

Digital Transformation Affecting Sustainable Development: A Case of Small and Medium Enterprises during the Covid-19 Pandemic

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Abstract

Vietnam's economy faces many difficulties and complicated developments. To create an environment with favorable conditions for sustainable development, it is necessary to have innovative business solutions that not only bring profits for businesses but also solve environmental and social problems. In addition, small and medium enterprises (SMEs) have made many positive contributions to economic restructuring, creating stable jobs for hundreds of thousands of employees and ensuring social security. Besides, SMEs in Vietnam have faced many difficulties and challenges during the COVID-19 pandemic. Thus, the papers' objectives explored critical factors affecting the sustainable development of SMEs in Vietnam. The authors applied two methods, such as qualitative and quantitative, with data obtained from 400 managers of small and medium enterprises and used structural equation modeling and SPSS 20.0, Amos software. The article's findings have the digital transformation factor's most substantial impact on sustainable development. The article's novelty is determined by five factors: market trends, state support policy, social responsibility, quality of human resources, and digital transformation. Finally, the authors recommended guidelines to help businesses be more cohesive in removing difficulties and solving issues related to credit relations to put capital into modern technology investment to ensure business effectiveness and sustainable development for SMEs.

Keywords:

Sustainable Development;
Digital Transformation;
Small and Medium Enterprises;
Social Responsibility;
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1- Introduction

SMEs continue promoting technological innovation, improving employment, maintaining social stability, and growing the GDP of each country. However, in implementing social distancing to prevent and control the COVID-19 epidemic, Vietnamese small and medium enterprises' production and business activities suffer significant impacts, such as demand reduction, supply chain disruption, export order cancellation, raw material shortage, and transportation disruption. However, the actual operation of small and medium enterprises is still facing difficulties due to the impact of objective and subjective factors affecting the development, limitations on the scale, and extent of their contribution to economic growth.

Determining the critical role of small and medium enterprises (SMEs) in the economy, over the years, Vietnam has had many policies to support its development. Create capital sources, production, and business premises; provide market information and trade promotion; improve corporate governance capacity; provide employee vocational training; and significantly establish the SME support fund [1, 2]. The guidelines promulgated and implemented have basically followed the actual requirements in the short-term and strategic nature. Specifically, to promote and improve the efficiency of SME operations, the government has issued many preferential policies on tax and credit for enterprises in general, especially SMEs. More and more SMEs are participating in digital transformation and achieving remarkable

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achievements. Besides, digital transformation in SMEs is taking place firmly along with the rapid development of technology, which has created significant changes for businesses of all different types and sectors. Therefore, it is necessary to clearly identify the trend and great benefits of digital transformation with the sustainable development of Vietnamese enterprises, from which there are practical solutions to promote the digital transformation process among Vietnamese enterprises today and a new point in this research during the COVID-19 pandemic.

Among the types of production and business in our country, at present, SMEs have pervasive power in all areas of socio-economic life. On that basis, SMEs have developed enormously, accounting for enterprises. Vietnam currently has more than 800,000 enterprises. Currently, SMEs employ about half of the country's non-agricultural production workforce (49%), and some regions employ the vast majority of the non-agricultural production workforce. In addition to labor, SMEs also use the financial resources of local people and raw materials in the region for production and business activities.

Vietnamese small and medium enterprises are essential to the country's economic development. The scale of small and medium-sized enterprises is expanding, and the part of small and medium-sized enterprises is also increasing continuously in the national economy. Small and medium enterprises are specific industries in production, processing, and export, including many fields of activity with the characteristics of the industry, agriculture, commerce, and services structured into a system most closely and organically related to each other [3, 4]. SMEs continue to play an increasingly important role in producing goods to serve the needs of domestic food consumption and exporting to earn foreign currency. Whether traditional business development is stable, long-term, or sustainable and will bring more stability to many localities over time is a controversial debate in developing countries. The study considering the nature and understanding of the factors affecting the sustainable development of enterprises is the research problem of this research paper. Therefore, the article identifies critical factors affecting sustainable development in Vietnam. Based on the research results, the authors had policy recommendations for the sustainable development of small and medium enterprises during the COVID-19 pandemic in Vietnam.

2- Literature Review

2-1- The Concept of Sustainable Development of Small and Medium Enterprises (SD)

Sustainable development issues are a school of thought; interacting with the relationship between people, social and natural institutions can be found in development history [5]. Specialized academia and politics—at the level of international relations and organizations—began tackling this problem in the 20th century, when issues related to growing population growth, economic growth, and increased use of non-renewable resources [6, 7]. On the other hand, corporate sustainability considers that a business is a system around which individual stakeholders are related and operate within a broader socio-ecological system. Individuals, companies, and socio-ecological systems have existence and need purposes [1, 8]. Sustainable companies organize their activities so that both requirements are simultaneously met for their stakeholders, the businesses themselves, and the socio-ecological system.

From the concept of sustainable development at the macro level and the business under the principles of sustainable development, we aim to understand the company [3, 9]. Sustainable development of enterprises is scientific, and sustainable development activities focus on economic efficiency, contribute to environmental protection, and harmoniously deal with the economy and society towards sustainable development [4, 10]. Thus, sustainable development must ensure effective economic development, a just society, and a protected and preserved environment. To achieve this, all socio-economic sectors, authorities, social organizations, and businesses must join hands to implement to harmonize three main areas: economic, social, and environmental [11, 12].

2-2- The Concept of the Market Trends (MT)

The market trend is one of the fundamental concepts of a business. The correct identification of market trends helps business managers have a basis to produce products according to consumers' needs and tastes [4, 11]. Market trends have been given to the business environment, and the private sector has ceased to be viewed as a mixture of businesses classified primarily by size but as an integrated system of the market for products and services governed by a regulatory framework that responds to changes in demand, partly emerging patterns, ultimately related to national competitiveness [2, 13]. Market trend analysis is one of the indispensable activities for any business if it wants to succeed and break through its competitors [7, 14]. Thus, based on the theory cited above, the authors hypothesized that market trends affect the sustainable development of small and medium enterprises:

Hypothesis H1: *Market trends have a positive relationship with the sustainable development of SMEs.*

2-3- The Concept of State Support Policy (SP)

The policy to support the state is to achieve the best possible economic outcomes and related tasks in the context of sustainable development [13, 15]. Sustainable development of enterprises and successfully mastering its challenges

opens up opportunities for business enterprises, which need support from enjoying state policies towards enterprises [12, 16]. The synthesis of the research process in the group of attributes of economic policy factors is very diverse [17, 18]. Because the above studies surveyed multinational companies, financial groups, and large-scale corporations in developed countries. As such, state-supported housing policies can promote competitiveness, sustainable businesses, and job creation through local and regional approaches based on support for specific disadvantaged regions by providing investment incentives in sectors as part of a broader development agenda [19, 20]. These programs will likely be necessary for nurturing the economy and fostering the creation and growth of sustainable businesses. A particular approach to promoting and developing participatory companies from central and local support policies in the regional economic development community [19, 21]. Applying the state support policy element to the study of how this factor affects the sustainable development of enterprises is suitable for the business situation in Vietnam. Specifically, the authors hypothesized:

Hypothesis H2: *State support policy has a positive relationship with the sustainable development of SMEs.*

2-4- The Concept of Social Responsibility (SR)

Society and the environment: The business environment in some developing countries is not conducive to equity, private sector investment, and sustainable growth. A stable and sustainable society cannot be achieved when extreme poverty exists. Sustainable development is about meeting the needs of both present and future generations [22, 23]. While there is a clear business case for addressing poverty alleviation, it does not mean that all businesses will recognize this and act accordingly [2, 24]. A significant impediment to formal private sector participation in addressing poverty challenges, both directly through job and income generation and indirectly through their contribution to social progress. It is also the case that some businesses may behave less cautiously, especially those that wield considerable economic power and can turn this into significant political leverage [17, 25]. As mentioned, the newly discovered social security element can be of substantial benefit, both to the business itself and to poverty alleviation, from an integrated approach whereby companies build action strategies in each area that are more effective and are considered a characteristic of small and medium enterprises in Vietnam, which has led the authors to hypothesize as follows:

Hypothesis H3: *Social responsibility positively relates to the sustainable development of SMEs.*

2-5- The Concept of Quality of Human Resources (HR)

The workforce belongs to the group of factors that drive business sustainability, which is also an important business decision factor for businesses [18]. Firm employees are an influencing factor in the role of firms in corporate social responsibility and may help to elucidate the particularities of small companies relevant to this research agenda [26, 27]. It has helped to re-conceptualize the company's nature, encourage stakeholders to look inside the business, such as employees and suppliers, and legitimize new forms of understanding management and action [28, 29]. Stakeholder relationships are increasingly recognized as essential to small business development [30, 31]. From the above theoretical model, workforce factors (employees) such as improving employee morale, participation, and commitment, attracting and keeping a variety of talented people, and finding solutions to the challenges of an aging workforce [8, 19]. The authors draw out the labor force factor and its impacts on the sustainable development of small and medium enterprises in Vietnam. Specifically, the authors hypothesized:

Hypothesis H4: *The quality of human resources has a positive relationship with the sustainable development of SMEs.*

2-6- The Concept of Digital Transformation (DT)

In recent times, we often hear the concept of "digital transformation" mentioned a lot in the mass media. This is no longer a must-do but a must-do for businesses to flexibly adapt to the modern business environment and help enterprises develop sustainably in today's changing world. Encourage the development and dissemination of environmentally friendly technologies [32, 33]. Today's manufacturing businesses devote much time and resources to environmental performance improvement. This is important because it allows the processing business to contribute to eco-sustainability by applying quality comprehensive environmental management processes or redesigning products and processes, production technology, and a unique digital transformation [19, 30]. Digital transformation for the prevention of environmental pollution. More specifically, including environmental issues in corporate strategy beyond what is required by government regulation can be seen as a means to improve a business' alignment with the growing concerns about the environment and the expectations of the stakeholders. The group of attributes on environmental factors: Prevention of environmental pollution; integrate stakeholders [34, 35]. From there, the authors draw out the elements of environmental pollution prevention that impact the sustainable development of small and medium enterprises in Vietnam. Finally, the authors hypothesized:

Hypothesis H5: *Digital transformation positively relates to the sustainable development of SMEs.*

Based on the above research and theoretical framework, a theoretical framework has been developed, showing that internal and external factors that impact the sustainable development of enterprises and the environment have been identified. Small and medium enterprises (SMEs) are used in research in Vietnam (Figure 1).

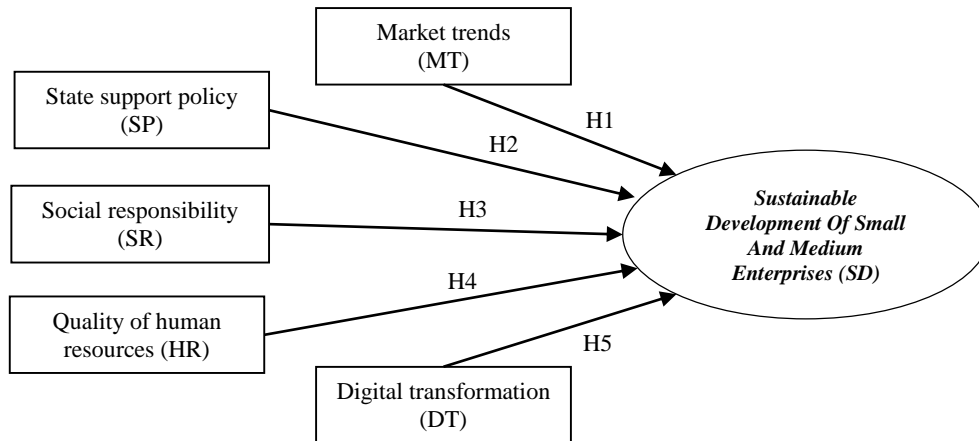


Figure 1. The research model for the factors affecting the sustainable development of small and medium enterprises

3- Methods of Research

The research process consists of a systematic process focusing on research objectives and collecting documents, data, and information related to the research topic to analyze and answer research questions to meet the identified research objectives. The research process is a multi-step process in which these steps relate to each other and other measures. If changes are made during one stage of the process, the researcher must consider all other actions to ensure that the changes are consistently reflected throughout the study.

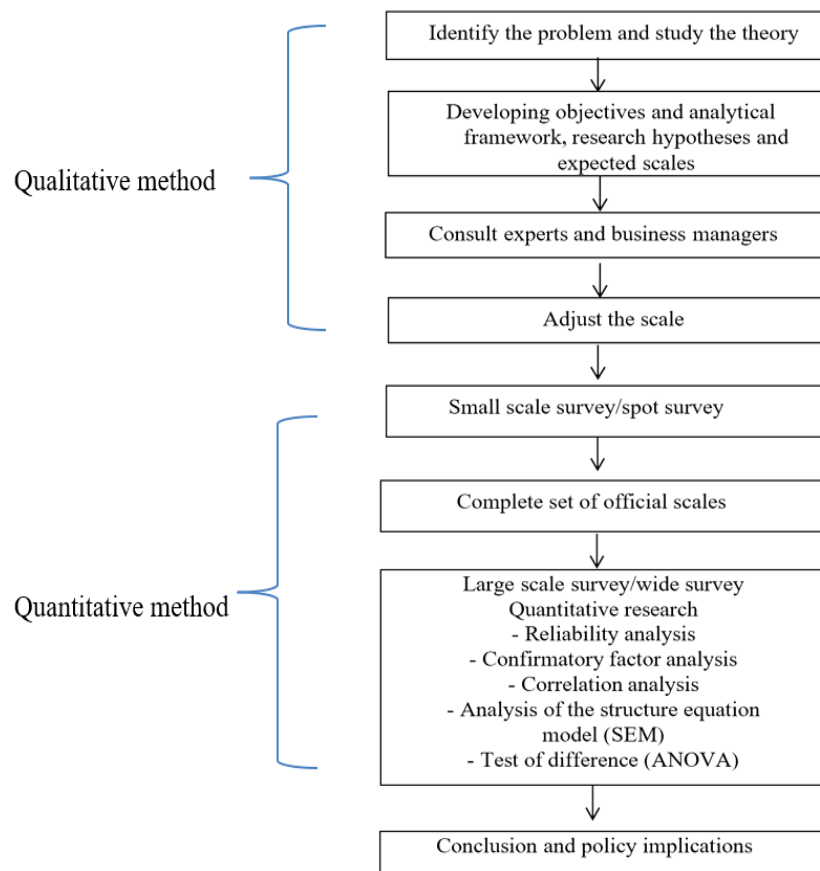


Figure 2. The research process for the factors affecting the sustainable development of small and medium enterprises

Figure 2 shows that the authors used qualitative and quantitative methods. Qualitative and quantitative methods can complement each other effectively and enrich the collected data, especially in new research. The problem here is that the article's new research area is the intersection between development economics and business administration as a case

study of factors affecting the sustainable development of small and medium enterprises in Vietnam [36]. The article used the scale development research process performed through the following steps:

Quantitative research is used to determine the factors affecting sustainable development and the degree of influence of these factors. The quantitative research process begins with a formal survey using the questionnaire agreed upon in step 3. The survey was conducted for two months, from November to December 2022, including Can Tho City, Ho Chi Minh City, Hai Phong, and Da Nang City; each city had 100 managers participating. Besides, the target audience participating in the survey is business managers. The official questionnaire was sent to 400 business managers. The questionnaire was printed out and sent directly to the survey participants. After the screening, the data collected from this survey will be analyzed using the descriptive statistics software SPSS 20.0 using the following methods. The sample size for collecting was $n = 400$ managers participating in discussions, but 375 samples were processed. As the author mentioned above, the official research method used in this study is quantitative. Statistical analysis results will be used to evaluate the scale's reliability, convergent value, discriminant value, and appropriateness of the research model and test the research hypotheses. The data's relevance has the analysis results needed for this study to succeed. Therefore, the design stage of the formal research sample must be done carefully to optimize the research results below:

- Cronbach's Alpha test, Exploratory Factor Analysis (EFA). KMO coefficient is more significant than 0.5, Berlet significance level is less than 0.05, Eigenvalue criterion is greater than 1, total extracted variance is greater than 50%, factor loading is more significant than 0.5, difference Weight difference (if any) is more important than 0.3.
- Confirmatory Factor Analysis (CFA). Chi-square/df < 5.0; GFI > 0.8; TLI > 0.8; CFI > 0.8; RMSEA < 0.08.
- Structural Equation Model (SEM) analysis. The regression coefficients in the model with a significance level of less than 0.05.
- Bootstrap analysis. If this C.R value is > 1.96, then the p-value < 5%, accepting H_a , concludes that the non-zero deviation is statistically significant at the 95% confidence level (Hypothesis H_0 : Bias = 0, H_a : Bias \neq 0).

Presentation of results: This step presents the statistical results obtained from the above methods and analyzes these results following the requirements and aspects of the study. Conclusions and suggestions for management implications: The author draws conclusions and gives managerial implications towards practical application values based on the results of qualitative and quantitative research collected from the above steps to solve the research problem.

4- Results and Discussion

4-1- Current Situation of Small and Medium Enterprises in Vietnam during 2020-2022

In 2020–2022, the outbreak of the COVID-19 pandemic will put Vietnamese enterprises under unprecedented negative impacts on production and business activities that impact the supply chain. It was unintentional when the blockade orders were applied and the rigid use of the three places, one road, two destinations models to ensure the business was effective. Causing significant obstacles for SMEs regarding the costs and risks of controlling diseases, health, and living space for employees. Measures to restrict the movement and circulation of localities have disrupted supply chains, seriously affecting enterprises' production and business activities. On the supply side, SMEs have faced logistical issues due to transportation disruptions and labor shortages. On the demand side, SMEs have seen a significant drop in corporate demand due to lockdown measures, reduced consumer confidence, and the closure of some global value chains in the affected industries.

In particular, enterprises operating in the production, processing, and manufacturing fields, such as textiles, garments, footwear, electricity, electronics, machinery, equipment, etc., suffered severe disruptions from the supply of raw materials, auxiliary materials, and input components. When the supply chain is broken, it is difficult for SMEs to find alternative supply points, causing production and business activities to be stopped due to the inability to reserve raw materials. With the lucky scenario of finding a new source of supply, SMEs will have to compete with competitors on price, causing production costs to increase and affecting the output prices of products. In addition, SMEs also have to face the situation that the output market for goods consumption and export has been sharply reduced, leading to a decline in export value, especially in commodity sectors such as textiles, garments, footwear, leather goods, etc., electronics, telephones, and automobile assembly.

Impact on the size of the business: the decrease in revenue due to the COVID-19 epidemic has forced SMEs to reduce the scale of their business operations. Most SMEs are downsizing their operations by cutting their workforce due to a drop in orders and disruptions in input supply. At the epidemic's peak, 28.2% of SMEs reported a more than 50% reduction in the labor rate in April and May 2022 compared to December 2021. Specifically, in April 2021, the average labor rate of SMEs decreased by 33.8% compared to December 2020. By 2021, the number of SME employees will have decreased by 18.1% compared to 2020. Many businesses have been interrupted, delayed investment progress, had to cancel projects that are or will be implemented due to the epidemic situation, and even faced the risk of bankruptcy due to a sudden drop in demand, leading to a decrease in revenue as well as a risk of debt collection leading to insolvency.

Although the government has taken a series of drastic measures to support production, stimulate consumption demand, expand the market, promote public investment, etc., the resilience and growth of these sectors are still strong. SMEs still take place slowly, and the operational situation of enterprises has not made positive progress.

Competition is an excellent economic mechanism when the economy fully and effectively uses available resources. However, after the COVID-19 pandemic, in the medium term, some SMEs face the risk of economic recession, bankruptcy, and high unemployment. In such a context, it is necessary to have solutions to stimulate economic growth as soon as possible and create a redistributive mechanism to reduce the financial burden and prevent the possibility of bankruptcy for SMEs.

4-2-Analysis of Survey Results of 400 Business Managers of Small and Medium Enterprises

In the research process, demographics play an important role. Understanding the demographics, the researcher will develop effective strategies to reach the survey audience. The authors had statistical results on research sample information for demographics, which is understood as the process of collecting and studying data related to the characteristics of people's age, sex, and race. Demographic analysis based on the above factors can be applied to a specific group of people or the whole society. Demographic data is considered the measuring tool and market definition of most businesses in any industry. Thanks to demographics, you will clearly understand your target audience, how to market your products, and how effective your services are for users. The authors can evaluate their behavior, interact on the business's media platform, predict purchasing trends, and plan their future strategies, according to the survey results in Figure 3.

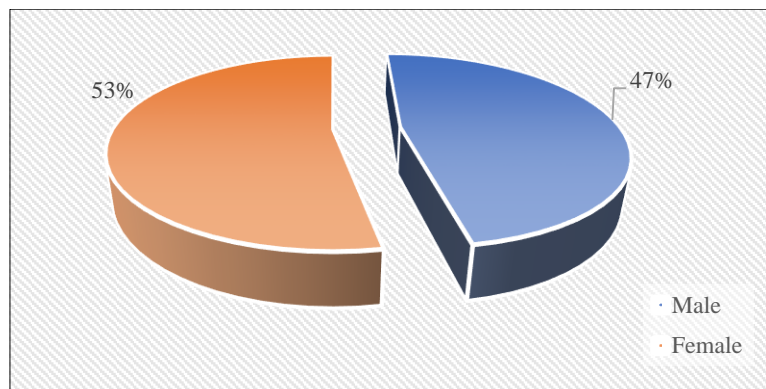


Figure 3. Statistical results for gender

Figure 3 shows that there is not much difference between males and females when answering survey questions. This indicates that the study sample is highly representative of men and women. Figure 4 results provide us with values that generally and accurately describe the characteristics of a sample. From that result, we will have a basis for better research.

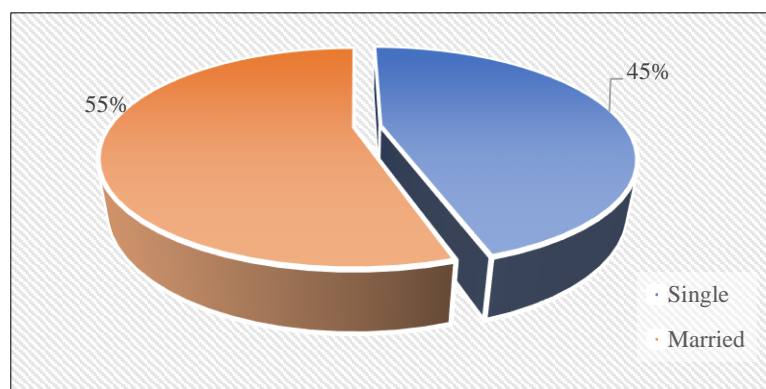


Figure 4. Statistical results for marital status

Table 1 showed that Cronbach's alpha coefficient (Cronbach's alpha, denoted α) is a statistical test coefficient on the level of reliability and correlation between observed variables in the scale. It indicates coherence and consistency in the answers to ensure the respondents understand the same concept. Cronbach's alpha coefficient is used first to eliminate inappropriate variables; item-total correlation coefficients less than 0.30 will be rejected, and the scale standard is set when having a Cronbach's alpha reliability of 0.60 or higher ($\alpha \geq 0.60$). Measurement is acceptable in terms of reliability. A scale is reliable when it varies in the range [0.70–0.80]. In this case, the graduate student researches the main groups of factors; the scale should be selected when Cronbach's alpha reliability is 0.60 or higher, which is suitable for research requirements.

Table 1. Descriptive statistics for the sustainable development

Code	N	Minimum	Maximum	Mean	Std. Deviation
SD1	375	1.00	5.00	3.3840	0.99558
SD2	375	1.00	5.00	3.2800	1.02326
SD3	375	1.00	5.00	3.2880	1.00652
MT1	375	1.00	5.00	3.0293	1.02727
MT2	375	1.00	5.00	3.0187	1.03012
MT3	375	1.00	5.00	3.0853	0.99634
MT4	375	1.00	5.00	3.0373	1.05399
SP1	375	1.00	5.00	3.3440	0.87543
SP2	375	1.00	5.00	3.4773	0.97777
SP3	375	1.00	5.00	3.2293	0.98692
SP4	375	1.00	5.00	3.3067	0.89821
DT1	375	1.00	5.00	3.0373	1.01259
DT2	375	1.00	5.00	3.0320	1.03109
DT3	375	1.00	5.00	3.1093	0.98181
DT4	375	1.00	5.00	3.1067	0.99964
SR1	375	1.00	5.00	2.9547	1.02669
SR2	375	1.00	5.00	2.9520	1.02265
SR3	375	1.00	5.00	3.0293	0.99823
SR4	375	1.00	5.00	2.9573	1.08627
HR1	375	1.00	3.00	2.4000	0.62051
HR2	375	1.00	4.00	2.4107	0.62642
HR3	375	1.00	5.00	2.4240	0.64498
HR4	375	1.00	5.00	2.4213	0.65290

In summarizing the data, factor analysis describes the data in a smaller number of concepts or groups than the variables initially represented, summarizing the characteristics of the variables with a clearer picture of the data. Variables can act together, and how many variables can be expected to impact the analysis. To reduce data, assist factor analysis in calculating scores for each underlying dimension and substituting them for the original variables. It provides an empirical basis for evaluating the structure of variables and the potential to create new composite variables to replace the original ones or select a subset of variables to better represent the analysis. In either case, researchers must know how the variables relate to each other to better interpret the results. Poor management, administration, and business skills in the international market. Compared with large enterprises, small and medium-sized business owners' management and administration capabilities are minimal. Business owners have not been appropriately trained in corporate governance, marketing, business skills, negotiation judgment, etc. Corporate governance is still mainly based on experience, so expanding production and business scale is challenging.

Digital transformation activities in enterprises take place in many aspects with diverse applications. Businesses use various technologies, from expanding markets and getting closer to end consumers to integrating business processes or enhancing IT capabilities. The most common are technologies, such as enterprise resource planning systems, to improve the efficiency and strategic planning of the administrative department. Radiofrequency identification technology increases production and logistics efficiency. Customer relationship and supply chain management software enhance the integration of the business's front-end and supply chain operations. Cloud computing enhances the capacity of IT systems [5, 31].

There is a big difference in access to the digital infrastructure of enterprises between countries. Currently, the difference in digital infrastructure between countries is increasing, directly affecting the digital transformation of businesses. This difference does not only occur between two groups of countries: developed and developing; there is a big difference even in the group of developed countries [21, 27].

Table 2 tests the reliability of the scale for independent factors. (1) Profit and market share increase year by year (SD1); (2) Businesses ensure social justice (SD2); and (3) Businesses always protect the environment (SD3). Besides, the dependent factor shows the sustainable development of small and medium enterprises (SD). Cronbach's alpha for sustainable development is higher than 0.9.

Table 2. Testing of Cronbach's alpha for the sustainable development

Code	Items	Cronbach's alpha
Market trends (MT)		0.954
MT1	Maintaining traditional markets and developing new ones through sustainable development initiatives	0.927
MT2	Enhance existing customer satisfaction and loyalty through sustainability initiatives	0.953
MT3	Encourage suppliers to use management practices to improve sustainability	0.946
MT4	Provide good products and services domestically and for export	0.934
State support policy (SP)		0.835
SP1	Supporting policies and promoting small and medium investment from local and central	0.776
SP2	Support to access the market domestic and foreign from local and central	0.781
SP3	Support tax policy from local and central	0.832
SP4	Support policy of interest-discounted land rental from local and central	0.773
Social responsibility (SR)		0.947
SR1	Participating in awarding scholarships to poor studious students	0.926
SR2	Contribute to building houses of gratitude and love	0.925
SR3	Participate in fundraising programs such as dirty heart surgery to give birth to children	0.942
SR4	Contribute to poverty reduction programs and local social activities	0.930
Quality of human resource (HR)		0.906
HR1	Improve employee morale, participation, and commitment to corporate regulations	0.859
HR2	Finding solutions for a legacy workforce	0.879
HR3	Attract and retain a wide range of talented people	0.904
HR4	Ensure the health and safety of workers	0.870
Digital transformation (DT)		0.952
DT1	Using new technology reduces environmental pollution from production activities	0.944
DT2	Waste, wastewater, and waste treatment technology according to state regulations on the environment	0.950
DT3	Encourage the development and dissemination of environmentally friendly technologies	0.931
DT4	Building a digital transformation strategy	0.920
Sustainable development of small and medium enterprises (SD)		0.946
SD1	Profit and Market share increase year by year	0.928
SD2	Businesses ensure social justice	0.911
SD3	Businesses always protect the environment	0.922

Digital transformation helps businesses access strategic resources, creating a premise for immediate and long-term development. In particular, the most obvious is the digital transformation that makes many financial services available that allow businesses to easily access and fill the capital shortage. Digital financial services such as electronic money, mobile financial services, online financial services, i-teller, and digital banking are carried out through banking and non-banking institutions. SMEs can easily access, compare, and determine the best offers best suited to their needs. In addition, digital transformation helps businesses recruit workers, attract qualified human resources, or connect with domestic and foreign partners.

Participating in the digital transformation process, the operator can actively and easily retrieve reports on business activities, such as revenue recognition, personnel changes, and customer files, to learn about products, which helps business management be more efficient and transparent. In addition, digital transformation also creates favorable conditions for SMEs to quickly and effectively integrate into the global market, reduce transportation and cross-border operations costs, and increase their ability to trade many services. These are essential factors for SMEs to stand firm and constantly develop in the context of fierce competition in domestic and foreign markets.

Table 3 showed that the assessment of the critical factors affecting the sustainable development of small and medium enterprises (SD): CMIN/DF = 2.442 (<5.0), GFI = 0.903 (>0.800), TLI = 0.956 (>0.900), CFI = 0.965 (> 0.900), and RMSEA = 0.062 (<0.08). The article aims to determine the five factors affecting the sustainable development of small and medium enterprises (SD) in Vietnam, especially digital transformation (DT), which is the most important. The process of globalization is taking place very strongly, especially under the condition that Vietnam participates in bilateral and multilateral trade agreements, so the competition between businesses is becoming more and more intense. To be able to integrate successfully, companies need to improve their competitiveness.

Table 3. Testing coefficients for the sustainable development

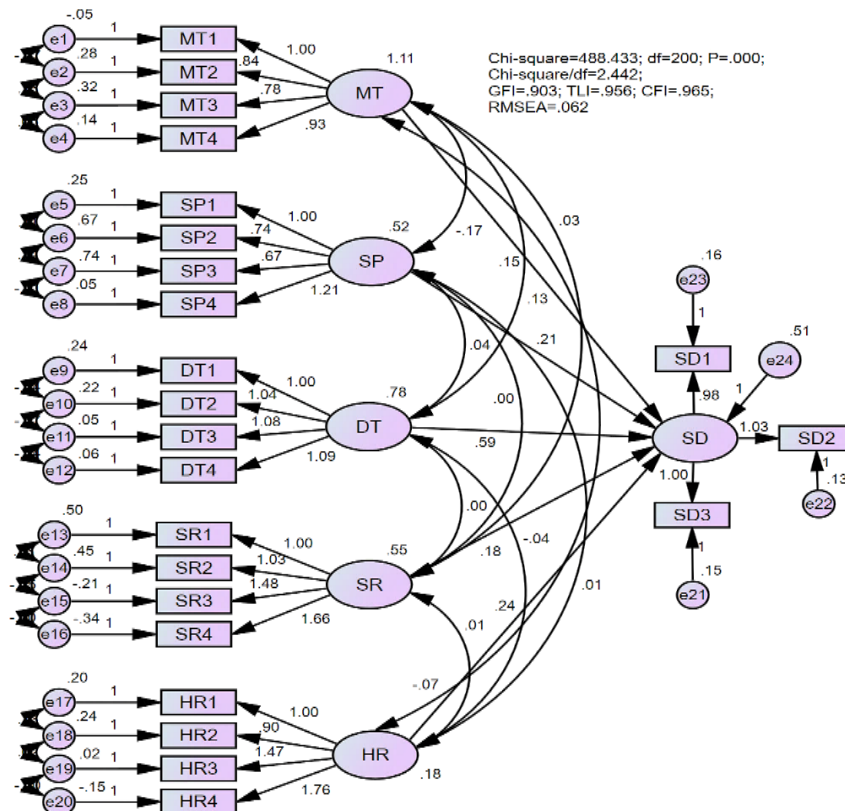
Relationships	Unstandardized Estimate	Standardized Estimate	S.E	C.R	P	Hypothesis
SD ← MT	0.126	0.143	0.038	3.331	***	Accepted
SD ← SP	0.214	0.166	0.057	3.763	***	Accepted
SD ← DT	0.587	0.561	0.048	12.096	***	Accepted
SD ← SR	0.176	0.141	0.044	4.009	***	Accepted
SD ← HR	0.241	0.112	0.071	3.376	***	Accepted

Table 4 shows that the bootstrap test results are very good with 40.000 samples. These results indicated that five factors affect the sustainable development of small and medium enterprises with 1% significance. Then compare this CR value with 1.96 (since 1.96 is the value of the normal distribution at 0.9750, which means 2.5% one-sided, two sides would be 5%). Column $P < 5\%$ concludes that the non-zero bias hypothesis is statistically significant. Due to the hypothesis H_0 : Bias = 0, H_a : Bias $\neq 0$. If this CR value is > 1.96 , the p -value $< 5\%$, accepted H_a , concludes that the non-zero deviation is statistically significant at a 95% confidence level. The estimation model before checking the bootstrap option can be trusted. And if $CR < 1.96$, infer a p -value $> 5\%$, reject H_a , accept H_0 , and conclude that non-zero deviation is not statistically significant at a 95% confidence level, and thus we can complete the model. Usually, this is the expected result in SEM analysis.

Table 4. Testing bootstrap with 30.000 samples the sustainable development

Parameter	SE	SE-SE	Mean	Bias	SE-Bias	CR
SD ← MT	0.035	0.001	0.125	-0.001	0.001	-1.00
SD ← SP	0.067	0.001	0.208	-0.006	0.004	-1.50
SD ← DT	0.057	0.001	0.585	-0.002	0.002	-1.00
SD ← SR	0.058	0.001	0.173	-0.003	0.002	-1.50
SD ← HR	0.068	0.002	0.240	-0.001	0.002	-0.50

Figure 5 shows that the SEM model had all five factors affecting the sustainable development of small and medium enterprises at 1% significance. Five factors included (1) market trends (MT), (2) state support policy (SP), (3) social responsibility (SR), (4) quality of human resources (HR), and (5) digital transformation (DT).

**Figure 5. Testing factors affecting the sustainable development**

Digital transformation is an inevitable trend and a necessary solution to help Vietnamese enterprises develop quickly and sustainably in the current situation. Based on being well aware of the great benefits and challenges in the digital transformation process, the government, ministries, branches, localities, and business community need to join hands to deploy solutions synchronously to accelerate the digital process transformation in businesses. It is necessary to focus on fundamentally changing the perception of companies about digital transformation and having timely and effective support policies for SMEs to quickly and successfully transform digitally.

4-3- Discussions

The COVID-19 pandemic is a crisis for public health and a wake-up call about unsustainability and environmental degradation in global economic and social development. SMEs tend to be the most vulnerable to this severe economic shock. Although the government has taken specific support measures in Vietnam, SMEs are still negatively affected. Therefore, it is indispensable to study solutions to minimize the risky impacts caused by the COVID-19 pandemic on SMEs. SMEs continue to focus on effectively handling the following essential recommendations:

Based on the above result, digital transformation affects the sustainable development of small and medium enterprises (SD), with a significance level of 0.01 and a standardized estimate of 0.561. This result is also wholly consistent with the study results [24, 33]. Besides, the COVID-19 pandemic has changed the patterns and behaviors of people in shopping and payment. The digital economy is expected to be able to revive operations and spur the growth of SMEs in the new normal. SMEs must promote the application and dissemination of technology and digital solutions to support production and business. SMEs need to identify different customer segments to develop a business plan and select appropriate e-commerce channels to quickly reach potential customers and increase sales efficiency. In addition, business managers should increase the dissemination of technology applications to suppliers, retailers, and legal organizations to build safe and appropriate platforms to provide products and online services. Digital transformation is an inevitable trend and an essential solution to help SMEs develop quickly and sustainably in the current situation. Based on being well aware of the great benefits and challenges in the digital transformation process, the government, ministries, branches, localities, and business community need to join hands to deploy solutions synchronously, accelerating the digital process transformation in businesses. It is necessary to focus on fundamentally changing the perception of companies about digital transformation and having timely and effective support policies for SMEs to quickly and successfully transform digitally.

Based on the above result, state support policy affects the sustainable development of small and medium enterprises (SD), with a significance level of 0.01 and a standardized estimate of 0.166. This result is also wholly consistent with the study results [25, 31]. The continued COVID-19 pandemic could severely devastate the global supply chain. Therefore, in the short term, the urgent task for Vietnam's SMEs should be to consolidate, build, and strengthen the domestic supply chain. Supply chain localization through industrial symbiosis and the exchange and use of local by-products supports supply chain resilience, which can help limit the impact of disruptions on the international supply chain and help SMEs reduce dependence on imported raw materials and accessories and recover faster. Thus, as a long-term goal, the government should have policies to support and encourage SMEs to participate in leading foreign enterprises' ecosystems and value chains. In the coming time, the authorities will continue to accompany the business community to promote the program to improve the business environment and enhance national competitiveness, focusing on administrative procedure reform, regulatory business conditions, and cutting costs. Along with that, it helps businesses increase their access to support packages from the state, such as reducing value-added tax and special consumption tax on gasoline and oil, reducing electricity bills (necessary input costs for many production and business industries), and creating favorable conditions for enterprises to recover and develop.

Based on the above result, market trends affect the sustainable development of small and medium enterprises (SD), with a significance level of 0.01 and a standardized estimate of 0.143. This result is also wholly consistent with the study results [29, 35]. Thus, strengthen support for SMEs, help businesses stabilize, develop production and trade, and create a favorable and equal business investment environment for SMEs to contribute highly to economic development and society, improving competitiveness and international economic integration. Enterprises need to focus on restructuring strategies, including the financial plan, human resources, management systems, etc., to reduce economic burdens and proactively respond to fluctuations in the business environment. Accordingly, SMEs must re-budget by classifying which budget items are prioritized and adjusting the budget to suit current conditions. Business owners can conduct analysis of income and expense reports to easily control and make decisions on high-cost items, build a lean production organization structure, restructure production lines, implement technological innovation, and improve production processes towards increasing labor productivity.

Based on the above result, social responsibility affects the sustainable development of small and medium enterprises (SD), with a significance level of 0.01 and a standardized estimate of 0.141. This result is also wholly consistent with the study results [9, 23]. Thus, the institution of a modern market economy should be built and perfected based on improving the effectiveness, efficiency, discipline, publicity, and transparency in economic management, state management, and corporate governance capacity, while at the same time ensuring the interests of the majority of employees and the people in general. Policies to create jobs, increase incomes, and develop practical vocational training

programs suitable to society's needs should soon be perfected to ensure social security, eradicate hunger, and reduce poverty. At the same time, policies to support people's access to minimal public services such as health care, education, and training must also be revised. The government needs to direct ministries, branches, and localities to quickly amend business conditions causing difficulties for enterprises and seriously and fully implement resolutions on improving the investment and business environment approved and promulgated to create breakthroughs for the business environment in the coming period. To provide appropriate strategic directions, businesses must identify environmental and ecosystem trends, including common global issues, related challenges, and opportunities. Since then, in the operation process, enterprises have taken practical actions such as paying attention to the landscape and green space, ensuring the working environment is green, clean, and safe for employees and the surrounding community.

Based on the above result, the quality of human resources affects the sustainable development of small and medium enterprises (SD), with a significance level of 0.01 and a standardized estimate of 0.112. This result is also wholly consistent with the study results [8, 32]. Thus, SMEs need to help employees see career opportunities clearly and encourage them to see themselves in planning their career development. Enterprises need to make a plan to appoint staff and have the goal of supporting them in implementing their career plans. On the other hand, businesses must encourage individuals to be responsible in their professional development. SMEs should recruit human resources from training universities to draft high-quality human resources and excellent employee salaries, remuneration, and insurance policies. This is a decisive factor in ensuring employees' current and future lives.

5- Conclusions

Small and medium enterprises are important in promoting technological innovation, improving employment, maintaining social stability, and growing each country's GDP. However, in implementing social distancing to prevent and control the COVID-19 epidemic, Vietnamese small and medium enterprises' production and business activities suffer significant impacts, such as demand reduction, supply chain disruption, export order cancellation, raw material shortage, and transportation disruption. The article's findings are that digital transformation substantially impacts sustainable development, with a standardized estimate of 0.561. Based on the analysis, the report focuses on quantitative research results found on the theoretical basis of qualitative research results, and five hypotheses have been proposed that impact the sustainable development of small and medium-sized enterprises, including internal and external factors. Analyzing the quantitative results shows that there are still 5 factors affecting the sustainable development of small and medium enterprises in Vietnam, ranked in order of priority of the level of impact from high to low. External factors, measured through five factors affecting the sustainable development of small and medium enterprises. Finally, the author recommended sustainable development for small and medium enterprises.

Implications of the study: This result will help several researchers interested in the business sector and its application for the sustainable development of Vietnamese enterprises in the coming time. Significantly, the governments of provinces and cities in Vietnam can refer to the results of this study to develop support policies for businesses and strategies for the sustainable development of small and medium-sized enterprises in the province. The article contributes to new knowledge in the scale system for the sustainable development of small and medium-sized enterprises. It can serve as the basis for forming a unified scale system in Vietnam on corporate sustainability, which is essential in helping management agencies and state management with the proper orientation for the sustainable development of small and medium enterprises. Since then, the sustainable development of small and medium enterprises has been a new issue that needs to be applied within the business fields of different businesses. Besides, the results of a compact on the government actively supporting small and medium enterprises to carry out digital transformation to optimize their production and business activities, improve their ability to approach customers, have competitive advantages, and create new products and services. The enterprise digital transformation ecosystem and incentives accompany small and medium enterprises, providing a wide range of digital transformation products and solutions for businesses according to four main pillars. Connecting customers, managing employees, optimizing operations, and managing specialized products. From there, help businesses shape areas, goals of interest, and procedures that need to be done for digital transformation clearly with specific priorities. This conclusion could be worded to motivate the academic community emphatically to get down to actionable, practical, engaged, and proposed policies for enterprise development.

Limitations and further research: Research results only consider internal and external factors affecting sustainable development; possibly, many other factors contribute to the impact. In addition, the survey data is still tiny compared to many enterprises, so further investigation with big data and many other factors needs to be included in the research model. Limited ability to grasp market opportunities. Most SMEs find it difficult to take advantage of opportunities and overcome challenges. The reason is due to capital, technology, and management level limitations.

6- Declarations

6-1- Author Contributions

Conceptualization, N.P.T.H., M.L.N., and T.T.H.L.; methodology, N.P.T.H., and T.T.H.L.; data curation, N.P.T.H., and M.L.N.; writing—original draft preparation, N.P.T.H., M.L.N., and T.T.H.L.; writing—review and editing, N.P.T.H., M.L.N., and T.T.H.L. All authors have read and agreed to the published version of the manuscript.

6-2-Data Availability Statement

The data presented in this study are available in the article.

6-3-Funding

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6-5-Institutional Review Board Statement

Not applicable.

6-6-Informed Consent Statement

Not applicable.

6-7-Conflicts of Interest

The authors declare that there is no conflict of interests regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

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