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Determinants of Sustainable Development: A Case Study in Vietnam

PHAM TIEN DAT¹ (*Corresponding author*) and HOANG THAI HUNG²

¹ Rector of University of Finance - Marketing (UFM), Vietnam, e-mail: phamtiendat@ufm.edu.vn

² Dean of Financial Planning Department, University of Finance - Marketing (UFM), Vietnam, e-mail: hoangthaihung@ufm.edu.vn

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ABSTRACT

Climate change is one of humanity's most significant challenges in the 21st century, directly affecting ecosystems, environmental resources, and human life. Besides, the evolution of the Covid-19 pandemic and various crises have significantly impacted Vietnam's sustainable development goals. Vietnam is a country that is firmly committed to the implementation of sustainable development goals through the issuance of the Vietnam sustainable development strategy in 2030. Vietnam is one of the five countries most severely affected by global climate change, affecting directly sustainable development in Vietnam for the following years. Thus, the article aims to determine the key factors influencing sustainable development and propose policy applications for meeting sustainable development goals. In addition, the article over-viewed the situation of sustainable development in Vietnam from 2011 to 2020 based on qualitative and quantitative methods to process data through SPSS 20.0 software. The authors surveyed 400 leaders and other people working for 40 provinces in Vietnam. This study used descriptive statistical tools, measuring scales with Cronbach's Alpha, exploratory factor analysis, confirmatory factor analysis, and regression analysis. Finally, the article's novelty identifies three key factors affecting sustainable development with a significance of 1.0 percent. The original study recommends policymakers and managers of provinces in sustainable economic development, socially sustainable development, and environmentally sustainable development. Three factors are critical and indispensable for sustainable development in Vietnam. And this is also a significant scientific research result in a period when the world has many complicated changes.

INTRODUCTION

Vietnam is gradually achieving many achievements in the country's sustainable development. However, the evolution of the Covid-19 pandemic and various crises have significantly impacted Vietnam's

sustainable development goals. It can be clearly seen that, over the years, we have successfully implemented several tasks toward sustainable development. However, the achievements and progress are not commensurate with the country's potential. The level of economic development is still low compared to other countries and even some countries in the region. Looking at three aspects of sustainable growth: economic, social, and environmental, it is clear that there are still many issues that need to be resolved.

The macro-economy is not very stable. There are unstable factors, economic sectors have not fully developed their capacity, have not really been equal, and have peace of mind in business investment. The management mechanism and distribution policy are unreasonable, do not promote saving, increase productivity, and stimulate investment and development (Chami, 2021). The financial and banking system is slow to innovate, with limited operational quality. Despite many efforts, there is currently no significant change in the innovation and development of state-owned enterprises.

The quality of education and training has not yet met the development needs, especially the training of highly qualified human resources is still limited. The curriculum, content, and teaching and learning methods are outdated and slow to innovate; The training structure is not reasonable between fields and professions. Cultural development has not been commensurate with economic growth. Cultural management is still inadequate; the cultural environment is infringed and unhealthy; social evils and the penetration of harmful products and services degrade morality, especially among youth and adolescents, at a worrying rate (Nogueira et al., 2022; Younis & Chaudhary, 2017).

The formulation of laws and policies on environmental protection is still lacking and slow, the implementation is not strict, and the effectiveness and efficiency are still low. The environment in many places continues to degrade. Some areas have reached an alarming level (United Nations, 2021; Limskul & Hoa, 2013; Goosen, 2012). There are no practical solutions to climate change; the consequences of natural disasters are still heavy; deforestation and forest fires continue to occur. Water, soil, and air pollution are still severe in some places. Many resources have not been mobilized to protect the ecological environment and people's living environment.

1. LITERATURE EMPIRICAL REVIEW

1.1 Sustainable development (SD)

Sustainable development is an integrated, multi-sectoral, and interdisciplinary development method into an action program with more specific and transparent criteria. Sustainable development is inevitable and a noble goal of the development process (Parkin et al., 2003; Atisa & Zemrani, 2021). It is a process of operating at the same time three development aspects: sustainable economic growth, prosperous, equitable, and stable society, diverse culture and healthy environment, and sustainably maintained natural resources (Adejumo, 2020; Allen et al., 2020). Therefore, the complete system of ethical principles for sustainable development includes principles of sustainable development in all "three legs" of economy, society, and environment (Chai et al., 2021; Disano, 2001; Hjorth & Bagheri, 2006). Sustainable development is defined as development that meets the needs of the present generation without compromising the ability of future generations to meet those needs on a coherent and harmonious balance between economic growth, solving social problems, and environmental protection (Moran et al., 2008; Sneddon et al., 2006; Babanyara et al., 2010). Sustainable development is a development process with a close, a good, and pleasant combination of three aspects: economy, society, and environment, with specific contents as follows:

1.2 Sustainable economic development (SED)

Sustainable economic development is the process of achieving stable and regular economic growth, ensuring macroeconomic stability such as inflation, interest rates, and government debt, and ensuring the balance of trade, quality investment, and high productivity through improving the content of science and

technology in production, without harming society and the environment (Phimphanthavong, 2014; Parris & Kates, 2003). Thus, the authors proposed the hypothesis below.

H1: Sustainable economic development (SED) affects sustainable development (SD).

1.3 Socially sustainable development (SSD)

Social development is crucial to progress and social justice; it eliminates hunger, reduces poverty, and solves employment problems (Pearce & Atkinson, 1998; Nourry, 2008; Kates et al., 2005). Socially sustainable development is developed to ensure social justice, eliminate the need and reduce poverty, create jobs, increase incomes for workers, and ensure that people can access essential services such as health care and education without harming the economy and the environment (Wilson et al., 2007; Greiner, 2010). Thus, the authors proposed the hypothesis below.

H2: Socially sustainable development (SD) affects sustainable development (SD).

1.4 Environmentally sustainable development (ESD)

Environmentally sustainable development is the rational use of natural resources, maintaining a stable resource base, and avoiding over-exploitation of renewable resource systems (Herman, 1992; Gao, 2001; Davis, 2016). Ecologically sustainable development needs to preserve biodiversity, atmospheric stability, and other ecological activities, limit environmental pollution, including urban and industrial pollution, manage and treat solid and hazardous waste well, and prevent and minimize the impacts of climate change and natural disasters (Goklany, 2007; Islam & Jolley, 1996; Jabareen, 2008; Auriacombe & Van, 2021). Thus, the authors proposed the hypothesis below.

H3: Environmentally sustainable development (ESD) affects sustainable development (SD).

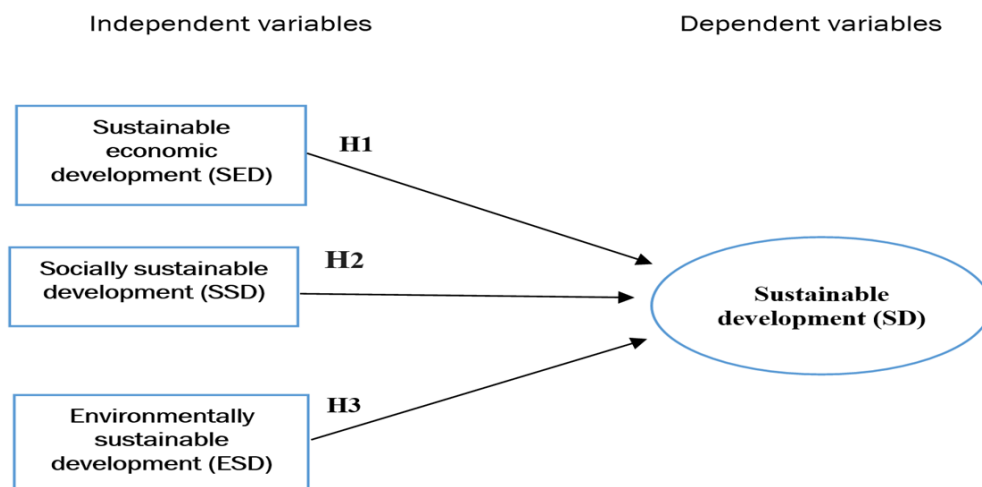


Figure 1. A research model for critical factors affecting the sustainable development

Source: Authors' proposed

Figure 1 shows factors affecting the development of digital banking and the business efficiency of commercial banks in Vietnam. Three factors include Sustainable economic development (SED), Socially sustainable development (SSD), and environmentally sustainable development (ESD). The authors had proposed the hypothesis mentioned above three.

2. METHODOLOGY AND DATA

Based on dialectical materialism and historical materialism, the study uses many different methods and steps precisely:

Step 1: Systematic approach and analysis: mainly used in studying constitutive factors, characteristics, factors affecting sustainable development, indicators, constituent criteria, and factors that influence sustainable development (Hair et al., 2021).

Step 2: Methods of statistical synthesis, comparison, and induction: These methods are mainly used in studying lessons learned, analyzing the current situation of sustainable development, and proposing a system of solutions and recommendations related to sustainable development regarding the completion of the elements of sustainable development (Hair et al., 2021).

Step 3: Expert method: in-depth interviews with scientists and provincial leaders on sustainable development issues.

Step 4: Method of sociological investigation: To clarify the factors derived from sustainable development considered from the perspective of economic management, in the study, two groups of subjects were surveyed: leaders and leaders belonging to all economic sectors in 40 provinces and cities. The second group is experts in the field of management and lecturers in the field of sustainable development at Vietnamese universities (Hair et al., 2021).

Each method has different advantages and disadvantages, so when using the above research methods, they will support each other in clarifying theoretical and practical issues related to sustainable development (Hair et al., 2021).

Step 5: Secondary data: Data are mainly from documents and documents of the Party, Government, ministries related to national sustainable development, reports on national sustainable development of organizations such as WB, reports of Vietnam, Central Institute for economic management, General Statistics Office and specialized agencies under Provincial People's Committee, other documents related to the topic, relevant websites other.

Step 6: Primary data: Information and data obtained through the survey by questionnaire for two groups: (1) Leaders of all economy sectors and economic sectors in 40 provinces and cities; (2) The second group is experts in the field of management and lecturers teaching in the field of sustainable development at Vietnamese universities. Specifically: the author's team distributed 400 questionnaires, and the results collected 355 valid votes (Hair et al., 2021).

Although the more significant the sample size, the better, the sample size used for the study depends on many factors. The research team determined the survey sample size for the groups was 400 because based on the factor analysis model that will be used for calculation, the exploratory factor analysis (EFA) model. Accordingly, the survey sample size is based on the minimum level (50) and the number of variables included in the analysis of the model, with the ratio of the number of samples to an analyte variable of 10/1, 5 scales, 15 observed variables, while taking into account the expected response rate. Therefore, according to the analytical selection model, the sample size is guaranteed to be representative enough (Hair et al., 2021).

Step 7: Regression Analysis: Regression analysis is a statistical analysis to determine the cause-and-effect relationship between dependent and independent variables. The regression analysis model will describe the form of the relationship and thereby help predict the value of the dependent variable when the value of the independent variable is known. Therefore, to identify and measure and evaluate the influence of sustainable development factors from the Cronbach's Alpha test and EFA factor analysis above.

3. EMPIRICAL RESULTS

3.1 Analysis situation of sustainable development in Vietnam

Vietnam has issued a Strategy for Sustainable Development for 2011 - 2020 with the aim of sustainable and effective growth, progress, social justice, protection of natural resources and the environment, and stability. Socio-political stability protects national independence, sovereignty, unity, and territorial integrity.

Vietnam is one of the countries that has made great efforts and has achieved many achievements on the journey of sustainable development. In 2018, Vietnam ranked 69/190 in terms of business environment rated by the World Bank; ranked 77/140 in terms of competitiveness (assessment of the World Economic Forum WEF), and ranked 54/162 countries in the Top 30% of leading countries in sustainable development (only behind Thailand in ASEAN). Vietnam has promulgated a national program on sustainable development, established the National Council on Sustainable Development, and enhanced competitiveness.

The monitoring and evaluation indicators of sustainable development in Vietnam for the period 2011-2020 include general indicators (green GDP, human development index, environmental sustainability index); Economic indicators (effective use of investment capital, social labor productivity, reduction of energy consumption to produce a unit of GDP, consumer price index, current account...); Social indicators (poverty rate, unemployment rate, percentage of trained laborers working in the economy, the sex ratio at birth, inequality coefficient in income distribution, etc.); Indicators on natural resources and environment (the rate of forest cover, the percentage of protected land, the area of degraded land...

Vietnam has promulgated a sustainable development strategy aiming at sustainable and effective growth, progress, social justice, protection of natural resources and the environment, and maintaining socio-political stability. Association firmly protects national independence, sovereignty, unity, and territorial integrity.

Economically, it is necessary to maintain sustainable economic growth, implement green change, develop clean energy and renewable energy, perform sustainable production and consumption, ensure food security, develop agriculture and rural areas sustainably, and develop regions and localities. Economic growth in the 2016-2020 period will average 7%/year, bringing the annual per capita income as a percentage of GDP to \$3,200-3,500 (compared to \$2,100 in 2015). Inflation kept below 5%.

Society focuses on promoting poverty reduction sustainably; create decent jobs; The rate of poor households decreased by 2%/year on average, especially in poor districts, it fell by over 4%/year. Making progress and social justice; well implement social security policies; In 2014, 1.4 million people were participating in social insurance, over 8.5 million people in unemployment insurance, and over 72% of the population participating in health insurance. People's lives are improved. Per capita income reached 2,052 USD/person (2014). The average life expectancy reached 73.5 years (2015). Accomplish multiple Millennium Goals. Stabilize the population size, improve and raise the population's quality; develop a culture in harmony with economic development, building and developing Vietnamese families; sustainable development of urban areas, construction of new rural areas, reasonable distribution of population and labor by regions.

Environment combating degradation, effectively and sustainably using land resources; water environment protection and sustainable use of water resources; rational exploitation. Besides, economic and sustainable use of mineral resources; protect the marine, coastal, and island environment and develop marine resources; forest protection and development; reduce air and noise pollution in big cities and industrial zones.

In conclusion, sustainable development is the development that meets the needs of the present generation without compromising the ability to meet the needs of the current generation, and the requirements of future generations based on a close and harmonious combination of economic growth and assurance of social progress, and environmental protection. This is a general definition, highlighting

the most critical requirements and goals of sustainable development, suitable to the conditions and situation in Vietnam.

3.2 Analysis of descriptive statistics and Cronbach’s Alpha

Table 1. Descriptive statistics and Cronbach’s Alpha for factors affecting the sustainable development in Vietnam

Code	Contents	Mean	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
SD1	Sustainable economic development	3.1099	0.893	0.938
SD2	Socially sustainable development	3.1042	0.927	
SD3	Environmentally sustainable development	3.1099	0.907	
SED1	Gradually reduce the consumption of energy and other resources through saving technology and changing life-styles	3.2423	0.955	0.956
SED2	Changes in consumption demand do not harm biodiversity and the environment	3.1577	0.943	
SED3	Equality in access to resources, living standards, health services, and education	3.0930	0.943	
SED4	Hunger eradication and absolute poverty reduction; clean technology and industrial ecology (recycle, reuse, reduce waste, regenerate used energy)	3.1408	0.928	
SSD1	To stabilize the population and develop rural areas to reduce the pressure of migration to urban areas	3.4648	0.861	0.901
SSD2	To reduce the negative impact of the environment on urbanization	3.5352	0.864	
SSD3	Improve education, eliminate illiteracy; protect cultural diversity	3.4479	0.884	
SSD4	Gender equality, paying attention to gender needs and interests; increasing public participation in decision-making processes	3.4085	0.882	
ESD1	Efficient use of resources, especially non-renewable resources	2.4028	0.759	0.832
ESD2	Development does not exceed the load-bearing threshold of the ecosystem	3.2845	0.770	
ESD3	Protect biodiversity, protect the ozone layer; control and reduce greenhouse gas emissions	2.5775	0.816	
ESD4	Closely protect sensitive ecosystems; reduce waste discharge, overcome pollution (water, gas, soil, food, and drink), improve and restore the environment of polluted areas	3.2197	0.810	

Source: Authors collected and processed from SPSS 20.0

Table 1 shows that factors affecting the sustainable development in Vietnam and all items have a mean value of around 3.0. Besides, the standard deviation has a value of approximately 1.0.

3.3 Testing factors affecting the development of digital banking and the business efficiency

Table 2. Testing exploratory factor analysis for factors affecting sustainable development in Vietnam

Code	Component			
	Sustainable economic development (SED)	Socially sustainable development (SSD)	Environmentally sustainable development (ESD)	Sustainable development (SD)
SED4	0.976			
SED3	0.956			
SED2	0.946			
SED1	0.875			
SSD3		0.972		
SSD2		0.925		
SSD1		0.800		
SSD4		0.767		
ESD4			0.839	
ESD2			0.837	
ESD1			0.824	
ESD3			0.785	
SD2				0.954
SD3				0.946
SD1				0.939

Source: Authors collected and processed from SPSS 20.0

Table 2 shows that testing exploratory factor analysis for factors affecting sustainable development in Vietnam makes four components. Component 1 is sustainable economic development (SED); Component 2 is socially sustainable development (SSD); Component 3 is Environmentally sustainable development (ESD). Component 4 - One independent variable is sustainable development (SD).

Table 3. Testing factors affecting the sustainable development in Vietnam

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	0.235	0.217		1.082	0.280		
SED	0.255	0.045	0.261	5.695	0.000	0.873	1.146
SSD	0.404	0.058	0.354	6.919	0.000	0.701	1.427
ESD	0.233	0.077	0.155	3.044	0.003	0.709	1.410

a. Dependent Variable: SD

Source: Authors collected and processed from SPSS 20.0

Table 3 shows three factors affecting sustainable development in Vietnam with a significance of 1.0 percent. Besides, component 2 is socially sustainable development involving mostly intensely with a value of 1.0 percent with standardized coefficients is 0.354. These results showed that Sustainable social development is an aspect of sustainable development and content of socialist construction, including social structure, living conditions, people's quality of life, social justice, and social justice. Social relations, institutions, and social management mechanisms equally meet people's increasing needs both in the present and future.

Sustainable social development is assessed mainly through two fields economy and environment. That is, a sustainable society depends on positive economic changes and the assurance of legal and environmental factors environment, while simultaneously impacting economic development and the environment. Therefore, raising awareness, especially for leaders of advisory agencies and agencies performing state management tasks on the economy and environment, is very necessary. Only when understanding the relationship between economic development management and environmental management, can the goal of sustainable development be realized.

3.4 Result discussion

Sustainable development must simultaneously achieve the following three essential criteria:

(A) Sustainable economic development is a fast, safe, and quality development. Economically sustainable development requires the result of a financial system in which the opportunity to access resources is facilitated, and the right to use natural resources for activities and the economy is shared equally. The focus here is on creating common prosperity for all, not just on bringing profits to the few, within the allowable limits of the ecosystem and without infringing on the rights of the people, essential humans. Besides, the economic aspect of sustainable development includes several primary contents: Firstly, gradually reducing the consumption of energy and other resources through saving technology and changing lifestyles; Second, changes in consumption demand do not harm biodiversity and the environment; Third, equality in access to resources, living standards, health services, and education; Fourth, hunger eradication and absolute poverty reduction; Fifth, clean technology and industrial ecology recycle, reuse, reduce waste, regenerate used energy.

Moreover, a sustainable economy needs to meet the following requirements: (1) Having high GDP growth and GDP per capita. Developing countries in current conditions need GDP growth of about 5%/year to see signs of sustainable economic development. High-income developed countries still have to keep the growth rate. The poorer the low-income countries, the higher the growth rate must be. GDP structure is also a criterion for assessing sustainable economic development. Only when the share of industry and services in GDP is higher than that of agriculture can growth be sustainable. Economic growth must be growth with high efficiency, not accepting growth at all costs.

(B) Social sustainable development is assessed by the Human Development Index (HDI), income equality coefficient, education indicators, health, social welfare, and cultural enjoyment. In addition, social sustainability guarantees a harmonious social life; there is equality between social classes and gender equality; the gap between rich and poor is not too high and tends to close; The difference in living standards between regions is not significant.

Socially sustainable development focuses on equity, and society always needs to create favorable conditions for the field of human development and strive to allow everyone to develop their own potential and conditions good life. Thereby, for social justice and human development, HDI is the highest criterion for social development, including per capita income, people's intellectual level, education, health, life expectancy, and enjoyment of culture and civilization. Sustainable social development includes many main contents: Firstly, stabilizing the population, developing rural areas to reduce the pressure of migration to urban areas; Second, reducing the negative impact of the environment on urbanization; Third, improving education, eliminating illiteracy; Fourth, protect cultural diversity; Fifth, gender equality, paying attention to gender needs and interests; Sixth, increasing public participation in decision-making processes.

(C) Environmentally sustainable development. The process of industrialization, modernization, development of agriculture and tourism, urbanization, and new rural construction... all affect the environment and negatively affect the environment and natural conditions. Environmental sustainability is when using those natural elements, the quality of the human living environment must be ensured. It ensures the purity of air, water, land, geographical space, and landscape. The quality of the above factors should always be respected and regularly assessed and verified according to national or international standards.

Resources at a specific limit allow the environment to continue to support living conditions for humans and other living things on earth. Exploit and rationally use natural resources, protect the environment and improve the quality of the living environment. Environmentally sustainable development requires us to maintain a balance between preserving the natural environment and exploiting natural resources for the human benefit to support the exploitation of natural resources.

Environmentally sustainable development includes the following primary contents: Firstly, to effectively use natural resources, especially non-renewable resources; Second, development does not exceed the load-bearing threshold of the ecosystem; Third, to protect biodiversity, protect the ozone layer; Fourth, to control and reduce greenhouse gas emissions; Fifth, closely protect sensitive ecosystems; Sixth, to reduce emissions, overcome pollution (water, gas, soil, food), improve and restore the environment in polluted areas.

CONCLUSIONS

Vietnam has synchronously implemented many solutions to promote sustainable development and achieved many significant achievements such as stable macroeconomics, and economic growth of Vietnam is maintained at a high level, the quality of growth is improved. Moreover, sustainable development is both an urgent need and an inevitable trend of the social development process. This study used descriptive statistical tools, measuring scales with Cronbach's Alpha, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and regression analysis. The research results showed three factors affecting sustainable development in Vietnam by surveying 400 leaders working for 40 provinces and other people in Vietnam. Finally, the article's novelty identifies three key factors affecting sustainable development with a significance of 1.0 percent.

However, Vietnam needs to continue investing heavily in improving human resources quality. Focus on improving the quality of life for the poor, remote, and isolated areas, both physically and mentally, to achieve the Millennium Development as committed to human development.

(A) Improve growth quality, and ensure macroeconomic stability, primarily financial and monetary policies. Transforming the growth model mainly based on breadth to a harmonious combination of breadth and depth based on exploitation, efficient use of natural resources, and advanced scientific and technological achievements to increase productivity. labor productivity and improve the competitiveness of goods and services.

(B) Stabilize the population size, improve and raise the quality of the population; develop a culture in harmony with economic development, building and developing Vietnamese families; building new countryside, rationally distributing population and labor by region; improve the quality of education and training to raise the people's intellectual level and professional qualifications in line with the requirements of national, regional and local development.

(C) The State strengthens measures to combat degradation, effectively and sustainably use land resources, water environment protection, and sustainable use of water resources. Rational exploitation, economic and sustainable use of mineral resources; protect the marine, coastal, and island environment and develop marine resources; forest protection and development; reduce air and noise pollution in big cities and industrial zones.

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