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# A Journey of Digital Transformation of Small and Medium-Sized Enterprises in Vietnam: Insights from Multiple Cases

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## Abstract

This study aims to investigate the status quo and identify the challenges and benefits of the digital transformation in the context of small and medium-sized enterprises (SMEs) in Vietnam. The six participating SMEs were purposely contacted, and they were either nominated for, or received the Vietnam Digital Awards in 2018, 2019 and 2020, which were held by the Vietnam Digital Communication Association (<http://en.vdca.org.vn/>). A qualitative research method is adopted, using a semi-structured interview method and a theoretical triangulation of legitimacy, stakeholder and stewardship theories to facilitate the investigation. This research tries to identify the current challenges and benefits for digital transformation of SMEs in Vietnam, based on perception and experience from business leaders and managers from six SMEs in Vietnam. The findings of this study reveal that besides the recent challenges for digital transformation, participants also experienced and shared their perspectives regarding the benefits received from the digital transformation journey of their organization, which varied from (i) improve operational as well as business functions; (ii) liberate staffs and managers from daily work and allows them to focus on decision-making tasks; (iii) enable solutions to deal with consequences from the COVID-19 pandemic; (iv) enhance value creation process; and (v) help firms to align with the global business standards.

**Keywords:** Digital Transformation, Innovation, SMEs, Vietnam

**JEL Classification Code:** O32, O33, L23

## 1. Introduction

The business environments and organizational contexts of developing countries are different from those of the developed countries. While organizations in developed countries are more concerned about sustainable development, enterprises in developing countries favor the value creation for themselves, their shareholders, and the communities in the place where they operate. Recently, many advanced technologies have been introduced and adopted with the aim of improving business capabilities, enhance business models, and facilitate sustainability features for businesses

(Boratyńska, 2019). The application of these advanced technologies in the organizational context relates to the digital transformation (hereafter DT). The DT process in business is related to the organizational and strategic planning of large firms and multinational corporations due to the requirements for huge financial investment and talent management available as well as the flexibility, and a lean decision-making process that is affordable for SMEs (Crupi et al., 2020).

In developed countries, DT is the concept that is widely adopted in the multinational corporations or large companies with the aim of upgrading corporate information systems that enable managers and staff members to focus on decision making (Singh & Hess, 2017), promote a new way to communicate continuously with the stakeholders and customers (Gölzer & Fritzsche, 2017), and improve productivity by employing new technologies such as IoT, AI and big data analysis towards the enhancement of the cleaner production agenda and allowing an environmentally-friendly operational strategy (Ardanza et al., 2019; Nguyen, L. T. Q et al., 2021). DT in developing countries like Vietnam, on the other hand, aims to deliver advanced technological

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development, bring new value and market opportunities (Crupi, et al., 2020), redefine new business models (Frank et al., 2019), and as a result, facilitate the value creation for businesses (Boratyńska, 2019). While most of the research in DT has been conducted in the context of a large corporations in developed countries, studies are scarcely focused on the domestic and foreign-invested SMEs in developing countries. The SMEs provide an exciting research context to study DT in the real business environment of the developing countries, as they represent over 90% of the enterprises of developing countries and employ between 60% to 70% of human resources in the economy (Poole, 2018).

In order to highlight the status quo and identify barriers and enablers for Vietnam SMEs regarding the DT, a theoretical triangulation of legitimacy theory, stakeholder theory and stewardship theory, proposed by (Bui, 2021) is employed. While the legitimacy theory allows to understand the legitimacy of the DT process, the stakeholder theory highlights the supports of obstacles for the DT process from the perspective of the relevant stakeholders. Furthermore, stewardship theory allows understanding of whether the DT process came from “the intrinsic values” or “a desire to do what is best for an organization” or not (Davis et al., 1997, p. 25). Together, this theoretical triangulation perspective highlights barriers and enablers for the DT process of SMEs from both internal and external perspectives of SMEs in Vietnam. Besides, qualitative research design and semi-structured interview approach are employed as the main data collection approach in this study. Our paper offers both practical and theoretical contributions to the literature of DT in SMEs by relying on experience and perception from the leader of SMEs regarding their DT process in Vietnam.

The rest of this study is organized as follows: section 2 introduces the literature background of DT in SMEs, section 3 describes the theoretical framework and research methodology, section 4 describes the findings, section 5 provides discussions and finally, section 6 outlines the implications of the paper.

## 2. Literature Review

Given the emergence in the use of advanced technologies and the promised benefits in recent years, the concepts of Industry 4.0 have been promoted from the initiative introduced by the German government and have received support from standard setters, practitioners and academia (Gölzer & Fritzsche, 2017; Hoang C. V et al., 2021). Due to the advanced digital platform and applications enabled by the internet, AI and big data analytics, connectivity platforms, the international business environment and enterprises have faced a transformation and change towards the scenario where devices, applications, products and services offered in an organization can be linked to adapt and respond to the

market changes and expectations of the customers (Harris et al., 2018; Moldabekova et al., 2021). To be successful in the DT journey, the organization needs to be prepared to face disruptions to their routine activities, processes and successful communications with stakeholders to maintain sufficient support. Those processes typically last for several years and involve the upgrade of large-scale information management systems, technologies and applications (Alibekova et al., 2020; Crupi et al., 2020). The DT journey also requires significant human, financial, intellectual and technical capabilities; these capabilities also need to be aligned to enable consistent strategic transformation (Jang et al., 2019; Hoang et al., 2022). Finally, the business leaders, who are also champions in DT, are also considered as being fundamental drivers for identifying future direction, determining the appropriate competitive position in the digital era, convincing key stakeholders to support DT, and performing the decision-making during the transformation.

DT in SMEs relates to the digitalization of the organizational structure and operation process. Besides, the needs for a successful DT call for the development of innovative business and organizational culture that allows changes in the digital intensity and management of transformation intensity and also their timely adaptation (Frank et al., 2019; Bui, 2021). While the business leaders in large firms and corporations start to understand the obstacles and benefits resulting from the DT, most of the SMEs which had focused on niche markets, are facing struggles and difficulties regarding both digital capabilities and transformation management intensity (Gölzer & Fritzsche, 2017). The DT can help SMEs to leverage and upgrade their operational capability, management and decision-making systems that allow SMEs to participate in the global market (Crupi, et al., 2020). However, due to the notable barriers such as the lack of sufficient resources for transformation, financial investment and human resources, DT in SMEs is less likely to succeed. Nonetheless, there is another type of SME in developing countries, and these receive directed investment from the foreign multinational corporations, also known as the foreign-invested SMEs. Compared to the regular domestic SMEs, foreign-invested SMEs have inherited technological advancement as well as financial investment from parent companies; thus, they are expected to reach successful DT more easily than the domestic SMEs (Boratyńska, 2019). While most of the existing literature focuses on DT in large firms in developed countries, and only marginally in developing countries, this is the gap that our study intends to cover. Our research intends to highlight and compare DT in both domestic and foreign-invested SMEs in the context of Vietnam, a developing country.

Several theories have been adopted to enhance the understanding of DT, mostly relating to the innovation management and organization change theories (Majchrzak

et al., 2016). One of the most famous theories that has been adopted is the legitimacy theory (Battilana & Lee, 2014), which suggests that organizations seek to make sure that all of their practices, including DT, are within the bounds and norms of the society. In other words, legitimacy theory implies that the activities conducted by the organization are “legitimate” within the perception of the external parties. Norms and boundaries are considered to be changed over time (Eddleston & Kellermanns, 2007). As a result, they require an organization to be responsive to the current trends in the global business environment and satisfy the expectations of the external stakeholders as well as the context in which they are operating (Eddleston & Kellermanns, 2007; Hoang, 2018).

Another theory that could be used to explain the development of DT in the organization was the stakeholder theory, which claims that changes and transformations inside the organization are rationally planned to respond to the demands of a wide range of stakeholders. Put differently, while legitimacy theory highlights the priority of society’s expectations, stakeholder theory explicitly focuses on the power of a variety of stakeholders (Freeman et al., 2004). The stakeholder theory claims that the reason behind any change in an organization is an effort to maintain the support of its stakeholders (Freeman et al., 2004; Hoang et al., 2020a). Thus, under the stakeholder theoretical perspective, a successful organization is one which is able to manage and satisfy the different and conflicting views of the various powerful stakeholder groups (Nguyen, L.Q.T. et al., 2020; Bui, 2021). The legitimacy and stakeholder theories are constructed from a similar perspective and illustrate an overlapping view as both theories suggest that an organization is a part of a social system in which they are influenced by and can affect the roles of other actors and parties in this system.

Several management scholars indicated that the motivation for undertaking organization changes such as DT might belong to two aspects: it is either “good for the business” (Westerman et al., 2014, p.3), which is consistent with the stakeholder and legitimacy theoretical lenses, or it is “the right thing to do” (Vial, 2019, p.120). While there are many studies which explore the DT of an organization in terms of being “good for the business” (Westerman et al., 2014; Singh & Hess, 2017; Boratyńska, 2019), what is not yet clear is the impact of “the right thing to do” aspect to the DT practice of an organization with respect to the specific circumstances such as in the context of SMEs (Nguyen et al., 2021b). Unlike large companies or multinational corporations, the resources for promoting initiatives such as undertaking DT is limited for SMEs (Poole, 2018). Thus, it is reasonable to explore the fundamental reason for undertaking DT from the perspectives, behaviors and actions of the main practitioners of DT in the organization, i.e., the

business leaders. Stewardship theory offers a collective-serving theoretical perspective of behavior, motivated by “the intrinsic values” and “a desire to do what is best for the organization” besides the stakeholder satisfaction and maintaining legitimacy (Bui, 2021). In other words, under the stewardship theoretical lens, management tends to practice DT with the aim of promoting long-term development rather than having a short-term focus. As a result, the theoretical framework of this research is established on the consideration of the theoretical pluralism of three theoretical perspectives, i.e., legitimacy theory, stakeholder theory and stewardship theory, in order to provide more important insights into the factors that drive or constrain DT than only one theory being considered in isolation (Hoang, 2018).

### 3. Methodology

Authors who adopt the interpretive qualitative research methodology aim to respond to the suggestions for further exploration of DT in the context of domestic and foreign-invested SMEs in developing countries (Hoang et al., 2020b; Hoang et al., 2022). The six participating SMEs were purposely contacted to ask to participate in our research as they are the good examples of DT transfer in domestic and foreign-invested SMEs in Vietnam, and they were either nominated for, or received the Vietnam Digital Awards in 2018, 2019 and 2020, which were held by the Vietnam Digital Communication Association, accessed via (<http://en.vdca.org.vn/>). A common saturation point was that these organizations still stayed at the beginning stage for the introduction of DT initiatives in their organization, hence they can represent the majority of SMEs in Vietnam for DT.

Our study captures the perspectives of managers and executives in both domestic and foreign SMEs and as the leaders of the DT process to provide an understanding of their experiences and perceptions regarding the obstacles and benefits of DT in the context of SMEs in Vietnam. This research format allows researchers to identify and distinguish between the different challenges and benefits of DT in domestic SMEs and foreign SMEs (Nguyen et al., 2021a). Prior to each interview, participating organizations were sent an email indicating the purpose of this study, and the participants in each organization were then invited to contact us to express their interest in this research (Hoang et al., 2021). During each interview, the participant was also invited to suggest further appropriate interviewees in order to increase the number of interlocutors in the interview stage. This approach maximized the number of interviews across different institutions within the research period. The interview questions were semi-structured in nature to enable the participants to express their thoughts, perceptions and experiences regarding the practice of DT

in their own organization (Nguyen et al., 2019; Bui, 2021). This interviewing procedure enabled researchers to explore issues that needed additional clarification and justification as well as allowing participants to mention the aspects of DT that they believed were critical. There was a total of 22 interviews conducted in the period from February 2020 to July 2020. All of the interviewees were business leaders or senior managers in six case organizations. The average interview length was 50 minutes, with a maximum length of 65 minutes.

To maintain the validity of our study, the data triangulation method was applied, and besides the interview data, additional data was collected from archival records, published documents in the websites and informal conversations with business leaders in these organizations. For the research analysis, each researcher separately conducted the detailed manual content analysis of the research data (e.g. interview data, archival records and published documents).

After independent analysis and coding, the research team later met to discuss themes and sub-themes as well as identifying quotes relevant to the theme and decided the final coding data for the research findings. We did not conduct any further reliability checking, as we did not deem it necessary following this discussion. Details of the interviews are provided in Table 1.

## 4. Findings

### 4.1. Awareness of Digital Transformation

A majority of the interviewees indicated that there is little awareness of the concept and the necessities of DT among shareholders, which is perceived as the fundamental constraint for the emergence of DT in Vietnam, especially for foreign SMEs. For example, one interviewee from a foreign SME said:

**Table 1:** Interview Details

Company Code	Interview				
	Interview No	Position of Participants	Education Background	Experiences (Years)	Interview Times (Minutes)
A	1	Senior Specialist, Strategic Planner	MBA	22	45
	2	Assistant Manager	BA	7	65
	3	General Manager	BA	15	50
	4	Director	LLB	20	65
B	5	Head of Business Solutions	MBA	13	50
	6	Deputy General Manager	MBA	17	55
	7	Brand Manager	MSc	16	60
C	8	Head of Business Development	MSc	15	55
	9	Assistant Manager	MA	8	55
	10	General Manager	BA	10	60
	11	Head of Customer Experience	BA	11	65
D	12	Enterprise Solutions Designer	BA	14	65
	13	Head of Business Development	BA	15	45
	14	Assistant Director	MBA	9	40
	15	Deputy Director	MA	10	55
E	16	Managing Director	MBA	12	60
	17	Brand Manager	MA	15	60
	18	Business Solutions Manager	MSc	18	60
F	19	Executive Director	MA	21	60
	20	Chief Digital Officer	MA	19	65
	21	Head of Communications & Service Quality	BA	19	45
	22	Assistant Manager	BA	10	45



“In Vietnam, customers always select products or services with the lowest price; they still do not care about the convenience that digitalized services will bring to them in the long term. What you will hear are the two extremes; one will decide to buy as they used it before and recognized the brand name, while another will buy as it is cheap. These two extremes do not care about the longer benefits of digitalized services and products.” (Assistant Manager, F)

Another interviewee from domestic SMEs drew attention towards the limited awareness and resistance for DT among managers and employees in their organizations. Participants indicated that the resistance for change and the adoption of new digital technologies have resulted from the unfamiliarity with the new processes and requirements during the DT procedure as well as being “afraid of extra tasks and duties” during the transformation process.

“When you talked to most of our employees, you realized that they do not really understand the true benefits of DT. It is not about the difficulties in our agenda for changes related to DT, but they are afraid of the extra tasks and duties that may be put on their shoulders if the managers require it. In addition, due to the busy daily work, most of the employees did not want to learn or receive more tasks such as setting up the chatbot or collecting work and replying to the customer through the chatbot.” (General Manager, A)

Recently, however, there has been an emerging trend towards transforming to digital in a variety of companies, starting from the multinationals and large corporations. This effort delivers fundamental encouragement and motivates the local business community to reconsider their existing business models, as confirmed by an interviewee in a domestic SME.

“When we heard about the DT strategy of big corporations such as [...] and even multinational subsidiary such as [...] (our competitor), we immediately thought about the bad scenario when we are unable to compete with them. Hence, it forces us - the leader of this company - to change our views, and pay attention to the step that we have not had to think about before - the digital movement.” (Head of Business Development, C)

Talking about the DT in Vietnam, most of our participants, especially interviewees from SMEs, agreed that DT is still in its infancy and only a few domestic SMEs are starting to pay attention to this movement. Even those

who have started the digital movement might think about losing competitiveness rather than considering the more extended benefits of DT.

## 4.2. Impacts from External Influences

The engagement and external supports such as advanced technology and knowledge transfer can deliver significant implications for the improvement in the DT process in an organization, which is missing in most of the domestic SMEs.

“We develop our digital transformation agenda from zero, so the initial step only relates to adopting common technologies such as chatbot, internet payment systems and accounting software; these are all very useful. However, we do not think that these efforts are sufficient digital transformation initiatives quite yet.” (General Manager, B)

Nevertheless, the participants still did not perceive that the simple adoption of technologies is precisely the DT process. The different view has been mentioned from the participants of foreign SMEs, which is that it has inherited intellectual capital and technology as well as directing investment from the parent corporation.

“...compared to our local peers, we have received much support from our parent company, and we already have a powerful business information system such as our enterprise resource planning system (ERP), which can be adopted to match the business environment in Vietnam..., other supports including some technical specialists and even investments to facilitate the adaptation of business information of the corporation in Vietnam business context.” (Brand Manager, E)

However, another concern which came from the managers at foreign SMEs were the mismatch between the parent company and their current customers. On one side, they received huge support for advancing digital technologies in their company. On the other side, Vietnamese customers seemed to neglect the benefits of advanced technologies and applications.

“Although many digital transformation attempts have been started by a lot of domestic companies in our industry, customers are, however, still unfamiliar with the use of technologies immediately such as e-pay or internet interaction... our digitalization delivered just a little impact on their purchase behaviors.” (Chief Digital Officer, F)

Unlike the perception of the Chief Digital Officer from F, the Director of company A witnessed another experience regarding the importance of DT due to the expectation from stakeholders, and these pressures are expected to be even more likely to happen in the future when DT becomes a common practice in most enterprises in the world.

“I think that, so far, we do business in a Vietnamese context, but we also have to see the influences in the international context, as when stakeholders experience digitalization from other companies, they may expect to see similar initiatives at our company.” (Director, A)

#### 4.3. Benefits of Digital Transformation

There is a general consensus that DT can deliver proper benefits for the organizations in the beginning at the development stage. The Senior Specialist who is The Strategic Planner from company A, has discussed the enhancement in business, management and operational functions in their company since the DT process.

“Our newly developed technologies and applications enhance our operational capabilities as well as offering us new ways to interact, communicate and do business with our customers as well as other stakeholders.” (Senior Specialist - Strategic Planner, A)

In addition, the Deputy General Manager of B perceived that another benefit came from the ability to free staff members and managers from “repetitive work” and focus more on “dealing with the critical issues.”

“Since we now have new applications such as chatbot, learning hub and e-stores, we do not need to hire more employees than we did, rather, our staff members and managers can spend more time on dealing with the critical issues such as planning, decision making and budgeting...” (Deputy General Manager, B)

Furthermore, the Assistant Manager of F provided evidence from the report of their business partner to show how DT provides them with the ability to increase the value creation or “up-sale.”

“We have started to put most of our products online in a few e-commerce platforms with several additional applications such as chatbot and e-pay; this decision has helped us to up-sale around 15% in the first month, followed by 10% in the next two months.” (Assistant Manager, F)

#### 4.4. Inclusion

Besides the conventional economic benefits of DT, there are particular advantages that digitalization have brought to the enterprises in terms of allowing their alignment with international operation standards as indicated by the Business Solutions Manager from E:

“The digitalization in Vietnam enterprises, and especially domestic enterprises, can be partly understood as the attempts to update their operational standards to the current international standards in the world. Through digital transformation by adapting and updating modern technologies as well as intellectual assets, companies can ensure that their products match the current international standards and are ready for export...” (Business Solutions Manager, E)

Moreover, both participants from domestic SMEs as well as foreign SMEs are helping firms to overcome difficulties from the global COVID-19 pandemic, as confirmed by the Head of Customer Experience from company C:

“... The most worrying point for us was the negative impact of the pandemic, which also directly influenced our sales and operations planning process... To be more specific, we were unable to be physically selling our products. Thus, we put our products on online stores as using e-pay services are the only efficient way to survive during this pandemic period.” (Head of Customer Experience, C)

Also, participants from the foreign SMEs experienced other advantages that DT can contribute to overcoming challenges of the pandemic in the context of foreign SMEs.

“...pandemic and technologies contribute significantly to the way we work in the organization as well communicating with our partners. Everything now goes online, so now we are unable to hear about travelling to work; instead, everything now turns to online mode. In one way, it causes a little bit of confusion and is uncomfortable at the start; however, online and remote working does help us to reduce costs while still maintaining returns.” (Deputy Director, D)

#### 5. Discussion

This section discusses and compares empirical findings highlighted from previous section with existing DT literature. The discussion section is divided into challenges for and benefits from the current DT process in Vietnamese SMEs.

### 5.1. Challenges for Digital Transformation

The establishment and development of DT initiative in our case firms involve engagement of several factors, including resources, commitment from top managers, the supports from relevant stakeholders. The establishment of DT requires not only sufficient resources, engagement and supports from internal but external stakeholders such as tech savvy staff, investors, customers, but also policy-makers and standard setters. However, respondents' experience and perceptions from our case SMEs highlight that challenges for DT process may arise from these features, including (i) the resistance for any change regarding the DT in their organizations from both side of managers and employees, (ii) the desire from external stakeholders, who call for sufficient innovative changes from organization, (iii) a lack of awareness from stakeholder and (iv) neglect from the customers for the potential long-term benefits for organizations from DT process. Results from our research further support findings from several DT and innovation management studies such as Majchrzak et al. (2016) and Nguyen et al. (2021a), who claimed that the external pressures from customers and shareholders are the main barriers for a successful DT process in any enterprise. Our findings also confirmed the concerns from the work of Singh & Hess (2017); Nguyen et al. (2021b) and Frank et al. (2019), which highlighted the resistance from internal organizational actors, such as managers and staff members, as the fundamental obstacle for organizational changes such as the DT process, especially in the context of SMEs.

### 5.2. Benefits from Digital Transformation

Besides the recent challenges for DT, participants also experienced and shared their perspectives regarding the benefits received from the DT journey of their organizations, which varies from (i) improve operational as well as business functions; (ii) liberate staffs and managers from daily work and allows them to focus on decision-making tasks; (iii) enable solutions to deal with consequences from the COVID-19 pandemic; (iv) enhance value creation process; (v) help firms to align with the global business standards.

It is worth noting that there is a common idea from domestic and foreign SMEs that DT offers organizations an appropriate response for the recent global pandemic while contributing to the value creation process inside these organizations. Our findings support several studies by Suseno et al. (2018) and Boratyńska (2019), who claimed that DT had brought huge business values in terms of value creation and productivity enhancement. Our research findings are consistent with those of other studies. They suggest that, through the DT process, organizations can develop efficient operation approaches to overcome the negative influence of

the global pandemic (Iivari et al., 2020). Furthermore, the findings observed in this study mirror those of the previous studies that have examined DT's effect on the organization as DT could free staff and managers from repetitive duties, hence allowing managers to focus on dealing with critical issues, hence improving firm performance. Moreover, our research results agree with the findings of other DT studies in developing countries by highlighting that DT can bring a way for organizations in developing countries to upgrade operational standards for the alignment with international requirements and standards (Gölzer & Fritzsche, 2017; Frank et al., 2019).

## 6. Conclusion and Research Implications

Our research addressed the recent call for in-depth investigation into the status quo, contributes to identify challenges and benefits from DT process and examines the implications of DT to SMEs in the context of Vietnam.

### 6.1. Theoretical Contribution

Most of the existing studies on DT focused on DT in developed countries and examine DT in large companies; for instance, Warner and Wäger (2019) studied the dynamic capabilities of DT in multinational corporations, and Boratyńska (2019) investigated how DT facilitates operational production in large firms in Europe. We thus extend the knowledge of DT in the business context of Vietnam – a developing country – to reflect the current obstacles and benefits of DT in the environment of domestic and foreign-invested SMEs in the developing world. Our research is one of the first researches that has considered the different perspectives of business managers from domestic and foreign-invested SMEs to highlight the related concerns about the benefits of DT.

### 6.2. Practical Implications

By exploring the intricate nature of the issues arising from DT in organizations, findings from this paper can help business leaders and policymakers to decide on the introduction and promotion of DT. Although DT is a current trend for all of the enterprises in the world (Majchrzak et al., 2016; Frank et al., 2019), they should pay additional attention to the disregarded non-technological aspects of DT such as the transformation of management intensity and the engagement and perception of employees, customers, and shareholders, as those factors significantly influence the success of DT in the context of SMEs. Moreover, the authors suggest that business leaders should consider the transformation within appropriate management capability and prepare relevant approaches of coordinating

transformation activities regarding the management of the internal relations of organizational members and actors to eliminate the potential resistance that may arise during the DT process.

### 6.3. Limitations and Future Research Direction

Several significant limitations of our study need to be considered, which can pave the way for future research. First, although our sample companies were leading SMEs in DT in Vietnam, there is also a limitation because our research only focuses on a single country. Besides, future trials should assess the impact of DT on a wider range of stakeholders such as shareholders, the local community, and employees of SMEs and the influence of DT on the economics of Vietnam. Finally, stemming from our research results, future researchers may consider policymakers' perceptions and experiences and precisely how they seek to promote and diffuse DT in both domestic and foreign-invested SMEs.

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