

## Could Digital Business Strategy Improve Firm Performance?

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**Abstract:** *The paper aims to present the framework of digitalization in small and medium enterprises (SMEs). The relationship between digital business strategy and firm performance is analyzed. Employing the sample of about 240 Vietnamese SMEs collected in 2021, with PLS-SEM analyzing approach, the study figures out the indirect impact of digital business strategy on firm performance via IT and dynamic capability. The paper provides a valuable analysis framework for firms to improve IT and dynamic capability as success objectives. It is proposed that firms must simultaneously commit to digital transformation and incorporate implicating IT tools, enhancing dynamic capabilities. Internal capabilities and digitalization interact to exert a more significant influence on performance.*

**Keywords:** *digital transformation, business strategy, information technology, dynamic capability, firm performance*

### 1. Introduction

Technology has progressed further, and a fourth level has emerged. The term *industry 4.0* is currently being used. The emphasis is no longer on basic data administration but on the creation of services in which big data plays a critical role in competitiveness. Organizations across many sectors are now reconsidering procedures and even whole business models to turn big data and its uses into strategic benefits. The three primary components of the technology-induced value-added process are digitization or IT technology acceptance and utilization, IT value creation, and influence on firm performance[1].

Large enterprises, which used more advanced technology before the pandemic, also have higher adoption rates of sophisticated technologies related to supply chains or internal processes when the epidemic hits. Adopting technology helps limit the magnitude of the decline in jobs and sales. Applying technology to the value chain correlates exceptionally with better sales results. In developed countries, there is also a link between digital technology and the tendency to widen the gap between the best businesses and the rest and between digital technology and the increasing market share of companies. If the technologies critical to productivity are not diffused beyond a few firms, the majority will become worse off. Small businesses need to take advantage of digital technology in the context of the pandemic to promote their strengths and enhance their performance [2], [3]. Despite its benefits, the digital economy poses concerns about how individuals and businesses adapt and flourish.

The relationship between digitalization strategy and SMEs' performance remains ambitious, especially factors underlying this relationship that were not discovered in the emerging market [2]. Filling this literature gap, this article examines how having a digital business strategy enables the development of value using digital technologies to increase organizational performance. The next part of this paper discusses the theoretical foundations and the evolution of the research hypotheses. Following that, the data collection and analysis techniques are discussed. The hypothesis testing outcomes ensure availability. Finally, the study discusses these findings.

## **2. Conceptual framework**

### **2.1. Firm performance**

Firm performance, or business performance, has been widely examined in various studies. In general, firm performance comprises two components which are financial and non-financial performance [4]. Financial performance refers to the company's ability to assess its performance in terms of money value and financial operations, such as return on assets (ROA) and the ratio of operating income to assets (OI/A) [5]. Meanwhile, non-financial performance refers to the company performance that cannot be evaluated by money value, such as customer satisfaction, organizational performance, and innovation activities [6]. Although financial criteria are direct approaches to access the firm's short-term survival, non-financial performance has been highly evaluated by SMEs and large corporations to attract and retain customers, enhance the brand reputation. The firm performance also reveals firm growth and sustainability in the long term [7]. In addition, digital transformation is a long-term process and requires many resources besides financial capabilities; thus, it is more appropriate for this study to concentrate on the non-financial perspective of firm performance.

### **2.2. Digital business strategy**

Digital business strategy is defined as transformation in the enterprise's business procedure, capabilities, and daily operational process [8]–[10]. This factor is revealed as one of the most prominent notions in the business world, referring to the connection between strategic management and information technology. Other studies suppose that a digital business strategy is developed and implemented within an organization by leveraging digital resources to generate differential values [11], [12]. It is argued that digital business strategy is established as an organizational-level strategy rather than a common functional tactic, as the ultimate aim of these strategies is to create values for the entire company through the implementation of technology [2], [13].

Digital business strategy plays an essential role in improving the viability and efficiency of enterprises [2], [14] concerning cost reduction, digital technologies integration, and the renovation of business models. Specifically, several firms are significantly investing in infrastructure to facilitate their digitalization process and enhance the flow of information, sustaining a competitive advantage and improving firm performance. Similarly, prior studies have also emphasized the relationship between digital business strategy and firm performance [2], [5]. Hence, we proposed the following hypotheses:

***H1: Digital business strategy has a positive relationship with firm performance.***

### **2.3. IT capability**

IT capability indicates the ability of a company to deploy IT-related resources in the activities of forming business strategies and promoting work processes [15]. Many previous studies have emphasized IT capability as a critical factor distinguishing businesses from their competitors regardless of their operating sectors. Specifically, information sharing through an effective IT system can facilitate collaboration and improve organizational management. Recently, firms have been heavily depending on IT and their capability to effectively and efficiently integrate IT resources with several procedures within the organizations [16]. Hence, it is reasonable that digital business strategy, a part of such business procedures playing an essential role in developing digital transformation and IT integration in an organization, has a close connection with IT capability. Previous research has affirmed that digital business strategy allows organizations to significantly improve their IT capabilities, promote digital transformation, and increase their market value [1], [2].

Apart from the internal IT-based cooperation, the inter-firm collaboration focusing on the interchange of IT resources is also supposed to create benefits for involving parties [17]. Following the empirical results of

previous studies, the ability to establish such connections to strengthen IT competence will relatively deliver a significant impact on overall business performance [18]–[20]. IT capability enables firms to sustain a proactive stance, improve IT infrastructure, and discover a competitive edge, leading to higher firm performance and standing out from the competitors. Based on the above discussion, we proposed the following hypotheses:

***H2: Digital business strategy has a positive relationship with IT capability.***

***H3: IT capability has a positive relationship with firm performance.***

## **2.4. Dynamic capability**

Dynamic capability is characterized as integrating, improving, and reshaping an organization's internal and external resources as an approach to cope with the briskly changing business environment [21]. The previous study [22] regards dynamic organizational capability as “a high-level routine (or collection of routines) that, together with its implementing input flows, confers upon an organization's management a set of decision options for producing significant outputs of a particular type.” Dynamic capability enables businesses to recognize and utilize profitable configurations of abilities and resources with the firm's innovation and agility, supporting the companies to create new products and services and potentially expand to new markets that competitors have not exploited yet [23]. In the digital era, business strategy and dynamic capability are closely connected, and digital strategy allows firms to transform and improve their capabilities to better implement digital technology in business processes [24], [25].

The research of [26] upholds the view that IT capability directly influences dynamic organizational capability. Accordingly, the study conceptualized dynamic capability as a high-order construct comprising several sub-factors, such as adsorptive capability, adaptive capability, innovation capability and network capability. Furthermore, the firm's IT competency is a critical enabler, influencing each of those sub-factors and developing a firm's dynamic capability as a whole. Former studies have highlighted the role of IT competencies in the process of enhancing dynamic capability and suggested firms, especially larger ones, relentlessly develop IT-based competencies to leverage other internal capabilities, including dynamic capability [27]–[29].

In a changing business environment, dynamic capability ensures and manages the change that arises in a firm [30]. The previous study [21] reported that a firm's dynamic capability positively influences its performance. Other scholars considered dynamic capability as a constructive and practical manner to scrutinize and evaluate the overall impact on increasing business performance [31], [32]. Based on the above discussion, we proposed the following hypotheses:

***H4: Digital business strategy has a positive relationship with dynamic capability.***

***H5: IT capability has a positive relationship with dynamic capability.***

***H6: Dynamic capability has a positive relationship with firm performance.***

## **3. Methodology:**

The study will focus on SMEs operating in Ho Chi Minh City since most Vietnamese enterprises are there. The questionnaire is sent to over 600 small and medium-sized businesses with less than 300 workers in various sectors (e.g. software providers, logistics and transportation, trading, travel, etc.). After screening over 600 replies from SMEs, 240 valid samples were identified, providing a sufficient sample size for PLS-SEM analysis and producing relevant findings. Senior executives are the primary responders to this research since they are most acquainted with the organizational components of the study.

This study collects data based on a 5-point Likert scale, ranging from “1 = strongly disagree” to “5 = strongly agree”. The measurement scale has six constructs in total that are: digital business strategy (4 items adopted from [11], information technology (IT) capability (4 items adopted from [33]), dynamic capabilities (4 items adopted from [34]), and business performance (4 items adopted from [7]).

The measuring model assessment has been conducted to evaluate the validity of measurement scales. All requirements for the convergent and discriminant validity of the measurement model are satisfied [35].

TABLE I: Convergent validity

|  | <b>Cronbach's Alpha</b> | <b>rho_A</b> | <b>CR</b> | <b>(AVE)</b> |
|--|-------------------------|--------------|-----------|--------------|
| <b>Digital business strategy (DBS)</b> | 0.966                   | 0.967        | 0.975     | 0.909        |
| <b>Dynamic capability (DC)</b>         | 0.937                   | 0.938        | 0.955     | 0.841        |
| <b>Firm performance (FP)</b>           | 0.905                   | 0.908        | 0.934     | 0.778        |
| <b>IT capability (ITC)</b>             | 0.918                   | 0.919        | 0.942     | 0.803        |

TABLE II: Fornell-Larcker Criterion

|            | <b>DBS</b> | <b>DC</b> | <b>FP</b> | <b>ITC</b> |
|------------|------------|-----------|-----------|------------|
| <b>DBS</b> | 0.953      |           |           |            |
| <b>DC</b>  | 0.774      | 0.917     |           |            |
| <b>FP</b>  | 0.664      | 0.776     | 0.882     |            |
| <b>ITC</b> | 0.722      | 0.687     | 0.641     | 0.896      |

TABLE III: Heterotrait-Monotrait Ratio (HTMT)

|            | <b>DBS</b> | <b>DC</b> | <b>FP</b> | <b>ITC</b> |
|------------|------------|-----------|-----------|------------|
| <b>DBS</b> |            |           |           |            |
| <b>DC</b>  | 0.813      |           |           |            |
| <b>FP</b>  | 0.706      | 0.840     |           |            |
| <b>ITC</b> | 0.766      | 0.740     | 0.700     |            |

#### 4. Empirical results:

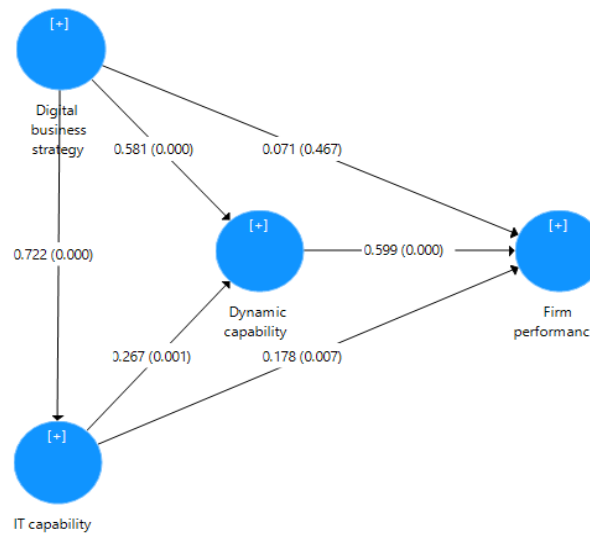


Fig. 1: Structural model results

TABLE IV: Indirect effects testing

|  | <b>Coef.</b> | <b>P Values</b> |
|--|--------------|-----------------|
| <b>Digital business strategy -&gt; IT capability -&gt; Dynamic capability</b>                        | 0.193        | 0.002           |
| <b>Digital business strategy -&gt; Dynamic capability -&gt; Firm performance</b>                     | 0.348        | 0.000           |
| <b>Digital business strategy -&gt; IT capability -&gt; Dynamic capability -&gt; Firm performance</b> | 0.116        | 0.003           |
| <b>Digital business strategy -&gt; IT capability -&gt; Firm performance</b>                          | 0.128        | 0.006           |

We analyze the structural model using 4999 sample bootstrapping to get p-values for significant values [36]. Five out of six hypotheses are proven to be significant with p-values of 0.05, equal to a 5% significance threshold, as shown in Figure 1. Following the results, digital business strategy impact has not directly impacted firm performance, but it affects firm performance via IT capability and dynamic capability (p-value < 0.05). In other words, digital business strategy promotes IT and dynamic capability, thereby improving firm performance.

## 5. Conclusion:

This study highlights the indirect and direct impact of digital business strategy on SMEs' performance and the mediating effects of IT capacity and dynamic capacities on this relation. The empirical data gathered in this study has significant implications for both SME management and policymakers. It is a fact that every organization strives for higher performance using a variety of diverse methods and resources. This research argues that digital business strategy is a noteworthy driver of a firm's performance. The shifting of business operations to digitalization is a significant trend in this digital age. The ever-evolving digital solutions have increased the market's unpredictability and speed of change. This requires a paradigm shift in how firms should be operated. The digital revolution became a primary focus in this regard. Organizations that successfully change digitally will take the lead in this new market. Notably, CEOs should understand that the emphasis of digital transformation is on strategies, not only technology.

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