



## **GOVERNMENT POLICY, IT INFRASTRUCTURE, BUSINESS MODEL INNOVATION, DIGITAL TRANSFORMATION, AND DYNAMIC CAPABILITY: CATALYSTS FOR FIRM PERFORMANCE ENHANCEMENT**

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### **Abstract**

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*Small and medium-sized firms (SMEs) encounter substantial obstacles in today's rapidly changing economic landscape, primarily due to their restricted resources and management capacities. This study utilises the resource-based view theory to investigate how government policies might assist SMEs in utilising their information technology (IT) infrastructure for digital transformation and enhancing firm performance. In the face of emerging technology and increased competition worldwide, SMEs must give utmost importance to innovation and the ability to adapt to achieve long-term success. The study, utilising data from 658 SME participants in Vietnam, highlights the significant impact of government policies on shaping IT infrastructure and emphasises the significance of innovation in bolstering dynamic capacities and overall business success. These findings provide valuable insights for managers and policymakers, indicating prospective areas for future research that have consequences for SMEs.*

**Keywords:** Firm Performance, SMEs, Government Policy, Digital Transformation, Business Model Innovation, Dynamic Capability

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## 1 INTRODUCTION

Organisations are continually challenged to adapt and thrive in a dynamic environment marked by unprecedented technological advancements and regulatory changes. Indeed, disruptive technologies of the fourth industrial revolution have given rise to several opportunities and obstacles for surviving and competing in the highly dynamic market. The digital era offers a favourable environment for businesses to operate with the aid of technological expertise. With the emergence of various digital solutions on the market, the potential for digital transformation has never been more significant (Bharadwaj et al., 2013; Li, 2020). New technologies, such as artificial intelligence, machine learning, big data and cognitive computing, have the potential to fundamentally transform the corporate landscape (Yang et al., 2017). The growing interest in digital transformation among scholars and practitioners has been highlighted by Obschonka & Audretsch (2020). Furthermore, Vial (2019) has emphasised the strategic relevance and process-centred character of digital transformation, which has been consistently discussed in diverse academic literature and practitioner discussions. Fernandez-Vidal et al. (2022) reported that most Chief Executive Officers now consider digital transformation a strategic and top priority for businesses.

Most executives and managers from various sectors believed that completing digital transformation would be necessary for their businesses (Nadkarni & Prügl, 2021). Although numerous organisations embrace technology-driven strategies, not all get the same advantages, hence overlooking significant chances (Li et al., 2022). Besides, Zaki (2019) highlights the capacity of digital transformation to generate novel business models, optimise processes, and elevate consumer experiences. Similarly, Sia et al. (2021) perceive this period as a catalyst for organisations to reassess the incorporation of information technology (IT) strategy with business strategy. The emergence of advanced IT and the resurgence of pre-internet technologies have reinvigorated its significance within the realm of organisational transformation (Nadkarni & Prügl, 2021; Pelletier & Raymond, 2023). The increased velocity of change brought about by digital technologies has resulted in higher environmental in-

stability, complexity, and uncertainty (Gupta & Bose, 2022). As a result, it affects business processes, operational routines, and organisational capacities. The increasing research interest in digital transformation in various contexts is a result of the digital transformation phenomenon (Malodia et al., 2023). Despite the growing interest, there are calls for more empirical and conceptual studies into how firms digitally transform (Warner & Wäger, 2019).

SMEs have recently been undergoing a significant transformation in their operations. To remain competitive and sustainable, they must adapt to the changes brought about by digitalisation (Tian et al., 2023). Nevertheless, they fall behind more prominent companies due to their lack of appropriate training and resources for investment in digitalisation (Eller et al., 2020; Hakaki & Nikabadi, 2022). Furthermore, having limited financial resources, SMEs frequently face restrictions on their ability to innovate, which limits their ability to succeed (Radzi et al., 2017). Digital transformation also revolutionises communications, retail, healthcare, medicine, agriculture, and manufacturing. Some companies are ahead, but most are falling behind (Mugge et al., 2020). Importantly, government policies are believed to foster IT infrastructure development and digital transformation within SMEs through financial incentives, regulatory support, and tax benefits (Mai et al., 2023). Prior studies have highlighted the significant role of government assistance in facilitating the growth and enhanced digital productivity of SMEs (Garzoni et al., 2020; Indrawati, 2020).

Dynamic capabilities often result from an organisation's growth, adoption of new business models, consistency, and adaption efficiency (Hareebin et al., 2018). Likewise, Dynamic capabilities are the ability to perceive, seize, and restructure internal and external resources to adapt to changing business conditions (Li et al., 2022). Moreover, strong dynamic capabilities enable enterprises, particularly their top management, to effectively orchestrate resources and competencies, anticipate market and technological changes, realign assets accordingly, and strategically collaborate with other enterprises for business ecosystem co-creation (Teece, 2020). Similarly, According to Martins (2023), dynamic capabilities (sensing, seizing, and transforming) have a notably positive impact on

SME performance, with digitalisation significantly enhancing the relationship between these capabilities and SME performance.

Businesses use an ecosystem of related businesses to create new products, provide services to clients, and develop innovative capabilities (Lee et al., 2017). To encourage innovative behaviour, the organisation relies on resources obtained from its external surroundings (Sahrom et al., 2016). SME innovation requires strategic innovation and business strategies that encourage creativity, risk-taking, and innovation. This requires a solid basis, cooperative networks, and a robust institutional structure to support their efforts (Halim et al., 2016).

While previous research has traditionally focused on the implementation of digital technologies in large corporations (Cenamor et al., 2019) or in innovative businesses, digital startups, and high-tech giants, studies that examine SMEs operating in traditional industries are scarce (Matarazzo et al., 2021). Nevertheless, SMEs are recognised as innovative and significant contributors to economic growth in many countries, such as Vietnam, where most local companies are small and medium-sized (Vo et al., 2022). Moreover, a more in-depth examination is required to understand how SMEs can utilise digitalisation to produce greater strategic values. There is a lack of comprehensive studies considering digital transformation and its causes and effects (Cenamor et al., 2019). Consequently, this study aims to bridge a research gap by addressing two inquiries:

**RQ1:** How do governmental policies contribute to advancing the evolution of business models and IT infrastructure within SMEs?

**RQ2:** How does the process of digital transformation and the introduction of innovative business models contribute to the development of a company's dynamic abilities and overall performance?

The research contributes to the existing literature by presenting a resource-based framework that scrutinises the interconnections and mediating mechanisms among IT infrastructure, business model innovation, digital transformation, and dy-

namic capabilities. This study strengthens the empirical evidence by showing that contemporary government policies, internal digital changes, and innovation affect firm performance in Vietnamese SMEs. These findings can serve as a valuable basis for shaping future regulatory and strategic decisions for governments, organisations, and enterprises.

## 2 THEORETICAL FRAMEWORK

### 2.1 The resource-based view theory

The Resource-Based View (RBV) describes a corporation as a collection of resources and capabilities that can be used to gain a competitive advantage (Varadarajan, 2023; Zahra, 2021). The primary tenet of this theory is that more fantastic firm performance is linked to firm-specific, scarce, and difficult-to-imitate resources (Barney, 1986; Bharadwaj, 2000; Varadarajan, 2023). Furthermore, company capabilities are a company's ability to utilise current resources to undertake tasks or activities (Gavronski et al., 2011; Salvato & Vassolo, 2018). Consequently, organisations may gain a competitive advantage by creating or acquiring organisational capabilities that are unique, non-substitutable, and inimitable (Harsch & Festing, 2020). Similarly, Varadarajan (2020) and Wu (2010) demonstrated that a company can use its capabilities to grow its resources to gain a competitive advantage and enhance its performance.

The RBV provides valuable insight into SME digital transformation. Each digital transformation stage has its resources, structure, strategies, measurements, and objectives. Specifically, digital transformation is multidisciplinary in nature, encompassing changes in strategy, management, structure, information technology, marketing, and supply chain (Verhoef et al., 2021). Additionally, it is an essentially strategic process (Vial, 2019; Warner & Wäger, 2019). Hence, it can be inferred that the digital transformation process involves a wide range of advanced resources and capabilities (Hanelt et al., 2021; Warner & Wäger, 2019), and investment in digital transformation generates new strategies and business models that facilitate the development of capabilities and resources to build competitive advantage (Gil-Gomez et al., 2020; Tekic & Koroteev, 2019), ultimately enhancing firm performance (Nadkarni & Prügl, 2021).

Despite several studies showing these resources' relevance to firm performance, the theory still needs to effectively explain the gap between firm performance and how these resources are transformed into capabilities (Kristoffersen et al., 2021).

## 2.2 Government policies

Government policies are pivotal in promoting IT infrastructure and digital transformation in SMEs (Dutta et al., 2020; Garzoni et al., 2020). Federal, state, and local governments extend funding, regulations, and incentives to qualifying SMEs and industries (Mai et al., 2023). These policies play a role in fostering business growth, enhancing resilience in the face of economic uncertainties, and driving economic expansion. They offer financial incentives, regulatory support, and tax benefits to improve technology accessibility and provide funded educational programs and training initiatives to boost SMEs' digital skills (Chege et al., 2020). Additionally, public-private partnerships provide guidance and support, ensuring SMEs' competitiveness in the evolving economic landscape, underscoring government policies' critical role in driving digitisation among these enterprises (Mpofu, 2023). Previous research regarding government support has proved how it can lead to numerous positive outcomes at the company level, including performance, globalisation, innovation, entrepreneurial orientation, and capability building (Faria et al., 2023). For instance, whereas the German government strongly encourages technological progress, notably by supporting the digitalisation of SMEs (Radicic & Petković, 2023), the Vietnamese government favouring state-owned enterprises (SOEs) tends to squeeze out the potential involvement of SMEs (Walsh et al., 2023). Indeed, government policy in Vietnam has shown a preference for both state-owned and foreign-owned enterprises over domestic SMEs (Walsh et al., 2023).

## 2.3 Firm performance

The RBV posits that firms achieve a competitive edge by acquiring tangible and intangible organisational assets that possess characteristics of value, rarity, inimitability, and non-substitutability (Barney, 1991). Previous studies have provided evidence of

these resources' significance in determining firm performance (Kristoffersen et al., 2021). Overall, firm performance encompasses the overall proficiency and effectiveness of a company in accomplishing its goals, typically evaluated through a range of financial and non-financial metrics, including profitability, market share, productivity, innovation, customer satisfaction, and employee engagement. The statement refers to the firm's capacity to generate value for its stakeholders, encompassing shareholders, employees, consumers, and the community (Rindova & Fombrun, 1999). Particularly, in this study, firm performance refers to a firm entity's overall success, efficiency, and effectiveness in attaining its goals, which is frequently measured using a variety of financial and non-financial criteria.

## 2.4 IT infrastructure

IT infrastructure has been proposed to contribute greatly to the digital transformation process. IT infrastructure is a component of IT capabilities (Lu & Ramamurthy, 2011), consisting of a firm's architecture, data management services, and application platforms, and is essential to creating a solid communication and integration system both within and outside organisational boundaries (Ko et al., 2022; Li & Chan, 2019; Tallon et al., 2019). Specifically, government policy encourages the accessibility of IT infrastructure by offering these incentives, supporting technical breakthroughs, and assisting businesses in keeping up with growing digital trends ((Mpofu, 2023). Similarly, Government policies can help SMEs enhance IT infrastructure, helping the economy and technical advancement (Mai et al., 2023). Based on the above arguments, the following hypothesis is proposed:

**H1:** Government policies significantly foster the development and accessibility of IT infrastructure.

## 2.5 Business model innovation

The concept of business model innovation (BMI) BMI refers to the intentional process of restructuring the fundamental elements that drive the business value proposition for the company, its customers, and other stakeholders (Ciampi et al.,



2021). Moreover, corporate strategies have concerned a critical component of digitalisation and digital transformation (Bharadwaj et al., 2013; Ko et al., 2022), which suggests a link between digital transformation and BMI. For example, companies that use digital technology may consider data streams as crucial and use them to aid their digital transformation efforts (Correani et al., 2020; Dąbrowska et al., 2022), which contrasts with traditional business model frameworks (Pigni et al., 2016). Therefore, digital technologies are fundamentally linked to strategic changes in business models, leading to business model innovation.

**H2:** Government policies positively impact business model innovation.

IT infrastructure can boost a company's product, process, methodology, capability, and business model innovation (Cassia et al., 2020). Previous research has classified the role of IT in businesses into strategic, operational, and infrastructural categories, with a significant emphasis on its connection to innovation (Tallon et al., 2019). IT infrastructure implementation demands major organisational processes and investment adjustments to preserve economic and financial sustainability and competitiveness (Mauerhoefer et al., 2017; Mohamad et al., 2017). Therefore, this paper suggests that implementing IT infrastructure is positively related to facilitating the process of BMI, which leads to the following hypothesis:

**H3:** IT infrastructure has a significant impact on business model innovation.

## **2.6 Digital transformation, dynamic capability, innovation and performance**

Technology is pivotal in driving digital transformation, opening avenues for innovative business opportunities and strategic initiatives (Dąbrowska et al., 2022). Particularly, companies equipped with advanced IT infrastructure can spearhead digital transformation by revamping and envisioning existing business processes and transforming traditional products, services, and customer offerings into digital solutions (Gong & Ribiere, 2021). Furthermore, the organisation excels in modern IT infrastructure, result-

ing in higher-quality products than competitors (Rasool et al., 2023). Besides, the drive for digital transformation is fuelled by the notion that new technologies have tremendous potential for driving innovation and competitive advantage (Radicic & Petković, 2023). According to Scuotto et al. (2021), SMEs must cultivate internal digital capabilities to adapt to market dynamics swiftly. Hence, they can actively contribute to their innovation performance and achieve growth in an ever-evolving digital competitive landscape. Consequently, the following hypothesis ensues:

**H4:** IT infrastructure has a significant impact on digital transformation.

Indeed, digital technology, social media, and the Internet would boost SMEs' innovation and help them grow locally and globally (Cenamor et al., 2019). Additionally, SMEs can gain a competitive edge through organisational digitalisation (Dutta et al., 2021). Particularly, many developing countries' SMEs lack digital literacy. A significant number of SMEs in developing nations have a deficiency in digital literacy. In the absence of digital technology, SMEs would lack awareness of the necessity for digital transformation, leading to a deficiency in digital preparedness and capability (Warner & Wäger, 2019). Although digital technologies are essential for the success of SMEs, many are hesitant to adopt these solutions due to their limited capabilities and resources (Kraus et al., 2022). Generally, digital transformation enhances innovative activities in the workplace. According to Kopka & Fornahl (2024), SMEs experience increased productivity with Artificial intelligence (AI) integration at the productivity frontier, contrary to the leapfrogging hypothesis. However, evidence suggests that larger latecomer firms benefit more from AI adoption in terms of innovation, illustrating a divergent impact on productivity and innovation growth.

Hence, the following hypothesis is proposed:

**H5:** Digital transformation has a significant impact on business model innovation.

Dynamic capabilities are the ability to perceive, seize, and restructure internal and external resources to adapt to changing business conditions (Li et al., 2022). The framework includes creating, im-

plementing, and preserving competencies and resources to respond to business changes. To manage unforeseen changes in the dynamic corporate world, digital sensing requires scanning, learning, comprehending, identifying, developing, co-creating, and analysing technical potential (Teece, 2014). Moreover, strong dynamic capabilities enable enterprises, particularly their top management, to effectively orchestrate resources and competencies, anticipate market and technological changes, realign assets accordingly, and strategically collaborate with other enterprises for business ecosystem co-creation (Teece, 2020). However, little research has examined how digital transformation affects dynamic capabilities. Therefore, this study proposes a hypothesis based on these findings:

**H6:** Digital transformation has a significant impact on dynamic capability.

Dynamic capabilities support business models in the sense that an agile and responsive firm can adopt, trial, and refine new and revised business models quickly (Lüdeke-Freund, 2020). Similarly, the mastery of creating and modifying business models is an essential foundation for establishing dynamic capabilities (Correia et al., 2021). Effective business model re-engineering skills are necessary to facilitate efficient seizing, promote strong dynamic capabilities that free resources for future growth, and align strategic outcomes with make/buy decisions. Besides, innovation ecosystems are a foundation for dynamic organisational capabilities (Guerrero & Siegel, 2024). However, the existing research primarily focuses on the one-sided impact of dynamic capabilities on BMI (Warner & Wäger, 2019). Therefore, to address this research gap, the study proposes the following hypothesis:

**H7:** Business model innovation has a significant impact on dynamic capability.

The strategic utilisation of digital technologies significantly impacts both innovation capacity and growth for companies, particularly for SMEs, highlighting the enduring importance of ICT as a critical success factor for SMEs' growth (Scuotto et al.,

2021). Digital transformation, through improved automation, lower operating costs, and increased customer satisfaction, can positively impact overall performance (Dąbrowska et al., 2022; Li, 2020).

Firm performance is enhanced by the reduced expenses related to coordination, transactions, and agency that come with integrating digital transformation across suppliers and partners in the value chain (Arji et al., 2023). Likewise, leading SMEs demonstrate the benefits of digital integration through their approach to synchronising data, ideas, and information to enhance customer-side business processes (Correani et al., 2020; Tekic & Koroteev, 2019). This paper posits the following hypothesis as a result:

**H8:** Digital transformation has a significant impact on firm performance.

Notably, researchers have also attempted to investigate the impact of BMI on firm performance in recent years. Innovation has been connected to various beneficial outcomes, including market uncertainty adaption (Vrontis & Christofi, 2021) and enhanced stakeholder relationships (Leonidou et al., 2020). Moreover, companies with superior financial performance placed double the amount of attention on BMI compared to underperforming companies (Bashir, 2023). Similarly, previous studies examined the correlation between BMI and firm performance and found that successful companies place twice as much importance on BMI as underperforming companies (Bhatti et al., 2021; Lüdeke-Freund, 2020). Based on such argumentation, the following hypothesis is proposed:

**H9:** Business model innovation has a significant impact on firm performance.

According to Martins (2023), dynamic capabilities (sensing, seizing, and transforming) have a notably positive impact on SME performance, with digitalisation significantly enhancing the relationship between these capabilities and SME performance. Meanwhile, dynamic capabilities are a meaningful way to analyse the total influence on a firm's growth (Mathivathanan et al., 2017). Likewise, dynamic capabilities play an essential role in

entrepreneurial resources for increasing the firm performance of start-ups while reliably mediating the relationship between resources and performance (Wu, 2007). Additionally, product development reconfiguration capability was favourably associated with firm performance and performance enhancements over time (Qiu et al., 2020). However, success is not always guaranteed, even if SMEs can collect or replenish massive resources in a dynamic market (Sharma et al., 2023). Without dynamic capabilities, business resources would not transfer into firm performance (Bashir, 2023). Additionally, to enhance the impact of dynamic capabilities on SME performance, digitalisation strategies, including consistent incorporation of digital analytics, operations, marketing and sales, ecosystem, and products and services, should be integrated into the transforming process (Martins, 2023). Based on these arguments, the last hypothesis is suggested:

**H10:** Dynamic capability significantly influences firm performance.

Figure 1 depicts the research model with hypothesis development. The figure includes six essential elements, such as IT infrastructure, digital transformation, government policy, business model innovation, dynamic capabilities, and company performance.

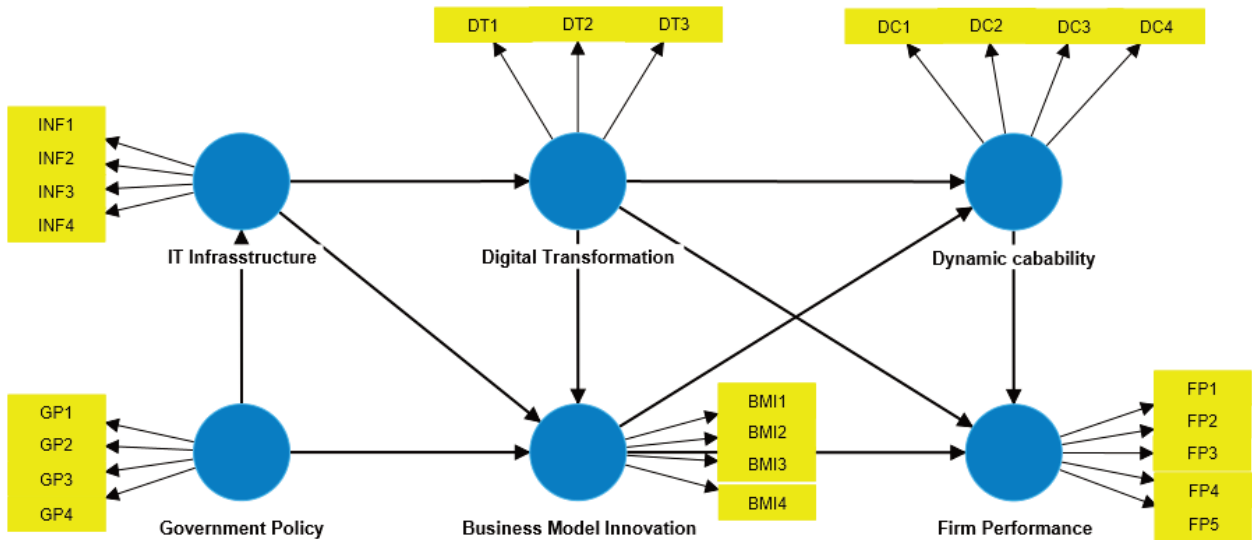
### 3 METHODOLOGY

#### 3.1 Data collection

The research predominantly gathered data through the distribution of questionnaires. To enhance the applicability of the measurements in the Vietnamese context, the items were initially translated into Vietnamese and subsequently revised by two social science specialists. Subsequently, the questionnaire was rendered into English once again to present updated versions of previous measurements while guaranteeing the preservation of the original meanings. Moreover, the final version of the questionnaire was modified after conducting a pilot test with 42 respondents and one group discussion with five company managers and three local government officials.

The questionnaire was disseminated via snowball and convenience sampling methods. By subdividing the districts' target SMEs by geography and population density, the authors aimed to avoid selection bias. With local authorities' help, the authors contacted several top managers from a list of businesses in each district. Participants were requested to volunteer. The managers learned about the study's goals, were assured of their privacy, and were told there were no wrong answers. Those who cannot answer a question can stop at any time.

Figure 1: Research framework



Source: Created by the authors

Between March and August 2023, a total of 950 questionnaires were distributed to executives of SMEs and then shared with other managers. It was anticipated that the board management team and managers would complete the survey. A total of 880 samples were collected, out of which 658 were deemed suitable for further investigation. Consequently, Table 1 presents more details regarding the characteristics of the sample.

### 3.2 Measurement

The primary variables concerning the literature were measured in combination with the practices of the examined firms to ensure the research’s validity and reliability. The participants were asked to assess their degree of agreement with each item’s measurement using a 5-point Likert scale, ranging from “1 = strongly disagree” to “5 = strongly agree.”

Table 1: Characteristics of SMEs

	Number of respondents (N=659)	Percentage (%)
<i>Industry of operation</i>		
Production	336	51.0
Shipping & Logistics	123	18.7
ICT companies	89	13.5
Food & drinks	78	11.8
Others	32	5.0
<i>Types of business</i>		
Limited Liability Company	325	49.3
Joint Stock Company	252	38.2
Foreign Invested Enterprise	51	7.9
State-owned Firms	30	4.6
<i>Job title</i>		
Executive Managers	340	51.6
Board of Company Council	145	22.0
Senior Managers	133	20.2
Board of Directors	40	6.2
<i>Number of employees</i>		
Less than 20	344	52.2
20 – 50	111	16.8
51 – 99	60	9.1
100 – 200	62	9.4
More than 200	82	12.4
<i>Operation time of business (years)</i>		
Less than 5	191	29.0
5 – 10	193	29.3
11 – 20	173	26.3
More than 20	102	15.5

Source: Created by the authors



First, the four-item measurement scale was adapted from Wong et al. (2020) to measure government policy. Second, IT infrastructure with four items was adapted from Lu and Ramamurthy (2011). Third, the three-item scale for measuring digital transformation was adapted from Thuy (2021). Fourth, as for the construct of business model innovation, the four items were adapted from Ciampi et al. (2021). Fifth, four items were adapted from Wu (2007) to measure dynamic capabilities. Finally, the five-item scale used to measure firm performance has been adapted from Tajvidi and Karami (2021). The participants were requested to evaluate the performance of their enterprise in relation to its growth and profitability. Details of the measurement scale with a total of 24 items are presented in Table A1 in the Appendix.

### 3.3 Data analysis approach

Because of its efficiency and versatility, the Partial Least Squares Structural Equation Modelling (PLS-SEM) technique is employed for analysis. It is frequently utilised in the social sciences and fits complicated models with intricate structures and many construct-level interactions (Ali et al., 2018; Han et al., 2018; Joseph et al., 2022). As this study seeks to assess interactions across multiple dimensions in the new theoretical model, PLS-SEM helps investigate the causal links between distinct independent and dependent components, prioritising the support or rejection of hypotheses.

## 4 RESULTS AND DISCUSSIONS

### 4.1 Hypothesis testing results.

The confirmatory factor analysis results in Table 2 indicate strong convergent and discriminant validity, as evidenced by all item factor loadings surpassing the 0.7 threshold. Furthermore, the average variance extracted (AVE) exceeds 0.5. Moreover, Cronbach's alphas range from 0.855 to 0.930, well above the 0.7 benchmark. These outcomes strongly support the reliability and convergent validity (Caldeira & Kastenholz, 2018; Henseler et al., 2012).

Furthermore, the research followed the Heterotrait - Monotrait Ratio (HTMT) criterion to assess discriminant validity. The HTMT ratio between the average

item correlations across different constructs and the average correlations within a specified construct should not exceed 0.85 (Henseler et al., 2012). In Table 3, all values fall within this range, indicating that the criteria for discriminant validity have been satisfied.

The structural model accounted for 8.5% of the variance in IT infrastructure ( $R^2 = 0.085$ ), 43.1% of the variance in digital transformation ( $R^2 = 0.431$ ), 32.6% of the variance in business model innovation ( $R^2 = 0.326$ ), 63.9% of the variance in dynamic capability ( $R^2 = 0.639$ ), and 56.7% of the variance in firm performance ( $R^2 = 0.567$ ). Specifically, the standardised root mean square residual (SRMR) stands at 0.054, which falls below the threshold of 0.08, indicating a favourable fit (Hair et al. 2017).

Table 4 and Figure 2 present the research hypotheses and the analysis outcomes. All hypotheses were supported at a significant level.

### 4.2 Mediation effect

Furthermore, mediation tests were conducted to examine whether business model innovation and digital transformation indirectly impact firm performance, with dynamic capability acting as a mediating factor. The findings in Table 5 indicate positive indirect correlations between business model innovation and firm performance as well as digital transformation and firm performance, both partially mediated by dynamic capability.

## 5 IMPLICATIONS AND CONCLUSION

### 5.1 Discussion

This study affirms the positive effects of government policy on enhancing IT infrastructure. It also confirms the positive influence of IT infrastructure on driving digital transformation. Moreover, the study establishes the constructive impacts of government policy, IT infrastructure, and digital transformation on fostering business model innovation and the positive effects of digital transformation and business model innovation on enhancing dynamic capability, ultimately resulting in improved firm performance. The RBV theory effectively explains how digital transformation and IT advancement enable firms to surmount constraints in capital and resources, thereby accelerating growth and fostering positive performance.

*Table 2: Reliability and Convergent Validity*

Constructs	Items	Loadings	Alpha	rho_A	CR	AVE
<b>Business Model Innovation (BMI)</b>	BMI1	0.885	0.921	0.922	0.944	0.809
	BMI2	0.898				
	BMI3	0.926				
	BMI4	0.887				
<b>Dynamic Capability (DC)</b>	DC1	0.906	0.926	0.926	0.947	0.818
	DC2	0.912				
	DC3	0.890				
	DC4	0.910				
<b>Digital Transformation (DT)</b>	DT1	0.937	0.939	0.940	0.961	0.892
	DT2	0.959				
	DT3	0.937				
<b>Firm Performance (FP)</b>	FP1	0.866	0.900	0.903	0.927	0.717
	FP2	0.858				
	FP3	0.874				
	FP4	0.873				
	FP5	0.756				
<b>Government Policy (GP)</b>	GP1	0.761	0.855	0.870	0.902	0.697
	GP2	0.858				
	GP3	0.888				
	GP4	0.826				
<b>IT Infrastructure (INF)</b>	INF1	0.900	0.915	0.917	0.940	0.798
	INF2	0.870				
	INF3	0.895				
	INF4	0.908				

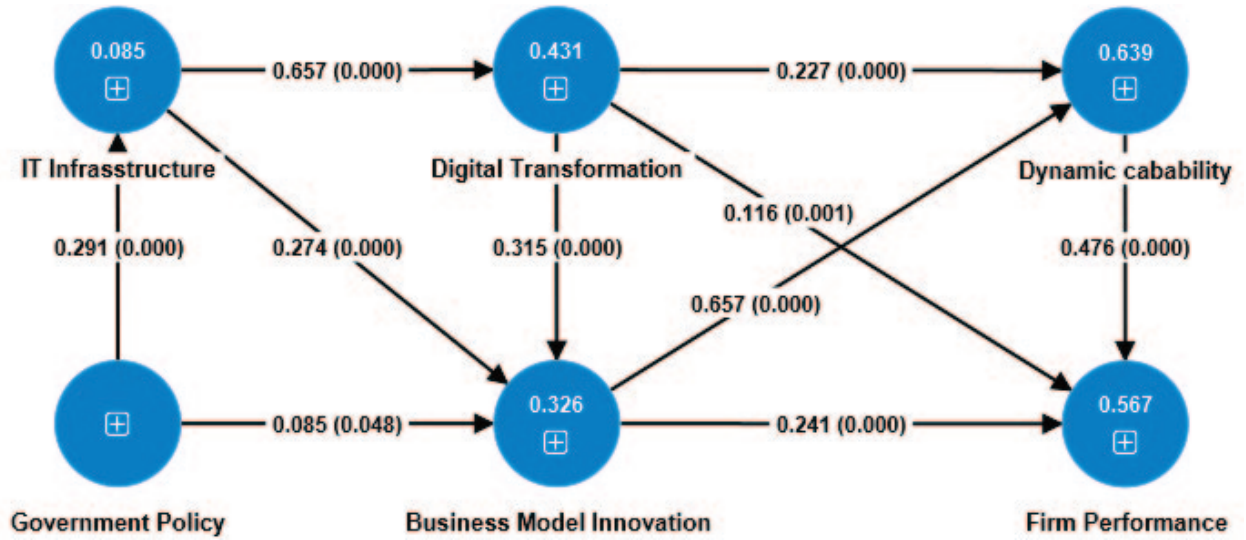
Source: Created by the authors

*Table 3: Heterotrait - Monotrait Ratio*

	BMI	DT	DC	FP	GP	INF
BMI						
DT	0.561					
DC	0.840	0.611				
FP	0.735	0.558	0.797			
GP	0.298	0.359	0.261	0.182		
INF	0.549	0.707	0.641	0.583	0.324	

Source: Created by the authors

Figure 2: Testing results



Source: Created by the authors

Table 4: Path coefficients

Hypotheses	$\beta$	T statistic	P values	Results
Business Model Innovation → Dynamic capability	0.657	23.078	0.000	Supported
Business Model Innovation → Firm Performance	0.241	5.112	0.000	Supported
Digital Transformation → Business Model Innovation	0.315	6.362	0.000	Supported
Digital Transformation → Dynamic capability	0.227	6.721	0.000	Supported
Digital Transformation → Firm Performance	0.116	3.354	0.001	Supported
Dynamic capability → Firm Performance	0.476	10.167	0.000	Supported
Government Policy → Business Model Innovation	0.085	1.978	0.048	Supported
Government Policy → IT Infrastructure	0.291	6.439	0.000	Supported
IT Infrastructure → Business Model Innovation	0.274	5.639	0.000	Supported
IT Infrastructure → Digital Transformation	0.657	22.206	0.000	Supported

Source: Created by the authors

Table 5: Mediation test results

Specific indirect effects	Estimates	T statistic	P values	Results
Business Model Innovation → Dynamic Capability → Firm Performance	0.313	9.133	0.000	Supported
Digital Transformation → Dynamic Capability → Firm Performance	0.108	5.591	0.000	Supported

Source: Created by the authors

Echoing prior research (Faria et al., 2023; Mai et al., 2023; Mpofu, 2023), government policy support significantly influences IT infrastructure, fostering business model innovation directly and indirectly. Financial incentives and regulatory frameworks, coupled with digital transformation initiatives, create an environment conducive to technological advancement. This prompts businesses to invest in cutting-edge technologies, forming a strong foundation for innovation in products and processes. Besides providing technical expertise and resources, government support nurtures an innovation-friendly corporate environment, encouraging companies to leverage advanced IT capabilities for value delivery, process optimisation, and responsiveness to market demands. Moreover, the findings affirm the positive impact of IT infrastructure on digital transformation and innovation, aligning with previous studies (Thuy, 2021). A well-developed IT structure facilitates the seamless integration of advanced technologies like cloud computing, big data, and AI, empowering organisations to expand and make informed decisions through data processing. Proficient IT infrastructure positions organisations for successful digital transformation, offering new strategies and growth opportunities. Additionally, digital transformation supports existing firms, enhancing competitiveness and sustainable growth. Enhanced connectivity and communication fostered by a reliable IT infrastructure facilitate collaboration, accelerating the implementation of innovative ideas and solutions.

The research confirms that digital transformation significantly influences business model innovation, dynamic capability, and firm performance, aligning with earlier studies (Ciampi et al., 2021; Eiteneyer et al., 2019). It fosters innovation by creating new revenue streams and innovative customer approaches. Successful digital transformation drives businesses to innovate, create new products, and gain a competitive edge through digitised operations for market analysis and adaptive organisational structures, ensuring sustained profitability. Enhanced efficiency, agility, and customer-centricity improve firm performance and competitive advantage. Furthermore, in line with prior research (Jaidi et al., 2022), this study underscores the substantial impact of innovativeness and dynamic capability on firm performance. It emphasises dynamic capability mediating

between business model innovation and firm performance. Innovation refines processes, creates value, and accesses intangible assets. Dynamic capability grants firms' agility, adaptability, and innovative capacity to thrive in evolving business landscapes, leading to enhanced performance, sustained competitive advantage, and improved customer satisfaction.

## 5.2 Theoretical implications

Although business model innovation and digital transformation have become a benchmark for surviving in a competitive marketplace (Anning-Dorson & Nyamekye, 2020; Rupeika-Apoga et al., 2022), previous research has mainly shown identifying multiple influencing factors rather than delving into studying correlations and intermediate effects. This paper provides a valuable theoretical addition by clarifying the interconnections between government policy, IT infrastructure, digital transformation, business model innovation, dynamic capabilities, and firm performance. This study highlights the beneficial effects of government policy and IT infrastructure in promoting digital transformation, which in turn encourages innovation in business models. Expanding upon the RBV paradigm, the study emphasises the role of digital transformation and IT progress in helping SMEs overcome limitations in resources and expedite their growth, which is consistent with earlier research.

Furthermore, the theoretical contribution of this study lies in its exploration of the relationship between firm performance and digital transformation initiatives, particularly within the context of SMEs operating in dynamic economic markets, with Vietnam as a focal point. The research emphasises the significance of government engagement in creating a favourable environment for digital innovation and knowledge exchange among enterprises by analysing correlations in this particular context. This study highlights the need to provide incentives and promote active government involvement in business platforms to enable the acquisition of knowledge and the integration of digital technology, ultimately leading to improved firm performance. Moreover, the study highlights the importance of providing specialised direction to tackle the distinct obstacles encountered by SMEs, especially when it

comes to managing the intricacies of digital transformation during the epidemic and following economic rebound. The study enhances the existing literature by offering valuable insights into practical strategies for SMEs to adapt successfully and prosper in the changing business environment. This is achieved through a practical problem-solving approach and analysis of crucial factors that influence firm performance during digital transformation.

### 5.3 Practical implications

First, based on the research findings, it is recommended that the Vietnamese government proactively improve the IT infrastructure designed specifically for SMEs. This can be accomplished by implementing measures like tax incentives, initiatives for technology development, and programmes focused on enhancing workforce skills. Businesses can improve their global competitiveness by utilising these strategies. Moreover, it is advised that corporate executives take advantage of the existing government incentives, streamline resource allocation, and participate in collaborative platforms to promote the development of creative business models that can successfully adapt to changing market conditions.

Second, the incorporation of AI applications significantly impacts business operations, emphasising the need for SME owners to embrace innovative models, efficiently integrate data, and prioritise customer-centric strategies to enhance competitiveness. It is recommended that SMEs focus on investing in the growth of their workforce, keep clear and open financial records to make it easier to obtain financial assistance, and actively pursue strategic collaborations across different platforms to take advantage of new opportunities.

Finally, the findings provide SME managers with actionable insights for optimising firm performance through sophisticated resource allocation. Understanding which resources significantly impact performance enables targeted investments, such as cultivating a positive workplace culture, to improve performance. Policymakers can use these findings to build policies that promote resource development, focusing on areas such as digital transformation and dynamic capacities to help SMEs flourish.

In managerial decision-making, taking into account unique resources, such as financial assets, is critical for prioritising activities to improve performance. Moreover, SMEs can use the study's findings to examine their competitive positioning by recognising and using unique resources, such as new business models, to distinguish themselves in the market.

### 5.4 Limitations and future studies

The study draws critical theoretical implications and specific business applications but lacks comprehensive insights, necessitating further research. It doesn't illustrate the cause behind the weak empirical link between government policies and business model innovation. While documenting the study's general model and variable correlations, it falls short in detailing their influences and interdependencies. Future studies should delve deeper into these relationships, offering more applicable insights to guide SMEs in formulating relevant and practical business strategies. Additionally, future research could propose diverse government policies to bolster economic growth, primarily supporting SMEs. The study broadly outlines factors influencing SME performance in the digital transformation era, enabling business leaders to chart development paths, leverage government support, and innovate business models. However, it overlooks differences among SME categories—ownership structure, industry sector, geography, and business models—that directly impact study outcomes. Future investigations should meticulously explore technological advancements crucial for successful digital transformation, offering valuable lessons for SMEs. Recognising these businesses' limitations in human resources, resources, and access to optimal IT infrastructure, the study identifies pivotal opportunities and orientations beneficial for SME executives.

### 5.5 Conclusions

The study emphasises the critical link between government policies influencing IT infrastructure and the subsequent impact on SMEs' digital transformation, fostering enhanced firm performance and dynamic capabilities. Recommendations urge active government involvement through support



policies, tax incentives, startup initiatives, training, and international trade engagement to fortify SMEs for contemporary integration and development. Notably, while government policies don't directly influence business model innovation, bolstering IT infrastructure is pivotal, fostering intrinsic factors that drive such innovation. Highlighting the crucial role of digital transformation for SMEs, the study

underscores its positive influence on innovating business models, integrating digitisation programs, and facilitating data analysis, thereby enabling more optimal business strategies and product development. This transformation indirectly enhances the company's dynamic capacity and human resources, culminating in improved firm performance, growth, and a strengthened financial standing.

## EXTENDED SUMMARY/IZVLEČEK

Majhna in srednje velika podjetja (MSP) se v današnjem hitro spreminjajočem se gospodarskem okolju soočajo z velikimi ovirami, predvsem zaradi omejenih virov in zmožnosti ravnateljstva. Ta študija uporablja teorijo virov za raziskovanje, kako lahko vladne politike pomagajo MSP pri izkoriščanju njihove informacijske tehnologije (IT) za digitalno preobrazbo in izboljšanje poslovne uspešnosti. Glede na hitro razvijajočo se tehnologijo in povečano konkurenco po svetu morajo MSP dati prednost inovacijam in sposobnosti prilagajanja za doseganje dolgoročnega uspeha. Študija, ki temelji na podatkih 658 MSP udeležencev v Vietnamu, poudarja pomemben vpliv vladnih politik na oblikovanje IT infrastrukture in izpostavlja pomen inovacij pri krepitvi dinamičnih zmožnosti in splošnega poslovnega uspeha. Ti izsledki nudijo dragocene vpoglede za menedžerje in oblikovalce politik ter nakazujejo potencialna področja za prihodnje raziskave, ki imajo posledice za MSP.

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## Appendix

Table A1: Measurement

Construct (denote)/(Source)	Item	Measurement scale
Government Policy (GP)/ (Wong et al., 2020)	GP1	The government or competent agencies provide financial assistance for digital transformation.
	GP2	The government implements relevant policies to accelerate digital transformation.
	GP3	The use of digital transformation has legal backing.
	GP4	The laws and regulations in place today are adequate to protect the application of digital transformation.
IT Infrastructure (INF)/ (Lu & Ramamurthy, 2011)	INF1	Data management services and architectures (for example, databases, data warehousing, data availability, storage, accessibility, sharing, and so on).
	INF2	Network communication services (for example, connectivity, dependability, availability, LAN, WAN, and so on).
	INF3	Portfolio of applications and services (e.g., ERP, ASP, reusable software modules/components, new technologies, etc.)
	INF4	IT facility operations/services (for example, servers, large-scale processors, performance monitors, and so on).
Digital Transformation (DT)/ (Thuy, 2021)	DT1	Our enterprise is pioneering new business processes based on technology such as big data, analytics, cloud, mobile, and social media platforms.
	DT2	Our enterprise is incorporating digital technologies such as social media, big data, analytics, cloud, and mobile technology to promote change.
	DT3	Our business operations are evolving toward the utilisation of digital technologies such as big data, analytics, cloud, mobile, and social media platforms.
Business Model Innovation (BMI)/ (Ciampi et al., 2021)	BMI1	When necessary, we are able to carry out massive internal reconfigurations to enhance our overall value proposition to our customers.
	BMI2	When we sense an opportunity, we are quick at re-organising our operating processes.
	BMI3	When necessary, we are able to reorganise our partner network to improve our value proposition to our customers.
	BMI4	New opportunities to serve our customers are quickly understood.
Dynamic Capabilities (DC)/ (Wu, 2007)	DC1	Our enterprise has the capabilities to integrate resources effectively.
	DC2	Our enterprise has the capabilities to reconfigure resources effectively.
	DC3	Our enterprise has the capabilities to learn fast.
	DC4	Our enterprise has the capabilities to respond to the rapidly changing environment.
Firm Performance (BP)/ (Tajvidi & Karami, 2021)	FP1	Our enterprise has been able to develop a sustainable business in the past three years.
	FP2	Our enterprise has a good reputation in the industry.
	FP3	Our enterprise's customers appreciate the company's product/service quality.
	FP4	Our enterprise has achieved its sales target over the past three years.
	FP5	Our enterprise reached the profit target over the past three years.

Source: Created by the authors