of Vietnamese SMEs has its own unique characteristics, presenting both an opportunity to break through in a dynamic market and a major challenge due to inherent limitations in financial resources, high-quality human resources, and technological capabilities (Bouwman et al., 2019).

Although the importance of digital transformation is acknowledged, many SMEs in Vietnam still struggle with implementation and have not clearly identified the link between

technology investments and sustainable improvement in competitive advantage. This causal relationship is often complex and influenced by many contextual factors (Matt et al., 2015). Furthermore, the majority of existing research on this topic often applies quantitative methods, focusing on measuring technology adoption levels or is conducted in large corporations, which have significantly different resources and structures compared to SMEs. This has created a significant knowledge gap: a lack of deep, interpretive insights into how senior managers—those who directly make strategic decisions—perceive and experience the process of using digital transformation to enhance competitive advantage.

To address this gap, this study poses the central research question: According to the perceptions of senior managers, how has digital transformation impacted the competitive advantage of SMEs in Vietnam?

The sub-questions include:

- (i) Which elements of competitive advantage do senior managers at SMEs identify as being most affected by digital transformation?
- (ii) What are the main opportunities and challenges they face when using digital transformation to enhance competitive advantage?

Accordingly, this study has the following main objectives: (1) To explore the dimensions of competitive advantage that SMEs can improve through digital transformation from a manager's perspective; (2) To explain the manner and mechanisms by which digital transformation creates these impacts; and (3) To identify the contextual factors that influence this relationship.

Theoretically, this study contributes to enriching the theory of dynamic capabilities (Teece et al., 1997) by providing empirical evidence of how SMEs in an emerging economy build and reconfigure digital resources to adapt to the environment. Practically, the study provides deep insights and lessons learned for SME managers, while also offering policy suggestions for relevant agencies to support a more effective digital transformation process.

## 2. Literature Review

To clarify the complex relationship between digital transformation and competitive advantage, this study is built on two main theoretical pillars: the resource-based view and the theory of dynamic capabilities. The resource-based view posits that a firm's sustained competitive advantage stems from owning and controlling valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). In the current context, digital assets such as customer data, proprietary algorithms, and technology platforms can be considered such strategic resources. However, in a rapidly changing business environment, merely possessing resources is not enough. The theory of dynamic capabilities adds that a firm's ability to integrate, build, and reconfigure internal and external competencies to address a changing environment is the decisive factor (Teece et al., 1997). From this perspective, digital transformation is not just the application of technology, but an expression of dynamic capabilities, reflecting the firm's ability to sense opportunities, seize them, and reconfigure the organization to create new value.

Digital transformation is defined as a process of profound change in an organization's activities, processes, competencies, and business models to fully leverage the changes and opportunities of digital technologies (Vial, 2019). Studies often analyze digital transformation through three main areas of impact: customer experience, operational processes, and business models (Westerman et al., 2014). Many international studies have shown a positive correlation between investment in information technology capabilities and firm performance (Bharadwaj, 2000). Firms with a higher level of digital maturity often achieve superior operational efficiency and profitability compared to their competitors (Hess et al., 2020).

However, in Vietnam, the context of SMEs has its own peculiarities. Although many studies affirm the role of digital transformation, they often focus on barriers such as lack of capital, inadequate technology infrastructure, and limited digital skills of the workforce. These studies, while valuable, often overlook the in-depth exploration of the perceptions and experiences of SME leaders themselves regarding how digital transformation truly creates a competitive advantage. This gap is crucial because the leader's decision and vision are the starting point and driving force for the entire transformation process.

From a review of previous works, a firm's competitive advantage is often examined through core factors such as cost efficiency, product and service differentiation, customer service quality, and flexibility and speed of market response (Porter, 1985). This study will use these factors as a frame of reference to explore and explain the impacts of digital transformation from the very perspective of senior managers at Vietnamese SMEs, thereby contributing a qualitative, in-depth, and practical perspective to the existing body of knowledge.

### 3. Research Methodology

This study adopts a qualitative method with an interpretive approach to deeply understand the meaning that senior managers attribute to their experiences of digital transformation and its impact on competitive advantage. This approach is suitable for the goal of exploring complex and context-dependent processes, rather than statistically measuring causal relationships.

A multiple case study strategy was chosen to allow for in-depth analysis and cross-case comparison, thereby enhancing the generalizability and reliability of the findings. Each enterprise is treated as a separate "case." Purposive sampling was used to select information-rich cases that met the criteria: being an SME that has been implementing digital transformation activities for at least two years; operating in diverse industries (manufacturing, services, retail); and the interviewee being a senior manager with decision-making authority. The final sample consisted of 16 managers, determined based on the principle of theoretical saturation, the point at which new interviews no longer provide new themes or insights.

Data were collected primarily through semi-structured in-depth interviews, conducted between March 2025 and June 2025. Each interview lasted from 60 to 90 minutes. The interview guide was developed based on the analytical framework from the literature review but remained flexible to explore emergent issues. All interviews were audio-recorded with the participants' consent and supplemented by the researcher's field notes.

A 6-step Thematic Analysis method was used: (1) Familiarizing with the data (transcribing, re-reading), (2) Generating initial codes, (3) Searching for themes, (4) Reviewing themes, (5) Defining and naming themes, and (6) Writing the report.

### 4. Findings

Analysis of data from 16 in-depth interviews with senior managers highlighted several key themes, reflecting their perceptions of the impact of digital transformation on their firm's competitive advantage. This section will present these themes objectively, using direct quotes from participants for illustration.

#### **Theme 1: Redefining Competitive Advantage in the Digital Era**

A consistent finding from the interviews is a fundamental shift in how managers perceive the nature of competitive advantage. Instead of focusing primarily on traditional factors like price and product quality, they now emphasize speed, customer understanding, and the overall experience. A director of a retail company summarized this shift: *"Previously, we competed on price; whoever was cheaper, won. Now, the game has changed. Customers are*

*willing to pay more for convenience and a personalized experience.*" (Director, Retail Company).

This shift places data analytics capabilities at the center. The ability to collect, analyze, and act on customer data is seen as the core differentiator. As one manager stated, competitive advantage is no longer a static concept. He shared: *"Competitive advantage now is the ability to understand customers faster than the competition. Whoever has the data and understands it first will lead the market."* (CEO, Technology Company). The speed of market response, driven by real-time data, was also mentioned by many as a vital competitive edge. A marketing manager said: *"Thanks to analytics tools, we can spot a new trend and launch a campaign in just a few days, instead of weeks like before. That speed is our advantage."* (Head of Marketing, Service Company).

### **Theme 2: Impact on Operational Efficiency and Resource Optimization**

Besides the strategic mindset shift, the most tangible and commonly reported impact is a significant improvement in internal operational efficiency. Most managers emphasized the role of automating manual processes, which helps minimize errors and free up human resources. An operations manager shared his experience: *"The biggest gain is the reduction of human error. Everything is standardized on the software, from data entry to reporting, so the accuracy is almost absolute."* (Head of Operations, Logistics Company).

Freeing employees from repetitive tasks allows them to focus on higher-value activities. A director of a manufacturing plant said: *"We saved 30% of order processing time, which allows our staff to focus on customer care and seeking new sales opportunities, instead of just doing data entry."* (Director, Manufacturing Company).

This improvement also extends to supply chain and inventory management, a pressing issue for many SMEs. The adoption of management systems has given businesses a more comprehensive and accurate view of their material flows. A business owner in the food and beverage industry affirmed: *"Inventory management is now at our fingertips. Real-time sales data helps us forecast demand accurately, reducing inventory by up to 40% and nearly eliminating sudden stockouts."* (Business Owner, F&B Company). These improvements not only directly cut costs but also indirectly enhance customer satisfaction.

### **Theme 3: Impact on Customer Relationships and Differentiation**

Digital transformation is viewed by managers as a strategic tool to transform customer relationships from purely transactional to deeply interactive and engaging. At the heart of this transformation is the ability to personalize the customer experience at scale, something that was nearly impossible before. By analyzing behavioral data, purchase history, and interactions, businesses can deliver more relevant messages and products. A marketing director shared: *"We no longer send out mass promotional emails. Our CRM system helps us know what product customer A just viewed, or that customer B's warranty is about to expire. Every interaction must have a reason and bring value to them."* (Marketing Director, Cosmetics Company).

Furthermore, building a seamless omnichannel communication system is considered a key differentiator. Today's customers expect a consistent experience whether they interact via a website, mobile app, social media, or in-store. A manager in the fashion industry stated: *"A customer can order on the app, pick up in-store, and when they need support, our staff already has their entire transaction history. That experience is what retains customers, not the price."* (Chain Store Manager, Fashion Company). Moreover, digital platforms open up opportunities to create value-added services, helping businesses escape the competition on physical products. A CEO of a home appliance company explained: *"We don't just sell air purifiers. We sell 'clean air.' The accompanying app allows customers to monitor air quality, receive filter replacement*



*alerts, and even schedule automatic maintenance. That is a service, not just a product.*" (CEO, Home Appliance Company).

#### **Theme 4: Impact on Strategic Flexibility and Business Models**

This change in customer approach and differentiation is backed by a deeper shift in the firm's decision-making capabilities and strategic thinking. One of the most transformative impacts noted is the ability to make data-driven decisions. Many managers admitted that this has changed the corporate culture from one based on experience and intuition to one based on concrete evidence. An executive director said: *"Previously, all major decisions were based on the experience and 'gut feeling' of the leadership team. Now, every proposal must be accompanied by data to back it up. The culture of debating based on numbers has completely changed the way we work."* (Executive Director, Education Company).

This flexibility is most evident in the speed of strategic adjustment. Real-time data allows businesses to respond more nimbly to market fluctuations. As one manager asserted: *"Real-time data helps us adjust our marketing strategy weekly, not quarterly like before."* (Director, Tourism Company). More importantly, digital transformation also facilitates the testing and implementation of new business models. Some companies have begun to shift from selling products one-time to providing long-term services. An owner of an industrial machinery manufacturing business shared: *"Instead of just selling a machine once, we started offering a 'equipment rental with full maintenance service' package. This creates a steady cash flow and binds us to the customer for the long term. This would be impossible without a digital platform to manage it."* (Business Owner, Mechanical Engineering Company).

#### **5. Discussion**

The research findings indicate that from the perspective of senior managers, the impact of digital transformation on the competitive advantage of Vietnamese SMEs extends far beyond the role of a mere cost-optimization tool. Instead, it is perceived as a strategic lever that helps redefine value, enhance flexibility, and build deeper customer relationships. This finding resonates strongly with the theory of dynamic capabilities (Teece et al., 1997). The use of data by firms to "understand customers faster than the competition" and quickly adjust strategies is a clear manifestation of the capabilities to "sense" and "seize" market opportunities. Similarly, experimenting with new business models, such as shifting from selling products to leasing services, demonstrates the ability to "reconfigure" the organization to maintain relevance in a volatile environment.

When compared with previous studies, the results of this research provide additional practical depth, supporting the findings of Bharadwaj (2000) and Hess et al. (2020) on the role of technological and data capabilities in creating competitive advantage. However, the study also highlights a crucial nuance specific to Vietnamese SMEs. Unlike large corporations that can pursue large-scale, long-term digital transformation projects, the SME managers in this study sample clearly prioritized initiatives that deliver a quick impact on operational efficiency and cash flow, such as process automation and inventory optimization. This accurately reflects the immense pressure on resources and the need to demonstrate a rapid return on investment (ROI) that SMEs often face, a point that has been noted in studies on the Vietnamese context.

One of the most profound findings of the study is the consistent assertion by managers that the greatest challenge lies not in selecting or implementing technology, but in changing the mindset and culture of the organization. The barrier comes from the resistance to change from long-serving employees and the difficulty in building a data-driven decision-making culture. This finding adds a critical dimension to discussions on digital transformation, which often focus on technological and financial factors. It affirms that digital transformation is a

transformation of people and culture before it is a transformation of technology. Consequently, leadership and change management capabilities emerge as decisive factors for success, an aspect that needs to be emphasized in both theoretical research and managerial practice in SMEs.

## 6. Conclusion and Implications

### 6.1. Conclusion

This study was conducted to explore and explain the impact of digital transformation on the competitive advantage of SMEs in Vietnam, from the perspective of senior managers. Answering the research question, the results show that digital transformation is not just a means to optimize costs but has become a strategic lever, profoundly impacting the nature of competitive advantage. Managers have redefined competitive advantage, shifting the focus from price to market response speed and the ability to create superior customer experiences. Tangible impacts were clearly noted in enhancing operational efficiency through automation, resource optimization, and more effective supply chain management. More importantly, digital transformation allows SMEs to build deeper customer relationships through personalization, develop seamless omnichannel interaction channels, and create differentiation with value-added services on digital platforms. Finally, the study confirms that data-driven decision-making capabilities and flexibility in experimenting with new business models are core strategic advantages brought about by digital transformation.

### 6.2. Contributions of the study

This study makes significant contributions in three areas: theoretical, practical, and policy.

- **Theoretical Contributions:** This research contributes to enriching the theory of Dynamic Capabilities (Teece, Pisano, & Shuen, 1997) by providing detailed empirical evidence of the mechanisms through which digital transformation helps SMEs to "sense," "seize," and "reconfigure" in the specific context of an emerging economy. It shows that digital transformation is not a static resource but a dynamic process that helps firms continuously adapt and create sustainable competitive advantage.
- **Practical/Managerial Implications:** The study proposes several important managerial implications for SME leaders: (1) Digital transformation must begin with a change in the leader's mindset, viewing it as a strategic business transformation rather than a mere IT project. (2) SMEs should prioritize implementing projects with a quick impact and a clear return on investment (ROI), such as optimizing operational processes, to build momentum and resources for longer-term initiatives. (3) Investment in technology must go hand-in-hand with investment in people. The biggest challenge is culture; therefore, training digital skills and building a culture that is ready to change and embraces experimentation are vital.
- **Policy Implications:** The research also offers implications for government agencies. Support programs for SME digital transformation need to be designed more substantively, moving beyond mere financial assistance. There should be programs focused on enhancing managerial capacity, providing strategic consulting, connecting businesses with expert networks, and organizing practical training courses to address the biggest bottlenecks: mindset and people.

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