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The Role Of Financial Development, Economic Growth And Foreign Trade in Sustainable Development: A Case Of Developing Countries

Bakhtiyar GARAYEV*

Anadolu University, Graduate School, PhD. Student, Türkiye, bakhtiyar.garayev@gmail.com, ORCID: 0000-0002-5789-6368

Research Asst. Esra KARPUZ

Kutahya Dumlupınar University, Kutahya Faculty of Applied Sciences, Department of Finance and Banking, Türkiye, esra.karpuz@dpu.edu.tr, ORCID: 0000-0003-2765-4082

Abstract

This study examines the relationship between sustainable development and indicators of financial development in emerging market economies. Among the indicators considered for financial development are the effects of financial advancement on sustainable development, national credit to the private sector, market value, foreign trade, and renewable energy. In order to determine the relationship between sustainable development and financial development, panel data analysis will be conducted by utilizing annual data from the period of 2010 to 2019. Between the years 2010 and 2019, financial development, market value, imports and exports in Morgan Stanley Capital International (MSCI) emerging market countries have positively influenced the sustainable development index. However, increases in domestic credits and renewable energy consumption have led to a decline in the sustainable development index. The consideration of multiple indicators enhances the robustness of representing financial development compared to relying on a single indicator. In this context, the study contributes to the literature. The findings of the research will guide the economies of developing countries to become more efficient, sustainable, and resilient to potential crises.

Keywords: Sustainable Development, Financial Development, Foreign Trade, Panel Data.

JEL Codes: C23, F10, G20, Q01

***Sorumlu Yazar (Corresponding Author)**

Sürdürülebılır Kalkınmada Finansal Gelişmişlik, Ekonomik Büyüme Ve Dış Ticaretin Rolü: Gelişmekte Olan Ülkeler Üzerine Bir Araştırma

Öz

Çalışmada gelişmekte olan ülke piyasalarında sürdürebilir kalkınma ile finansal gelişmişlik göstergeleri arasında ilişki incelenmektedir. Finansal gelişmişlik olarak ele aldığımız göstergeler arasında, finansal kalkınmanın, özel sektördeki ulusal kredilerin, piyasa değerinin, dış ticaretin ve yenilenebilir enerjinin sürdürebilir kalkınma üzerinde etkilerine dikkat edilmiştir Sürdürebilir kalkınma ve finansal gelişmişlik arasındaki ilişkinin tespit edilmesi için 2010-2019 dönemi çerçevesinde yıllık veriler ele alınarak panel veri analizi uygulanacaktır. 2010-2019 yılları kapsamında Morgan Stanley Capital International (MSCI) gelişmekte olan ülkele rdeki finansal gelişmişlik, borsa değeri, ithal ve ihracat sürdürülebilir kalkınma endeksini olumlu etkilemiştir. Yurtiçi krediler ve yenilenebilir enerji tüketimindeki artışlar ise sürdürülebilir kalkınma endeksinin düşmesine neden olmuştur. Birden fazla göstergenin ele alınması, finansal gelişmişliğin temsil edilmesinin bir göstergeye bağlı olmamasından daha güçlü hale getirmektedir. Çalışma bu kapsamda literatüre katkı sağlamaktadır. Çalışma bulguları, gelişmekte olan ülke ekonomilerinin daha verimli hale gelmesi, sürdürülebilir olması ve meydana gelebilecek krizlere karşı daha dirençli olması hususunda yol gösterici olacaktır.

Anahtar Kelimeler: Sürdürebilir Kalkınma, Finansal Gelişmişlik, Dış Ticaret, Panel Veri

JEL Kodları: C23, F10, G20, Q01

1.INTRODUCTION

The Brundtland Report, created by UN World Commission on Environment and Development (WCED) and shared with the world public in 1987, was likely essential for the concept's popularity, raising awareness of the environment-development link, and modifying its basis. The rise in environmental concerns, particularly those of a global scale, cleared the way for the link between economy and environment to acquire prominence and the notion of sustainable development to be more commonly discussed in the 1980s.

The Sustainable Development Index (SDI) is an indicator that measures the social, economic and environmental performance of a country or region. This index includes different dimensions of

sustainable development and generally assesses areas such as income inequality, access to education, health care and environmental sustainability. The main objective is to meet the needs of current generations and to increase social welfare and quality of life without jeopardizing the needs of future generations. This index can be used to monitor progress and provide guidance for policy makers to accomplish sustainable development objectives (Barrera-Roldán & Saldıvar-Valdés, 2002).

The Sustainable Development Index has been created by updating the Human Development Index (HDI) to assess the genuine impact of individuals on the environment. "Measuring Human Development in the Anthropocene" focuses on the modern era where human impact plays a significant role. This term examines the distinctions across geological epochs due to the effects of human activities on the global ecosystem (O'Neill et al., 2018). In this context, "Measuring Human Development" addresses the impacts of human activities on the economy, environment, and society, as well as the measurement of these effects on development" (O'Neill et al., 2018).

Sustainable development aims to ensure the long-term development of the society or country by keeping social welfare, economic growth and environmental sustainability in balance. It is possible to say that sustainable development has positive effects on economic recovery, environmental protection, technological innovations, global cooperation and social welfare. Since sustainable development is planned in the long term, economic growth is supported and social welfare increases by reducing inequalities. Investments in health and education promote increased social welfare. Attention is given to the more efficient use of natural resources. Countries collaborate together to overcome problems in a global scale. Sustainable development increases interest in technology innovations that cause less harm to the environment. In short, sustainable development aims at economic growth by protecting the environment and achieving social welfare in the long run (Barrera-Roldán, Sald´ıvar-Valdé and Correa, 1998).

The goal of sustainability is to use natural resources in order to satisfy the requirements of future generations while also maintaining environmental, social, and economic balance. In contrast, innovation is the production of new ideas, products, services, or business models, as well as the adoption of new techniques to better the current situation. Green innovation allows for the creation of solutions that decrease environmental impacts or enhance resource efficiency. Green technology, waste management, renewable energy, and energy optimization are instances of innovations that have contributed to environmental sustainability. By providing novel solutions and answers to social

challenges, innovation can improve social sustainability. Innovations in sectors such as health, education, and workforce development may enhance society's welfare and quality of life. In the commercial sector, innovation promotes the development of new business models as well as new goods and services. This can boost the competitiveness of an organization and contribute to its long-term success. Consumer Demand for Sustainable Products and Services Creates New Market possibilities: Consumer claim for sustainable services and products produces new market possibilities. This motivates firms to provide products and services that adhere to sustainability ideals (Beckerman, 1999).

As a result, the principles of sustainability and innovation are considered as complimentary. While innovation may provide the replies and opportunities essential for achieving sustainability goals, sustainability can also inspire the ethical and long-term management of innovation.

The influence of financial development on environmental property can be either beneficial or detrimental. The beneficial consequence of financial growth, particularly in developing nations, is that it stimulates the employment of new technology and leads to environmentally friendly industry. However, the fact that financial progress prompts to the influence of contagion enterprises and the usage of fossil fuels has a detrimental impact. Financial development is an important aspect in long-term growth. This impact is connected to the effects of financial development, private sector national loans, market value, global trade, and renewable energy on sustainable development (Koçak, 2017).

Financial system sophistication could increase economic development and investment. However, severe capital speculation or imbalances represent issues from a sustainability standpoint. Companies' market worth reflects their economic performance. A strong and sustainable business sector could promote job growth and economic success. International commerce can help to boost economic growth. However, without proper regulation, economic activities can have a severe impact on environmental sustainability. The size of domestic credit has the capacity to offer resources for both investment and consumption. Excessive borrowing, on the other hand, might jeopardize economic stability. Renewable energy sources, as compared to fossil fuels, can have a lower environmental effect. Renewable energy can help with climate change and environmental sustainability. The interaction of these components is complex and diverse. The achievement of sustainable development relies on the careful management of these aspects, as well as the alignment of economic, environmental, and social objectives.

The study focuses on yearly data from 20 countries in the Morgan Stanley Capital International (MSCI) Emerging Markets Index, as established by the research company MSCI from 2010 to 2019. The Sustainable Development Index (SDI) was employed as the dependent variable in the study. In regard to sustainable development, independent and control factors such as financial development, market values, total trade, domestic credits, and renewable energy utilization have been investigated. Given the lack of a comprehensive inquiry of the indicated countries' sustainable development, this research adds to the literature in this topic.

2. Lıterature Revıew

Numerous economic literature has been produced suggesting that the growth of the finance influences the development cycle of the real economy. According to the literature, studies on renewable energy and financial development receive increasing attention, considering sustainable development in general has a link with the environment and the economy.

For Sub-Saharan Africa to have sustainable development, government policies and resources must be directed toward fixing rural issues. For impoverished farmers to prosper, land reform, credit, enhanced expansion, more government accountability, and public engagement are crucial. Additionally, reforms to policies in the region must be accompanied by enhanced measures to compensate for export shortfalls caused by forces outside their control. In order to preserve a stable economic path, a large percentage of debt must be wiped off (Cheru, 1992).

Shahbaz, Khan and Tahir (2013) explored the functions of energy expenditure, financial development, capital, export and import in economic development in China during 1971-2011, and found that every aspect had positive and substantial impacts. This research has made a substantial addition to the science of energy economics, and new ideas for exploiting renewable energy resources to fulfil the rising energy requirement in the process of sustainable growth have been given to policymakers.

Within the scope of 1975-2011 financial development indicators such as the quantity of local credit in the private sector and the linkage between economic development, energy consumption, financial and sustainable development were studied in India, Nepal, Pakistan, Bangladesh and Sri Lanka. According to the findings, an important relationship occurs between fixed effect model consumption

of energy, financial and economic growth and indicators of financial growth have significant effects on energy need (Alam et al.,2015).

Many research have been directed on the effect of microcredits on financial leverage in businesses. The findings found by different authors however, differed significantly. As consequently, it was found that financial leverage had a negative impact on company efficiency (Javed, et al.,2015). Through panel causality and FMOLS regression, Zakarya et al., (2015) approved the environmental pollution haven assumption by finding a long turn impact of FDI inflows and the consumption of energy on CO2 emissions in Russia, India, Brazil and China.

Paramati et al., (2016) evaluated the impact of the stock market and foreign direct investment (FDI) on renewable energy applications across 20 developing countries. According to the study, both financial exchange and FDI capitalization have contributed considerably to increasing renewable energy usage. Furthermore, both sources are increasingly critical for renewable energy enterprises.

Behera and Dash (2017) discovered that the use of energy and FDI had a beneficial influence on CO2 emissions in 17 South and Southeast Asian economies, corroborating the pollution haven theory.

Rudolph and Figge (2017) analysed the disparate effects of globalization on ecological footprint (EC) across dimensions (production, consumption and total trade).

Sarkodie and Strezov (2018) indicate that FDI inflows for the top five countries that contribute the most harm to greenhouse gas emissions (South Africa, China, India, Indonesia, and Iran) are in agreement with Sustainable Development Goal 17 for the establishment of global partnerships for sustainable growth. They investigated at how usage of energy and economic development impacted greenhouse gas outflows 1982-2016. The study discovered a significant beneficial influence of energy consumption on emissions of greenhouse gases, justifying the pollution haven theory. FDI inflows combined with green technologies transfer and reforms in labor and standards of environment management will assist countries that are developing in achieving the SDGs. Management of greenhouse gas outflows is dependent on improved energy effectiveness, the use of clean and contemporary energy innovations such as renewable energy and nuclear power, and the use of carbon dioxide catch and capacity for fossil fuel and biomass-based power generating systems.

Kalaycı and Hayalolu (2018) evaluated the influence of globalization and trade transparency on CO2 outflows considering NAFTA countries as a case study. The study involves panel data analysis and

is based on yearly data from 1990 to 2015. It emerged that there is a beneficial link between financial globalization, CO2 outflows and trade transparency. The research also investigates the Environmental Kuznets Curve's applicability to the target nations. The study indicates a beneficial correlation between CO2 emissions and economic development in both linear and square form.

Le and Bao (2019) determined that the utilization of both renewable and non-renewable energy has a long-term beneficial influence on economic development in selected countries, as well as government spending, gross fixed capital creation, financial growth and trade transparency. The empirical findings suggest that in order to accomplish sustainable development goals in the Caribbean and Latin America emerging markets and economies, fiscal policies for macroeconomic stability, as well as effective energy strategies, financial and international trade policies, must be properly implemented.

The determinants influencing sustainable development as evaluated by adjusted net reserve funds are investigated using panel data from 12 Asian countries during 1990-2014. When the results of these two estimations are compared, the Hausman test clearly shows that the random effects model is more beneficial than the fixed effects model. The random effects estimation outcomes show a more substantial and better by and large fit. According to the findings, per capita income and financial growth have a beneficial and significant affect on sustainable development, however inflation rate, natural resource lease, and time have a negative and critical impact. Maintaining an optimal natural asset balance is considered as essential for sustainable growth (Koirala and Pradhan, 2019).

Maji and Sulaiman (2019) examined the effect of green energy on economic development in 15 West African economies for 1995-2014. The consumption of clean energy sources such as wind, solar power, and hydroelectricity, which have no detrimental impact on human health or the climate is limited in West Africa. Other energy sources such as wind power, geothermal and solar power should be increased in the West African region's renewable energy mix, and stronger effort from West African authorities to develop sustainable renewable energy is required.

Kayani, Ashfaq, and Siddique (2019), conducted a study of the ten countries that produced the most CO2 between 1990 and 2016 and discovered a long-term, unidirectional causal relationship between CO2, financial growth (FD), and urban population using panel data analysis.

Ulucak and Khan (2020) discovered that financial growth and renewable energy sources are the clue elements influencing the quantity of sustainable development in the nations they studied.

Trade between countries has been indicated to have a positive impact on world progress toward the nine environmental goals of sustainable development. When global trade is considered, while rich country's objective scores for sustainable development are greater than those of less fortunate countries, these scores would be more vulnerable if trade were not a variable. Furthermore, trade between distant nations has contributed more to the satisfaction of these global sustainable development goals than trade among others. Distant commerce is more useful for reaching sustainable development goals in rich nations than nearby trade, but it has an adverse effect on target scores for sustainable development objectives in emerging countries. It has been declared that international trade accounting and management must be enhanced (Xu et.al., 2020).

Bao and He (2022) stated that green credit accounts for more than 90% of total green finance supplying in China and is the most crucial element of the green finance. The achievement of China's financial clean transformation is mainly determined by whether green credit properly encourages the sustainable and green growth in this region

Jiang and Chang (2022) highlighted that stock market growth and foreign direct investment inflows play a vital act in boosting green energy production in the long term in their research encompassing the years 1991-2019 based on the empirical results of group-based calculations. Furthermore, economic estimates indicate that FDI inflows tend to favour renewable energy development in Russia, Singapore, South Korea, India, China and Indonesia. However, the success of the stock market has benefited renewable energy generation and long-term growth in all identified Asian economies.

Samour, Baskaya, and Tursoy(2022), used the new bootstrapping autoregressive distributed lag technique in conjunction with Granger causality analysis to investigate the long- and short-term interactions between economic development, FDI, financial growth, and renewable energy expenditure in the UAE from 1989 to 2019. The study utilizes assessing approaches to present the significant findings and implications for UAE authorities. The current study provides substantial empirical evidence that financial growth, FDI and economic expansion may greatly enhance renewable energy usage in the UAE. Accordingly, it is basic to foster financial growth in the UAE in order to avoid financial risks that weaken financial market stability and have a detrimental impact on

the REC. Moreover, authorities in the UAE ought to support the possibility of green financing and supply more cash for initiatives in green energy to ensure the UAE's long-term energy growth.

Usman and Balsalobre-Lorente (2022), investigated the ecological footprint of industrialisation, total reserves, and the increase of financial, natural resources and renewable. This study analyses panel data in countries that gained industrialization from 1990 to 2019. The panel algorithm's outcomes are resistant to heterogeneity, and the cross-section dependency indicates to the differed impact of industrialization, all reserves, and financial development, all of which have greatly increased environmental pollution in these nations. As a result, the availability of natural resources and friendly power decreases environmental pollution over time. These findings agree with long-term and divided level estimates. Furthermore, the panel Dumitrescu and Hurlin causality findings demonstrated a one-way causality link between industrialization and renewable energy, and between ecological footprint and natural resources. There was also a bidirectional causality relationship discovered between financial growth and overall reserves, as well as the ecological imprint. Finally, numerous key policy consequences for protecting the quality of the environment in newly industrialized economies are Proposed.

3. Methodology

In this study, annual data for the 2010-2019 period of 19 countries in the MSCI Emerging Markets Index (MSCIEF) as of November 2022 are used. MSCIEF is an index that has been calculated since 1988 by the investment research firm Morgan Stanley Capital International to measure the performance of emerging stock markets (https://www.msci.com/emerging-markets). Complete data on the dependent and independent variables used in the study have been available since 2010. The data on the sustainable development index (SDI), which is used as dependent variable, were obtained from the https://www.sustainabledevelopmentindex.org/ website, and the data on financial development indicators, which are used as the independent variables and control variables were acquired from the World Bank database. Empirical description of the variables are given in Table 1.

Table 1. Variables Used in the Study

Code	Variable name	Description	Type
SDI	Sustainable development	Sustainable Development Index	Dependent

FD	Financial development	Financial Development Index	Independent
CRD	Domestic credits	Domestic credit to private sector (% of GDP)	Independent
MV	Stock Market Value	The total value of shares traded (% of GDP)	Independent
TRD	Total trade	The sum of exports and imports (% of GDP)	Control
ENGY	Renewable energy	Renewable energy consumption (% of total energy consumption)	Control

Panel data regression models are used to determine the relationship between the Sustainable Development index and financial development indicators. The equation for the panel data model created to determine this relationship is shown below:

$$SDI_{it} = \beta_{0it} + \beta_1 FD_{it} + \beta_2 MV_{it} + \beta_3 CRD_{it} + \beta_4 TRD_{it} + \beta_5 ENGY_{it} + \varepsilon_{it} \quad (1)$$

$$i=1,\ldots,20 \qquad t=2010,\ldots,2019$$

The F test and the Breusch-Pagan LM test are used to determine which panel data model can be used from between the classical model, fixed effects model or random effects model. Then, Hausman test is applied to support choosing between fixed effects and random effects panel data regression models. After selecting the panel model, homoscedasticity, autocorrelation and cross-section dependence tests are performed according to the model. According to the results obtained with these tests, models deviating from the assumptions are re-estimated by using robust standard errors. (Yerdelen Tatoğlu, 2012).

4. Empirical Findings

Descriptive statistics regarding the variables included in the model of the study are given in Table 2. The mean of the Sustainable Development Index (SDI), which is used as a dependent variable in the model, is approximately 0.65. On the other hand, the min and max values of the index (SDI) in MSCIEF countries for the period 2010-2019 vary between 0.25 and 0.81. The mean value of the

Financial Development Index (FD) is approximately 0.50. In these countries, the maximum and minimum values of the FD variable are very close to the SD variable. This indicates that sustainable development and financial development are at different levels in MSCIEF countries during the analysis period.

Table 2. Descriptive Statistics of The Variables

Variables	Obs.	Mean	Std. Dev	Min.	Max.
SDI	190	0.647	0.155	0.25	0.81
FD	190	0.495	0.141	0.25	0.84
MV	190	36.692	43.294	0.70	355.52
CRD	190	74.053	41.544	23.33	165.39
TRD	190	70.785	36.714	22.77	168.34
ENGY	190	17.976	12.257	0.01	47.06

The results of the correlation analysis and Variance Inflation Factor (VIF) values regarding the variables of the study are presented in Table 3. As it seen in Table 3, there are high positive correlations between financial development indicators. Based on this result, it can be said that the coexistence of financial development indicators in the regression model may cause a multicollinearity problem. In the literature, VIF values are considered in order to determine whether a multicollinearity problem will occur in regression models, and it is stated that multicollinearity problems may occur in cases if VIF values are greater than 5 (Rogerson, 2001; Ringle,Wende and Becker 2015; Garson, 2016). As it seen Table 3, the VIF values of the variables are less than 5. This result shows that contained the variables together in the model will not cause multicollinearity problem.

Table 3. Correlation Analysis Results and VIF Values of The Variables

Variables	SDI	FD	MV	CRD	TRD	ENGY	VIF[a]
SDI							
FD	-0.495***						4,25
MV	-0.392***	0.673***					3,69
CRD	-0.434***	0.843***	0.665***				2,25

TRD	-0.135*	0.319***	0.023	0.219***			1,46
ENGY	0.549***	-0.225***	-0.269 ***	-0.233***	-0.397***		1,32

Note: a VIF indicates variance increase factor.

***, **, * indicate statistical significance at the level of 1%, 5% and 10%, respectively.

The model results of the relationship between the financial development and sustainable development indices in the MSCI developing countries are presented in Table 4. F test and BP LM test results of the models are statistically significant at the 1% level. This result indicates that the classical panel data model cannot be used. The Hausman test results applied in order to decide between fixed and random effects models are statistically significant at the 1% level, so it shows that the use of fixed effects model in regression models is appropriate. Assumptions of homoscedasticity, autocorrelation and cross-section dependence for the fixed effects model were tested with the Modified Wald test, Durbin-Watson and Baltagi-Wu LBI test and Pesaran test (CD), respectively. According to the results obtained, there are homoscedasticity, autocorrelation and cross-section dependence problems that prevent effective estimation in the model. To overcome these problems, the model is estimated with robust standard errors.

Table 4. Fixed Effect Panel Regression Model Results

Dependent Variable: DYY				
Independent Variables	**Coef.**	**Robust Std. Err.**	**T**	**P> | z |**
FD	0.28328	0.13154	2.15	0.045**
MV	0.00013	0.00007	1.97	0.065*
CRD	-0.00197	0.00063	-3.11	0.006***
TRD	0.00139	0.00071	1.94	0.068*
ENGY	-0.00490	0.00210	-2.33	0.032**
CONST	0.63801	0.11418	5.59	0.000***
Number of Obs	190			
F-test[a]	156.29***			
BP LM Test[b]	626.69***			
Hausman Test[c]	25.85***			
F Statistics[d]	171,82***			
R^2	0,3233			

Note: ***, **, * indicate statistical significance at the level of 1%, 5% and 10%, respectively.

a. F-test decides between OLS model and Fixed effects model.

b. LM test decides between OLS model and Random effects model.

c. Hausman test supports choosing between random effects model and fixed effects model.

d. It shows the statistically significance level of the model.

According to Table 4, the results of the F statistics in the panel regression model shows statistically significant results at the 1% significance level in explaining the effect of financial development indicators on sustainable development. The R2 value showing the power of the model to explain sustainable development is 32.3%.

According to the model results, the effect of financial development index (FD) and stock market value (MV) variables, which represent financial development indicators, on sustainable development is statistically significant and positive at the level of 5% and 10%, respectively. In other words, an increase in the financial development index and stock market value of MSCI developing countries increases the sustainable development index of these countries.

As can be seen from table 4, Domestic credits variable (CRD), which is another financial development indicator, has a statistically significant and negative effect on sustainable development at the 1% level. According to this result, an improvement in local credits provided to the private area causes a decrease MSCI developing countries' sustainable development index.

Table 4 shows that the effects of total trade and renewable energy variables, which are the control variables of the study, on the sustainable development index are statistically significant. While the increase in the sum of exports and imports affects the MSCI developing countries' sustainable development index positively; On the other hand, the expansion in renewable energy consumption has a negative effect on sustainable development.

5. Conclusıon And Dıscussıon

Sustainable development is a method of balancing economic, activity and social development while also addressing the demands of future generations as well and managing crises. Today, sustainable development encourages green technology and ecologically responsible corporate strategies. This seeks to direct economic growth in a way that avoids environmental harm. One of the greatest impediments to sustainable development is the impacts of climate change and global warming. It is

critical to minimize greenhouse gas emissions and adapt to the consequences of global warming within the condition of sustainable development.

Sustainable development is considered and accomplished variously in developed and developing countries. Developed civilizations typically have a higher capital stock. Wide infrastructural opportunities, regular roadways, industries, large-scale businesses, major building purchases, dam and irrigation networks, and a myriad of other development indicators all provide significant prospects for current economic output. Modern technologies are essential to developed economies. They have easier and faster access to environmental protection systems. Although the socioeconomic background is greater, implementing the legal system for environmental protection is less expensive.

Developing countries confront distinct challenges in accomplishing sustainable development than developed economies. Because they have significantly lower amounts of GDP, the most essential socioeconomic aim is to boost productivity. A high population growth rate can be an essential growth force or problem for emerging countries. If resources are utilised entirely and productively, plenty of people will drive economic development by creating requests for the goods and services supplied. If emerging economies can maintain current pollution levels while raising energy consumption in both agriculture and industry, they will be able to overcome the growth process without relying on the experiences of developed nations (Gürlük and Karaer, 2003).

In this study, the impacts of financial development, market value, total trade, domestic credits and usage of renewable energy on sustainable development are investigated. Within the context of the study, yearly data from 20 developing countries from 2010 to 2019 were examined. Separately, the affects of independent and control data on the sustainable development index are explored.

The study indicated a robust and positive link between financial development, market value and overall trade, and sustainable development. Koirala and Pradhan (2019) evaluated the elements that affect sustainable growth in a research undertaken by 12 Asian nations from 1990 to 2014. According to the study's conclusions, per capita income and financial development have a affirmative and crucial influence on sustainable development. In their analysis, Xu et.al., (2020) discovered that international commerce had a favorable impact on world progress toward fulfilling the nine environmental sustainable development goals. It was emphasized that international trade accounting and administration must be modernized in order to secure and ensure sustainable development. Jiang and Chang (2022) discovered comparable results in their study, concluding that stock market development

had a positive influence on clean energy generation and sustainable development in specified Asian countries. Financial development, market value, and overall commerce all have positive impacts on long-term development in emerging countries. Economic growth and development processes may be developed and improved in a more balanced method when these components come together. Financial development indicates that the economy has a strong financial system. Financial systems in emerging economies improve, savings can be utilized more successfully, prospects for investment expand, and entrepreneurship is developed. This, in turn, encourages long-term development by boosting an employment and an economy. The growth in the market value of businesses and industries draws the confidence and interest of investors. This helps enterprises in finance their expansion and investing in new initiatives. The growth of total trade indicates production in the countries capability and diversification of goods are improving. Foreign commerce offers access to new markets and can boost the competitiveness of domestic firms. It can also facilitate the transfer of technology and increase efficiency in production. It has been determined that the efficient operation of stock exchanges and outstanding connections in foreign trade, market value, and general trade have a positive effect on long-term growth. The countries under consideration have a significant part of global imports and exports, which supports sustainable development.

In contrast, it has been discovered that domestic credits and the usage of renewable energy have negative effects on sustainable development. Usman and Balsalobre-Lorente (2022) determined that utilizing renewable energy has a positive effect on sustainable development. It is expected that the developing countries examined in the study face a cost insufficiency since renewable energy and constructing infrastructure are extremely expensive. Renewable energy projects are long-term, but developing nations select short-term ones. At the same time, it is obvious that green finance investments are inadequate. According to Alam et al. (2015), domestic credits have an adverse influence on sustainable development in the SAARC territory. When promoting consumers and investors, the emphasis should be on policies that promote a successful financial system and banking reforms that offer sufficient credit. The fact that the countries analyzed in this study frequently obtain short-term credits and have a low green credit ratio in their portfolio may indicate that it has a negative effect on sustainable development.

Although study on the linkage between sustainable development and financial growth are limited, there is no study on developing economies that is similar to the data we will analyze. Studies on sustainable development, foreign commerce, economic and financial development, as is well known,

attract a lot of attention in the literature. Furthermore, while there are research investigating at the relation between factors, the number of studies that examine at the relationship with sustainable development is restricted. In the future, it is possible to raise interest in green finance investments and implement a more complete analysis by taking into account other financial variables.

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