ISSN: 2338-8412 e-ISSN : 2716-4411

Ekombis Review – Jurnal Ilmiah Ekonomi dan Bisnis
Available online at : https://jurnal.unived.ac.id/index.php/er/index
DOI: https://doi.org/10.37676/ekombis.v12i4

Financial Development's Role in the 2030 Sustainable Development Agenda: Asian Countries

Suci Rismawati [1]; Purbayu Budi Santosa[2]
[1,2] Department of Economics and Development Studies, Faculty of Economic and Business Universitas Diponegoro
Email: [1] sucirismawati@students.undip.ac.id; [2] purbayubs@gmail.com;

How to Cite :
Rismawati, S., Santosa, P.B. (2024). Financial Development's Role in the 2030 Sustainable Development Agenda: Asian Countries . EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis, 12(4). doi: https://doi.org/10.37676/ekombis.v12i4

ARTICLE HISTORY
Received [10 Juni 2024]
Revised [24 September 2024]
Accepted [09 Oktober 2024]

KEYWORDS
Development;
Economy;
Financial;
Sustainable Development Goals;

ABSTRACT

The purpose of achieving sustainable development goals (SDGs) requires the mobilisation of finance and its alignment with sustainability principles. This study intends to examine the influence of financial development on the attainment of Sustainable Development Goals (SDGs) in an economy. Approach - The authors conduct an analysis of a sample comprising 35 Asian countries, focusing on their SDG (Sustainable Development Goals). Patterns and indicative indicators of the Sustainable Development Goals (SDGs). A probit model is used to analyse the effect of Financial development impacting the trajectory of the Sustainable Development Goals. Then, a pairwise Granger causality test is used for Examining the relationship between the Sustainable Development Goals and financial development

The results suggest that there is a favourable relationship between financial development and the advancement towards the Sustainable Development Goals. The test for causation There is a reciprocal relationship between financial development and industry, infrastructure, and innovation. Enhancing financial growth and promoting sustainable cities and communities, as well as fostering financial development and taking action on climate change, There is a one-way relationship where gender equality influences financial progress. Research limitations/ramifications - The findings also have implications for the government of a nation as the privately-owned enterprises.

INTRODUCTION

The 2030 UN Agenda, implemented in 2015, functions as a comprehensive strategy to accomplish sustainable development. The agenda consists of 17 Sustainable Development Goals (SDGs) that span the economic, social, and environmental dimensions of sustainable development (Allen, 2018). The goals can be located in Table A1 in the Appendix (Bebbington, 2018). In order to accomplish these objectives, the UN General Assembly has officially designated the ten-year period running up to 2030 as the "Decade of Action and Delivery." This endeavour necessitates

the collaboration of all parties involved, encompassing governments, policymakers, the corporate sector, and the broader society, in order to strive towards attaining the Sustainable Development Goals (SDGs). To accomplish the Sustainable Development Goals (SDGs), it is necessary to gather financial resources and facilitate the transfer of cutting-edge technology to underdeveloped nations. In order to facilitate this, it is imperative for governments to assume a pivotal role, primarily encompassing the implementation of legislation and regulations, as well as the allocation of financial aid. Nevertheless, in underdeveloped or impoverished nations, governmental aid frequently proves inadequate (Allen, 2016).

The government plays a vital role in national governance, as it is essential for enterprises and society to make substantial contributions towards accomplishing common objectives that are advantageous to the public. Implementing a "glocalised" approach to accomplish the SDGs, which focuses on generating value both at the national and community levels, is a means to attain an ideal state where value creation and global sustainable development are realised (Buera, 2011). The significance of implementing an inclusive strategy is further exemplified by the estimates presented by the United Nations Conference on Trade and Development (UNCTAD). According to the estimations provided by Alagpuria (2021), in order to accomplish the Sustainable Development Goals (SDGs), it will be necessary to make annual investments ranging from around US$5 to US$7 trillion from 2015 to 2030. Approximately 15% of this sum is projected to be financed through public funding. This affirms the necessity of financing a yearly deficit of approximately US$6 trillion through private capital, specifically via corporate organisations and direct investment. Foreign Direct Investment (FDI) is an essential method for developing countries to secure external money. It plays a significant role in attaining Sustainable Development Goals (SDGs) concerning fundamental infrastructure, access to clean water, sanitation, and renewable energy.

Based on data from the UNCTAD database, while there has been a decrease in global foreign direct investment (FDI), the percentage of FDI directed towards developing nations has risen to 54%. Developing Asia specifically has seen a surge of 4% in FDI (Abidin, 2015). Host country policymakers should endeavour to enhance local conditions. This is because improved local circumstances not only attract foreign direct investment (FDI) but also allow the host economy to fully reap the advantages of foreign investment. The existence of insufficient physical and human resources, along with underdeveloped local financial systems, suggests that the advantages of foreign direct investment (FDI) may not be completely achieved without a well-established financial system. While governments and companies typically prioritise efficiency and cost reduction in their pursuit of financial growth, adopting a long-term sustainability perspective can yield social benefits by enhancing society's capacity for sustainability (Adeola, 2020). This agenda has prompted financial systems to reassess their roles and actively participate in national endeavours to effectively utilise public resources. This entails identifying novel methodologies that can facilitate advancements in attaining the Sustainable Development Goals (SDGs). The SDGs highlight the significance of actively engaging and involving people in the domestic financial sector in order to generate social value. This is because effectively using domestic resources is crucial for stimulating economic growth and development. The private sector has a significant impact on advancing financial development by fostering economic growth and diminishing poverty, which is essential for expediting the attainment of the SDGs (Albareda-Tiana, 2018).

The sector possesses qualities such as technical innovation and flexibility that can enhance the process and make substantial contributions by offering resources, expertise, and experience. The impact of a strong financial system on economic growth has been thoroughly studied, but its function in promoting sustainable development is a comparatively recent topic of research (Samsudin et al., 2023). The concept of sustainable development is predicated on the convergence of three acknowledged factors: economic, environmental, and social. However, achieving this concept continues to pose significant challenges. This has sparked scholarly and policy debates over the role of financial development in attaining sustainable development. Our objective is to

explore this uncharted territory by examining the influence of financial development on the attainment of the Sustainable Development Goals (SDGs).

We have selected Asian countries for two primary reasons. Firstly, more than two-thirds of these countries are categorised as low- or middle-income countries, indicating that they necessitate increased financial assistance. Furthermore, UNCTAD reported in 2020 that the ongoing pandemic is expected to result in a substantial decline of 30-45% in foreign direct investment (FDI) inflows in developing Asia. As a result, the responsibility will transfer to local economies. In order to examine the influence of financial development on sustainable development, we explore the cause-and-effect link between financial development and the Sustainable Development Goals (SDGs). This study has significant ramifications for governments and policymakers in acknowledging and adapting the Sustainable Development Goals (SDGs) to align with the specific circumstances of each country.

LITERATURE REVIEW

Financial development refers to the progression of improving and broadening the financial sector of an economy. This process involves the creation of financial institutions, financial markets, and financial instruments. Additionally, it encompasses the enhancement and enlargement of diverse financial services, including banking, insurance, capital markets, and investment prospects (Abidin, 2015; Acheampong, 2019). The objective is to streamline the effective distribution of financial resources and foster economic expansion. Financial growth necessitates the adoption of strategies to enhance the availability of financial services, foster financial inclusiveness, and reinforce the stability and durability of the financial system. The financial sector plays a vital role in mobilising and distributing financial resources for productive investment, facilitating economic activity, and promoting the attainment of sustainable development goals (SDGs) (Arcand, 2015).

Within the realm of academic research papers, the examination of financial development centres on its influence on attaining Sustainable Development Goals (SDGs) specifically in Asian nations. The stable values of financial development indicators serve as dependable forecasters for future values of growth indicators. More economically advanced countries exhibit superior economic development rates in comparison to less developed ones (Ayyagari, 2010). This is because the expenses linked to acquiring external funding are less expensive, giving countries that depend more on foreign capital a competitive edge. According to the Neoclassical perspective, foreign investment stimulates economic growth through the provision of money, expansion of the labour force, and advancement of technology. An improved financial system also enhances the attainment of a larger trade surplus and maximises the advantages derived from foreign investment. According to economic theory, a robust and efficient financial system is crucial for economic advancement (Altinay & Taheri, 2019). It facilitates the allocation of savings towards productive endeavours and fosters sustainable economic growth. According to the World Bank, "green growth" refers to an economic expansion that maximises the utilisation of natural resources while minimising pollution.

The notion of green growth is in line with the concepts of sustainable development, encompassing the reduction of carbon emissions, significant economic expansion, environmental preservation, and social inclusiveness (Abbasi, 2020; Akadiri, 2020). These factors position green growth within the context of the Sustainable Development Goals. Literature has shown a connection between financial development and sustainable development. Financial development contributes to sustainable development by mitigating income inequality (Alola, 2019; Armeanu, 2021). The study utilised panel data from 12 Asian nations spanning the years 1990 to 2014. The researchers discovered that the degree of financial development has a substantial influence on sustainable development. This influence is accomplished through diverse strategies, such as encouraging savings, which then fosters investment and facilitates better economic growth.

The study's findings suggest an inverse correlation between financial development and sustainable development. According to the analysis, economic development patterns that are not

sustainable could put the achievement of SDG 13 and SDG 7 at risk (David-West, 2018). The study seeks to ascertain the correlation between economic growth and poverty reduction, as well as the potential effects of income disparity on this relationship. The study revealed that while economic expansion possesses attributes that mitigate poverty, the escalating rate of inequality intensifies poverty. Asian economies are regarded as experiencing subpar performance, primarily due to the significant challenge of environmental deterioration. A study conducted on 15 Asian economies between 1990 and 2014 found a direct relationship between the level of financial development and the rise in CO_2 emissions. Enhanced financial development leads to increased income for individuals with low economic status, therefore diminishing poverty and reducing disparities in income distribution.

METHODS

The information provided

The SDG numbers are obtained from the United Nations SDG Report. The data for the independent variables and control variables were acquired from the World Bank Database (Khan, 2010). As a measure of financial development, we utilise the ratio of domestic credit to the private sector (CTPS) to Gross Domestic Product (GDP). The measure mentioned is a dependable gauge of financial development since it takes into account the credit given to the private sector, which allows for the efficient allocation and utilisation of funds to more effective channels (Jamel, 2017). The control variables consist of Foreign Direct Investment (FDI), Population (POP), Gross Domestic Product (GDP), Labour Participation (LP), and Consumption Expenditure (CE).

FDI is the logarithm of the mean FDI inflows. Considering that foreign development fosters sustainable development, we expect a direct and favourable relationship between Foreign Direct Investment (FDI) and the achievement of the Sustainable Development Goals (SDGs). POP indicates the natural logarithm of the total population of each country. Thus, we expect the POP variable to have a negative coefficient. Considering that sustainable growth is impacted by economic expansion, we expect a favourable coefficient for the GDP variable. The LP variable denotes the rate at which individuals participate in the workforce, as measured by the International Labour Organisation (ILO) (Bebbington, 2018).

Instead of assessing the unemployment rate, we utilise the participation rate, which takes into account both employed and unemployed individuals and represents the complete workforce, encompassing those who desire to work but are presently not employed (Rosyada, 2018). The possibility of a decreasing rate of people actively participating in the workforce is seen as a potential obstacle to achieving steady economic growth. Hence, we expect a clear and direct relationship between LP (Local Partnerships) and SDGs (Sustainable Development Goals). CE stands for the portion of Gross Domestic Product (GDP) that represents final consumption expenditure, as defined by Apostolopoulos et al., (2018).

Methodology

In order to evaluate the influence of financial development on the trends of Sustainable Development Goals (SDGs), we initiate the research by employing an ordered probit model. SDG trends are worldwide benchmarks that highlight the importance of three fundamental elements required for attaining sustainable development. The Sustainable Development Report utilises SDG trends to assess a country's advancement towards accomplishing the goals set for 2030. The determination is made by assessing the country's recent performance on specific parameters. Furthermore, it aids in assessing whether the present rate of progress will be adequate to accomplish the objectives by 2030. The sustainable development report elucidates the technique used for trend grading, as outlined by Sari et al., (2019). The progress gained in accomplishing specific markers is explained using a four-arrow technique. Every financial advancement associated with Sustainable Development (SD) indicator trends is reassessed using a rating

ranging from 0 to 4. A score of 0-1 signifies a "declining" goal trend, whereas a score of 1-2 signifies a "stable" trend. A score of 2-3 signifies a moderate level of advancement, whilst a score of 3-4 suggests that one is either on track or sustaining their level of achievement.

Goal trends are established by computing the average of the values for all indicators within each target, using the data that is currently accessible. These indicators offer a quantifiable assessment of a country's advancement since the implementation of the Sustainable Development Goals (SDGs) and aid in evaluating the congruence between policy implementation efforts and emerging outcomes. Trends are determined by analysing all indicators associated with the goals. The purpose is to illustrate the overall progress in accomplishing the goals over time, encompassing all indicators. Hence, trends offer significant insights into a nation's advancement towards attaining the Sustainable Development Goals (SDGs). In order to evaluate the influence of financial development on each Sustainable Development Goal (SDG) trend, we calculate the following equation:

$$P(\text{Trend}_i > j) = g(X_i\beta_j) = \frac{\exp(\alpha j + Xi\beta j)}{1 + \exp(\alpha j + Xi\beta j)} j = 0, 1, 2, 3, 4$$

The trend is a discrete variable obtained by converting the SDG trend dashboard into an evaluation model. SDG 10 and SDG 12 have been omitted from the analysis because there is insufficient data available. Within this framework, the letter "i" symbolises an Asian nation, whereas "Xi" denotes a vector comprising of CTPS, FDI, POP, GDP, LP, and CE. This study aims to ascertain the objectives that are significantly impacted by financial development. In light of the observed patterns in goal attainment, our investigation will concentrate on examining the goals that are notably influenced by financial development in order to comprehend the causal connection. To conduct a more in-depth analysis, we establish a distinct panel and assess the existence of cross-sectional dependence. The occurrence of typical disruptions and unobserved variables that ultimately lead to residual terms can heighten the probability of significant interdependence findings among cross-sectional units in the panel dataset.

Failure to acknowledge cross-sectional reliance can lead to erroneous conclusions and potentially severe economic consequences, such as substantial bias and distortion. We employ the CD approach to investigate cross-sectional dependence. Pesaran (2004) proposed a primary test for cross-sectional dependence (CD) by utilising the average pairwise correlation coefficient of ordinary least squares (OLS) residuals obtained from a conventional augmented model. The Dickey-Fuller test.

↓	→	↗	↑
Decreasing Decreasing means that the country moves in the wrong direction	Stagnating Score remains stagnant or at a rate below 50% of the growth rate needed to achieve the SDG by 2030	Moderately Improving Score increases at a rate above 50% of the required growth rate but below the rate needed to achieve the SDG by 2030	On track or Maintaining SDG achievement Score increases at the rate needed to achieve the SDG by 2030 or performance has already exceeded SDG achievement threshold

Source(s): The Sustainable Development Report, 2020

Regression Analysis for Individual Series

This test is applicable to both stationary and non-stationary panels under normal circumstances (FAN et al., 2023). When the number of observations (N) exceeds the number of time periods (T), the proposed LM statistic may exhibit severe distortion in its magnitude. Nevertheless, the CD statistic proposed by Pesaran (2004) remains applicable in cases where the number of observations (N) is more than the number of time periods (T). Empirical evidence indicates that the CD test consistently yields an average of 0 for fixed values of T and N. Furthermore, it remains

reliable even when applied to diverse dynamic models (Pesaran, 2004). The CD statistic is derived using the following equation:

$$CD = \sqrt{\frac{2T}{N(N-1)}}\left(\sum_{i=0}^{N-1}\sum_{j=i+1}^{N}\hat{\rho}ij\right)$$

βi represents the pairwise correlation that is calculated based on the residuals. The null hypothesis asserts the lack of cross-sectional dependence. In order to confirm the presence of panel cointegration, we employ the Pedroni residual cointegration test. The null hypothesis posits that there is no presence of cointegration in the panel that exhibits heterogeneity. The cointegration test evaluates variations in intercepts and trend coefficients across various groups and investigates the presence of unit roots in the residuals computed using the Augmented Dickey-Fuller (ADF) test. This test utilises panel-specific weights instead of weights utilising the PP regression method proposed by Pedroni (1999).

$$\text{Modified } PP\ t = TN^{-1/2}\sum_{i=1}^{N}\left(\sum_{t=1}^{T}\hat{e}_{i,t-1}^{2}\right)^{-1}\sum_{t=1}^{T}\left(\hat{e}_{i,t-1}\Delta\hat{e}_{i,t}-\hat{\lambda}_i\right)$$

$$PP\ t = N^{-1/2}\sum_{i=1}^{N}\left(\hat{\sigma}_i^{2}\sum_{t=1}^{T}\hat{e}_{i,t-1}^{2}\right)^{-1/2}\sum_{t=1}^{T}\left(\hat{e}_{i,t-1}\Delta\hat{e}_{i,t}-\hat{\lambda}_i\right)$$

$$\text{ADF}\ t = N^{-1/2}\sum_{i=1}^{N}\left(\sum_{t=1}^{T}\hat{s}_i^{*2}\hat{e}_{i,t-1}^{2}\right)^{-1/2}\sum_{t=1}^{T}\hat{e}_{i,t-1}\Delta\hat{e}_{i,t}$$

For the final step, we employ the Granger causality test on the panel, as recommended. This test is an updated version of the Granger Causality Test (1969) that investigates the lack of causality in heterogeneous panel data models (Beyzatlar, 2014). The test results indicate that panel Granger causality can be obtained in the following manner:

$$y_{i,t} = \alpha_i + \sum_{k=1}^{K}\gamma_i^{(k)}y_{i,t-k} + \sum_{k=1}^{K}\beta_i^{(k)}x_{i,t-k} + \varepsilon_{i,t}$$

The constant is denoted by αi, the lag parameters are represented by γi, and the slope coefficients are indicated by βi. Furthermore, the variables y and x denote the components under investigation for causality. A novel method is suggested for doing causality analysis, in which it is said that all coefficients exhibit variation across distinct data groups. Thus, this approach is appropriate for addressing cross-sectional interdependence. Causality tests can be conducted irrespective of whether the temporal dimension exceeds or is less than the cross-sectional dimension. Dumitrescu and Hurlin (2012) employed Monte Carlo simulations to compute the test statistics and corresponding p-values. The estimate method examines the enduring relationship between variables in the panel and evaluates the direction of causality (Babajide, 2020).

The null hypothesis posits that there is no homogenous Granger causation among the cross-sectional units, but the alternative hypothesis suggests that there is at least one causal relationship in the panel data. In order to guarantee the dependability of our results, we employ two distinct indicators of financial development: (1) the quantity of credit provided by banks to the private sector, and (2) the Financial Development Index (FD Index) generated by the International Monetary Fund. Consistent with the econometric methods employed in the primary study, we do trend analysis to identify patterns in SDG trends that are affected by financial growth (Scheyvens, 2016). Subsequently, a data-driven investigation is conducted exclusively on the chosen Sustainable Development Goals (SDGs).

RESULTS

According to the analysis, the findings are as follows:

Table 1. Descriptive Statistics Variable

Variable	Central	East	South Eastern	Southern	Western	Asia
CTPS	23,01	129,60	82,823	40,55	76,87	73,05
FDI	7,18	9,13	8,73	6,07	6,55	7,33
POP	16,35	18,10	17,16	17,14	15,85	16,77
GDP	4,98	3,67	4,77	5,15	2,62	4,00
LP	34,73	38,09	48,20	43,73	36,68	41,30
CE	103,28	65,67	67,13	81,67	78,18	75,98
%	5,71	11,43	25,71	22,86	34,29	35
No. Of Countries	2	4	9	8	12	35

Source: Data Processed, 2024

Table 1 shows the statistical characteristics of financial development indicators, foreign direct investment (FDI), and control factors. The analysis indicates that the Eastern, Southeastern, and Western regions have financial development above the Asian average, particularly with high levels of FDI. The Southeastern region experiences development with substantial support from ODA and personal remittances. However, the Southern region faces challenges such as high unemployment, child labor, carbon emissions, and slower growth in foreign direct investment.

The following table presents the results of the financial development analysis:

Table 2. Financial Development Analysis

Variable	SDG 5	SDG 8	SDG 9	SDG 11	SDG 13
CTPS	0,019	0,018	0,023	0,009	-0,010
FDI	0,089	-0,158	-0,102	0,054	-0,029
POP	- 0,420	0,151	0,175	0,000	0,010
GDP	0,366	0,213	-0,108	0,207	0,256
LP	0,011	0,000	0,003	0,011	0,011
CE	0,007	-0,016	-0,017	-0,003	0,034
Nilai R Square	28,92%	21,30%	30,15%	12,81%	26,17%
No. Of Countries	43	43	43	43	43

Source: Data Processed, 2024

Table 2 demonstrates that there is a favourable relationship between financial development and the attainment of SDG 5, SDG 8, SDG 9, and SDG 11. However, there is a negative correlation between financial development and SDG 13. The upcoming analysis will concentrate on the Sustainable Development Goals (SDGs) that are impacted by financial development. It will involve the selection of appropriate indicators for each SDG, as shown in Table 3.

The panel cointegration test results decisively reject the null hypothesis that there is no cointegration within the selected panels. This suggests that there is a consistent and enduring association among the variables in these panels. The paired Granger causality test demonstrates that gender equality exerts a direct and substantial influence on the advancement of the financial industry. The results also validate a reciprocal cause-and-effect connection between SDG 9 and the advancement of financial systems, SDG 11 and the advancement of financial systems, and SDG

13 and the advancement of financial systems. The causality test verifies that there is a one-way causal relationship from SDG 5 to financial development, and a two-way causal relationship between SDG 9, SDG 11, SDG 13, and financial development. Nevertheless, the sustainability test does not establish a reciprocal cause-and-effect relationship between SDG 13 and financial progress. These findings are consistent with the observed data recorded in this research.

Table 3. Cointegration Test Results

Variable	Cross-sectional dependence test		Cointegration test	
	CD Test	Philips – Perron	Modified Philips – Perron	Augmented Dickey - Fuller
	Probability	Probability	Probability	Probability
WSP	0,000	0,000	0,023	0,002
GDP	0,000	0,000	0,048	0,000
MVA	0,003	0,000	0,022	0,000
UPG	0,000	0,000	0,000	0,097
CO_2	0,000	0,000	0,003	0,000

Source: Data Processed, 2024

DISCUSSION

The Correlation Between Gender Equality and Economic Advancement

The investigation has confirmed a one-way causal relationship from gender equality to financial development, suggesting that gender equality has a major impact on financial growth (Ari et al., 2017). Concentrating on gender equality intentionally might expedite the process of empowering financially independent women and building an economy that caters to their need. Access to credit, enhanced labour standards, improved working conditions, banking services, and financial aid are essential for the holistic development of nations. These characteristics not only facilitate gender equality and uphold women's rights, but also yield financial advantages through women's engagement in the economy, including tax revenues and investments (Ari et al., 2017). Women, with their expertise and ability to lead, have a crucial impact in mitigating environmental deterioration, ultimately fostering economic advancement. Stuart et al. (2018) emphasise the significance of integrating economic policies into national economic strategies to enhance women's empowerment through gender equality, as a way to advance the sustainable development goal (Fernández-Guadaño, 2023). The incorporation of women in diverse sustainable leadership positions owing to their significant contributions in fostering economic growth and companies, as well as their capacity to advocate and rule impartially and autonomously (Hassan, 2020).

Examine the Interconnection of Industry, Innovation, Infrastructure, and Financial Development

Our investigation has revealed a mutually beneficial relationship between SDG 9 and financial development. Investing in infrastructure and industrial innovation is crucial for promoting economic growth, leading to demonstrable advancements in technology and physical development. These developments are apparent through the rise in production, the creation of more work opportunities, and an increase in earnings. These attributes decrease gaps in income and foster chances for social integration and the enhancement of value. Industrial innovation, marked by the implementation of eco-friendly practices, aids in the reduction of CO2 emissions, therefore fostering sustainable growth. Hence, SDG 9 enables the realisation of other Sustainable Development Goals (SDGs) including SDG 1 (Eradicating Poverty), SDG 5 (Promoting Gender Equality), and SDG 13 (Taking Climate Action). According to Umar et al. (2020), there is a close

connection between industrialization and growth. Industrialization is dependent on technology and innovation, while growth is reliant on industrialization. Adebayo et al. (2021) establish that the objective of SDG 9 is to foster sustainable development by using the beneficial effects of financial development, such as technical progress, to bolster sustainability objectives such as enhanced energy efficiency. This confirms that SDG 9 supports the creation of sophisticated infrastructure that offers the essential resources to accomplish sustainable development objectives.

Examining the Interplay Between Urban Sustainability and Economic Growth

The study establishes that there exists a mutual and interdependent connection between SDG 11 and financial development. The objective of Sustainable Development Goal 11 (SDG 11) is to achieve substantial advancements in diminishing the proportion of urban populations residing in slums, while concurrently building green spaces to foster sustainable cities and communities (Valencia, 2019). Cities play a crucial role in promoting economic and social progress by offering individuals the chance to flourish in circumstances that foster innovation and cater to diverse interests, such as business endeavours and cultural arts activities (Scheyvens, 2016). Developing cities play a crucial role in driving economic growth through the efficient use of resources and the acceleration of the development process. Urbanisation is a population phenomenon that is seen to have a beneficial influence on economic progress. The advancement of financial systems plays a vital role in fostering the progress of smart cities by facilitating technological innovations. Studies have demonstrated that a robust and well-developed financial system in an economy plays a crucial role in attaining renewable energy objectives and encourages additional investment in cleaner and more advanced energy projects (Becker, 2015).

Tackling Climate Change and Advancing Economic Growth

Our investigation has revealed a mutual association between SDG 13 (Sustainable Development Goal 13) and financial development. Climate change is impacting every country globally. The escalating climate problems result in notable disruptions and considerable consequences for society, mostly attributable to shifting weather patterns, escalating sea levels, and other catastrophic events (Akpoti, 2019). Given the escalating climate crisis, the imperative to transition towards stability becomes progressively crucial. The dependence of developing countries on labor-intensive industrial processes also leads to adverse externalities. Hence, the incorporation of environmental conservation and economic advancement is usually acknowledged as a vital component to guarantee the enduring viability of the worldwide economy (Bierbaum, 2013). Prior research has recognised that economic expansion has the ability to impact the patterns of carbon emissions, as well as other macroeconomic factors that are known to influence carbon emissions (Abbasi, 2020). Financial development also fosters prospects for utilising innovative and effective energy sources. There exists a mutually advantageous correlation between the progress of financial systems and the utilisation of renewable energy sources. A study revealed that the progress of the financial sector is crucial in enabling the shift from fossil fuels to contemporary renewable energy sources, including wind energy.

CONCLUSION

This study investigates the influence of financial development on the attainment of the Sustainable Development Goals (SDGs). The analysis demonstrates that financial advancement has a beneficial influence on the trajectories of SDGs pertaining to gender equality, economic growth, infrastructure, and sustainable cities. Nevertheless, it exerts a detrimental influence on efforts to address climate change. Granger causality studies indicate a reciprocal causal connection between financial development and SDG 9, SDG 11, and SDG 13, as well as a one-way causal relationship from SDG 5 to financial development. This study emphasises the significance of enhancing the presence of women in the labour market to promote economic advancement. Financial

development also contributes to the acceleration of sustainable city development by promoting the adoption of energy-efficient practices.

The report highlights key areas that need to be addressed, including the prevention of unsustainable practices, the reform of institutions, the creation of job possibilities, the adoption of renewable energy sources, and the advancement of technology. Establishing a strong and resilient financial system is seen essential in the pursuit of the Sustainable Development Goals (SDGs). Policy recommendations encompass the formulation of adaptable government regulations, the monitoring of foundational barriers, the provision of financial incentives to bolster sustainable enterprises, and the rejection of revenues originating from polluting sectors. This study is constrained by limitations in terms of the size of the sample and the availability of data. Future research endeavours can improve our understanding of how the private sector might be integrated with the Sustainable Development Goals (SDGs).

LIMITATION

The study is limited by the size of the sample used in the analysis. A larger sample size could potentially provide more robust and generalizable results The study is constrained by the availability of data. This suggests that there may be gaps in the data or that certain variables of interest could not be included due to a lack of available data. The text mentions that future research could improve our understanding of how the private sector might be integrated with the Sustainable Development Goals (SDGs). This implies that the current study does not fully address the role of the private sector in attaining the SDGs, which could be considered a limitation.

REFERENCES

Abbasi, M. A. (2020). Urbanization and energy consumption effects on carbon dioxide emissions: Evidence from Asian-8 countries using panel data analysis. Environmental Science and Pollution Research, 27(15), 18029–18043. https://doi.org/10.1007/s11356-020-08262-w

Abidin, I. S. Z. (2015). Foreign direct investment, financial development, international trade and energy consumption: Panel data evidence from selected ASEAN countries. International Journal of Energy Economics and Policy, 5(3), 841–850.

Abou-Shouk, M. A. (2021). Women's empowerment and tourism development: A cross-country study. Tourism Management Perspectives, 37(Query date: 2023-10-09 22:20:44). https://doi.org/10.1016/j.tmp.2020.100782

Acheampong, A. O. (2019). Modelling for insight: Does financial development improve environmental quality? Energy Economics, 83(Query date: 2023-12-07 09:07:45), 156–179. https://doi.org/10.1016/j.eneco.2019.06.025

Adeola, O. (2020). Empowering African women for sustainable development: Toward achieving the United Nations' 2030 goals. In Empowering African Women for Sustainable Development: Toward Achieving the United Nations' 2030 Goals (p. 175). https://doi.org/10.1007/978-3-030-59102-1

Akadiri, S. S. (2020). Examining the causal impacts of tourism, globalization, economic growth and carbon emissions in tourism island territories: Bootstrap panel Granger causality analysis. Current Issues in Tourism, 23(4), 470–484. https://doi.org/10.1080/13683500.2018.1539067

Akpoti, K. (2019). Agricultural land suitability analysis: State-of-the-art and outlooks for integration of climate change analysis. Agricultural Systems, 173(Query date: 2023-12-07 09:04:46), 172–208. https://doi.org/10.1016/j.agsy.2019.02.013

Alagpuria, M. (2021). SUSTAINABLE FINANCING FOR THE ENTREPRENEURSHIP CONTINUAL GROWTH: A GAP ANALYSIS AMONG SMALL AND MEDIUM ENTERPRISES IN INDIA. Virtual Economics, 4(2), 104–119. https://doi.org/10.34021/ve.2021.04.02(6)

Albareda-Tiana, S. (2018). Implementing the sustainable development goals at University level. International Journal of Sustainability in Higher Education, 19(3), 473–497. https://doi.org/10.1108/IJSHE-05-2017-0069

Allen, C. (2016). National pathways to the Sustainable Development Goals (SDGs): A comparative review of scenario modelling tools. Environmental Science and Policy, 66(Query date: 2023-12-07 09:04:46), 199–207. https://doi.org/10.1016/j.envsci.2016.09.008

Allen, C. (2018). Initial progress in implementing the Sustainable Development Goals (SDGs): A review of evidence from countries. Sustainability Science, 13(5), 1453–1467. https://doi.org/10.1007/s11625-018-0572-3

Alola, A. A. (2019). The role of renewable energy, immigration and real income in environmental sustainability target. Evidence from Europe largest states. Science of the Total Environment, 674(Query date: 2023-12-07 09:31:14), 307–315. https://doi.org/10.1016/j.scitotenv.2019.04.163

Altinay, L., & Taheri, B. (2019). Emerging themes and theories in the sharing economy: A critical note for hospitality and tourism. In International Journal of Contemporary Hospitality Management (Vol. 31, Issue 1). https://doi.org/10.1108/IJCHM-02-2018-0171

Apostolopoulos, N., Al-Dajani, H., Holt, D., Jones, P., & Newbery, R. (2018). Entrepreneurship and the Sustainable Development Goals. In N. Apostolopoulos, H. Al-Dajani, D. Holt, P. Jones, & R. Newbery (Eds.), Contemporary Issues in Entrepreneurship Research (Vol. 8, pp. 1–7). Emerald Publishing Limited. https://doi.org/10.1108/S2040-724620180000008005

Arcand, J. L. (2015). Too much finance? Journal of Economic Growth, 20(2), 105–148. https://doi.org/10.1007/s10887-015-9115-2

Ari, K. B. J., Wahyuni, M. A., & … (2017). Pengaruh Faktor Gender, Pertimbangan Pasar Kerja, Lingkungan Kerja, Penghargaan Finansial dan Pelatihan Profesional Terhadap Minat Mahasiswa dalam JIMAT (Jurnal Ilmiah ….https://ejournal.undiksha.ac.id/index.php/S1ak/article/view/13589

Armeanu, D. S. (2021). Understanding the multidimensional linkages among renewable energy, pollution, economic growth and urbanization in contemporary economies: Quantitative assessments across different income countries' groups. Renewable and Sustainable Energy Reviews, 142(Query date: 2023-12-07 09:31:14). https://doi.org/10.1016/j.rser.2021.110818

Ayyagari, M. (2010). Formal versus informal finance: Evidence from China. Review of Financial Studies, 23(8), 3048–3097. https://doi.org/10.1093/rfs/hhq030

Babajide, A. (2020). Financial stability and entrepreneurship development in sub-Sahara Africa: Implications for sustainable development goals. Cogent Social Sciences, 6(1). https://doi.org/10.1080/23311886.2020.1798330

Bebbington, J. (2018). Achieving the United Nations Sustainable Development Goals: An enabling role for accounting research. Accounting, Auditing and Accountability Journal, 31(1), 2–24. https://doi.org/10.1108/AAAJ-05-2017-2929

Becker, B. (2015). Public R&D Policies and Private R&D Investment: A Survey of the Empirical Evidence. Journal of Economic Surveys, 29(5), 917–942. https://doi.org/10.1111/joes.12074

Beyzatlar, M. A. (2014). Granger-causality between transportation and GDP: A panel data approach. Transportation Research Part A: Policy and Practice, 63(Query date: 2023-12-07 09:31:14), 43–55. https://doi.org/10.1016/j.tra.2014.03.001

Bierbaum, R. (2013). A comprehensive review of climate adaptation in the United States: More than before, but less than needed. Mitigation and Adaptation Strategies for Global Change, 18(3), 361–406. https://doi.org/10.1007/s11027-012-9423-1

Buera, F. J. (2011). Finance and development: A tale of two sectors. American Economic Review, 101(5), 1964–2002. https://doi.org/10.1257/aer.101.5.1964

David-West, O. (2018). Sdgs and digital financial services (Dfs) entrepreneurship: Challenges and opportunities in africa's largest economy. Contemporary Issues in Entrepreneurship

Research, 8(Query date: 2023-10-09 22:20:44), 103–117. https://doi.org/10.1108/S2040-724620180000008011

FAN, W., WU, X., SHI, X. Y., ZHANG, C., Wai Hung, I., Kai Leung, Y., & ZENG, L. S. (2023). Support vector regression model for flight demand forecasting. In International Journal of Engineering Business Management (Vol. 15). https://doi.org/10.1177/18479790231174318

Fernández-Guadaño, J. (2023). Gender differences in Social Entrepreneurship: Evidence from Spain. Women's Studies International Forum, 96(Query date: 2023-10-09 22:20:44). https://doi.org/10.1016/j.wsif.2022.102663

Hassan, M. ul. (2020). Education for women entrepreneurial attitudes and intentions: The role of perceptions on gender equality and empowerment. Pakistan Journal of Commerce and Social Science, 14(1), 63–98.

Jamel, L. (2017). The nexus between economic growth, financial development, trade openness, and CO2 emissions in European countries. Cogent Economics and Finance, 5(1). https://doi.org/10.1080/23322039.2017.1341456

Khan, H. U. Z. (2010). The effect of corporate governance elements on corporate social responsibility (CSR); reporting: Empirical evidence from private commercial banks of Bangladesh. International Journal of Law and Management, 52(2), 82–109. https://doi.org/10.1108/17542431011029406

Rosyada, D. (2018). Promoting islamic values to encourage labour performance and productivity: Evidence from some Indonesian industries. International Journal of Business and Society, 19(Query date: 2023-10-28 12:20:00), 591–604

Samsudin, A., Nirawati, L., Maslihatul, S., & … (2023). Pertumbuhan dan Perkembangan Gravitasi Dalam Keuangan Internasional dan Resiko Kredit Negara G20. El-Mal: Jurnal …, Query date: 2023-12-07 09:00:07. https://journal.laaroiba.ac.id/index.php/elmal/article/view/2979

Sari, N. P. R., Bendesa, I. K. G., & Antara, M. (2019). The Influence of Quality of Work Life on Employees' Performance with Job Satisfaction and Work Motivation as Intervening Variables in Star-Rated Hotels in Ubud Tourism Area of Bali. In Journal of Tourism and Hospitality Management (Vol. 7, Issue 1). https://doi.org/10.15640/jthm.v7n1a8

Scheyvens, R. (2016). The Private Sector and the SDGs: The Need to Move Beyond 'Business as Usual.' Sustainable Development, 24(6), 371–382. https://doi.org/10.1002/sd.1623

Valencia, S. C. (2019). Adapting the Sustainable Development Goals and the New Urban Agenda to the city level: Initial reflections from a comparative research project. International Journal of Urban Sustainable Development, 11(1), 4–23