

Analyzing Potential of Sustainable Development Goals (SDG) in Reducing Economic Inequalities

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Available online at: www.isroset.org

Received: 15/Oct/2022, Accepted: 07/Nov/2022, Online: 30/Nov/2022

Abstract - In today's era of industry 4.0, business and national development is growing with no bounds. The developed countries are more developing, and their frugality covers utmost of the part of whole world. Their demand of some targets and goals to make the world to meet today's need without affecting the ability of future centuries to meet their needs. However, the conception of sustainable growth moves beyond the terrain. The appeal of the objectives (SDG) is that everybody can participate, and every contribution—no matter how modest or significant—will have an effect on the globe. The Paris Agreement alone has created commercial potential worth US\$ 23 trillion for developing markets for climate-smart investments.

This study's goal is to recognise the potential of Sustainable Development Goals in reducing inequality. The Data from previous 22 years (year 2000 to financial year 2022) of 163 countries across the world has been collected through department of economic and social affairs, United Nations. Panel data analysis has been used to test the result. It is found that sustainable development goals have significant negatively influenced the income group. The high the SDG score, the low the income inequality. SDG has potential to reduce the income inequality. fixed effect model is found the best suitable model out of three model i.e., pooled model, random model and fixed effect model. It has highest explanation capacity in comparison to other two models. It is explaining 71.42 percentage of the variance in the data. The studies demonstrate that the study of economic inequality has much to offer the SDG-based global policy discourse.

Keywords- Sustainable Development Goals (SDGs), Income, inequality, panel data, random effect model

I. INTRODUCTION

CSR is an ill-defined concept that falls short of striking the right balance between social needs and business economic goals (Nurunnabi et al., 2020).¹ The Sustainable Development Goals (SDGs) were developed at the 2012 United Nations Conference on Sustainable Development in Rio de Janeiro in 2012. In attempt to solve the critical political, economic, and environmental issues our world is currently facing, it was proposed to develop a set of global goals, in contrast to their predecessor, the Millennium Development Goals. The Sustainable Development Goals (SDGs) specifically encourage all businesses to apply their creativity and ingenuity to address issues related to sustainable development.

The Sustainable Development Goals (SDGs) have taken the role of the Millennium Development Goals (MDGs), which were the focus of a global campaign that began in 2000. (SDGs). Nations around the world have already endorsed an ambitious 2030 agenda for sustainable development.

Prosperity, the environment, and people are the agenda's main objectives. It also seeks to advance further

independence and international peace. ⁱⁱWe agree that eradicating extreme poverty and all other forms of poverty is the biggest issue facing the world today and an essential part of sustainable development. All participating nations and parties will cooperate to put this strategy into operation. We are committed to freeing people from the slavery of poverty and desire while also repairing and securing our planet.

We are dedicated to implementing the significant reforms that must happen now to steer the world toward a sustainable and resilient path.

Lessening inequality and ensuring that no one is left behind are essential for achieving the Sustainable Development Goals. Unevenness both inside and across countries is a constant cause for concern.

The effects of the COVID-19 epidemic appear to be reversing any positive trends toward lowering wealth disparity. Prejudice that is structural and systemic has gotten worse as a result of the epidemic. The income gap between countries is widening as a result of the slow economic recovery in emerging markets and developing

countries. The total number of fatalities among migrants and refugees worldwide hit a record high in 2021.

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The continued crisis in Ukraine is forcing even more people from their homes, contributing to one of the biggest refugee crises in recent memory.

SDG 10 is concerned with decreasing inequality within and between countries. By 2030, the bottom 40% of the population should experience and maintain income growth that is faster than that of the nation as a whole. Additionally, it encourages the involvement of all individuals in politics, society, and the economy, regardless of their age, gender, handicap, race, ethnicity, and place of origin, religion, or economic status. The continued turmoil in Ukraine is forcing even more people to flee their homes, contributing to one of the biggest refugee crises in recent memory. It fosters equality of opportunity and lessens resulting inequities by eliminating discriminatory laws, rules, and practises and encourages appropriate legislation, policies, and action in this area.

II. REVIEW OF LITERATURE

A review of several literatures revealed an emphasis on CSR, sustainability, MDG, and SDG issues and challenges. Some articles are concerned with the disclosure and reporting of SDGs, while others are concerned with determining the factors that influence them.

Economic disparity has reached previously unheard-of heights in recent years, impeding efforts to reduce poverty, stoking political unrest, and posing fresh dangers to the full range of human rights. Considering this, the adoption of the 2030 Agenda for Sustainable Development, in which states made a commitment to reducing inequality within and between countries (Goal 10), has the potential to inspire action to reverse this economic magnetization and bring about the urgently needed paradigm shift in how development efforts are pursued. (Lusiani and Kahler, 2016). The Center for Economic and Social Rightsⁱⁱⁱ

This essay examines aspects of inequality that are addressed in the Sustainable Development Goals using economic viewpoints and methodologies. The analyses show how the SDGs' foundational global policy framework may be significantly influenced by research on economic inequality. (Kanbur 2021).^{iv}

The development of feminist theory, research, and measurement is examined in this article. It also explores whether the Sustainable Development Goals (SDGs), with their emphasis on gender mainstreaming, could provide the framework for measurement that the Beijing Platform for Action (BPfA) lacked (Azcona and Bhatt 2020)^v

The relationship between modern social protection policies and inequality in emerging nations is examined, with an emphasis on the political economy's driving forces and the

actors' and institutions' roles in the processes of recent reform and implementation. By giving context, concepts, and questions, this introduction essay creates some common ground. According to the Sustainable Development Goals, reducing inequality is a crucial prerequisite for achieving inclusive and sustainable development goals governments committed to in 2015.(Hujo 2021)^{vi}

Emerging nations, reducing income inequality and improving access to financial institutions are essential for achieving Sustainable Development Goal 10. The findings demonstrated that decreasing income inequality is achieved through raising real income and government spending. Inflation has been proven to have a short-term favourable effect on income disparity, with a long-term negative impact. In the case of finance, an inverted U-shaped relationship between income inequality and both overall financial development and banking sector development has been shown (Destek, Sinha, and Sarkodie 2020)^{vii}

The UN's ambitious Sustainable Development Goals (SDGs) have drawn criticism for being unclear, challenging to quantify, implement, and monitor. A depressing analysis suggests that the SDGs may contain contradictions, particularly between the aims for socioeconomic development and environmental sustainability (Swain 2018).^{viii}

The purpose of this paper is to look into large firms' adoption of the Sustainable Development Goals (SDGs) in low- and middle-income countries in Asia and Africa, as well as the company characteristics that influence their decision to adopt new sustainability reporting methods. The findings also reveal that certain corporate, organisational, and performance characteristics boost the chance of corporations adopting SDG reporting. This paper contributes to the academic and practical knowledge of variables impacting the adoption of SDG reporting by multinational firms in Asia and Africa's low- and middle-income countries, drawing on agency theory and legitimacy theory perspectives. (Kazemikhasragh, Cicchiello, and Pietronudo 2021).^{ix}

This study's objective is to evaluate the Indian business community's contribution to long-term growth. Statistics have been used to evaluate the effects of factors including business size, ownership structure, and environmental sensitivity for these companies. The results show that there is a considerable gap between the potential of Indian corporate sustainability investments and their current state, indicating that there is substantial possibility for growth. The paper emphasises the consequences for the regulatory framework that must alter if the private sector's input is necessary for the SDGs.(Jha and Rangarajan 2020)^x

CSR is one of the methods utilised to accomplish the objectives of sustainable development (SDGs). The purpose of this study is to determine whether Indonesian

companies' CSR initiatives support and align with the SDGs, especially in terms of achieving the objective of responsible consumption and production. The findings should encourage businesses to engage in business operations, particularly CSR initiatives that address SDG priority development goals. (Gunawan, Permatasari, and Tilt 2020)^{xi}

Based on the research gap the following hypothesis has been framed

H₀₁: There is no significant impact of Sustainable Development Goals on economic equality

III. RESEARCH METHODOLOGY

For this study, the following research approach was used:

3.1 Sample size

The nature of research is empirical in nature. Research work is based on secondary data. Last 22 years Data from the year 2000 to financial year 2021 of 163 countries across the world has been collected through department of economic and social affairs, United Nations.

3.2 Measures of variables

The table shows the dependent and independent variables. SDG Index Score is taken as Dependent Variables; economy (income) has been taken as independent variables for the study purpose.^{xii}

Table 1: List of Variables used for factors affecting Sustainability Development Goals (SDG)

Dependent Variables	Independent Variables
Economic inequality (income category)	SDG Index Score

Table 1 below presents the dependent and independent variables examined in this study for analysing the impact of SDG index score on economic inequality.

3.3 Research Objectives

The study was designed to achieve the following goals:

- To find out the potential of Sustainable Development Goals (SDG) in Reducing Economic Inequalities
- To find the impact of Sustainable Development Goals in Reducing Economic Inequalities or income inequalities

3.4 Statistical tools:

Descriptive statistics is used for basic analysis. Panel data analysis has been used to prove the hypothesis. Ordinary regression model, random model and fixed model have been applied to find the fitness of the model.

IV. RESULTS AND DISCUSSION

Following equation has been framed to explore the impact of ESG Disclosure on Firm Performance:

$$SDG_{it} = \beta_1 + \beta_2 (Income) + E_{it}$$

i - denotes the cross-sectional dimension and t represents the time-series dimension, SDG it - represents the model's dependent variable, β_1 - is the constant, β_2 represents the coefficients.

H₀₁: There is no significant impact of Sustainable Development Goals in Reducing Economic Inequalities or income inequalities

Pooled OLS and Random Effect Model

According to Baltagi, the decision of whether to estimate outcomes using a panel regression or a simple regression should come first in any empirical investigation (2008). For this reason, one should carry out a specific test that facilitates such a decision. Early E Views results demonstrated that the OLS estimator was insufficient and inconsistent, leading to the rejection of the null hypothesis that the individual effects were null. The panel data regression model frequently resembles the following shape. Table 2 displays the estimates for the pooled regression, the fixed effect model, and the random effect model.

Estimation Command:

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LS SDG_INDEX_SCORE C INCOME_GROUP
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Estimation Equation:

$$SDG_INDEX_SCORE = C(1) + C(2)*INCOME_GROUP$$

Substituted Coefficients:

$$SDG_INDEX_SCORE = 82.8186702329 - 8.28392058694*INCOME_GROUP$$

Table 2 Results of Panel Data Regression

Variables	SDG Score					
	Pooled		Random		Fixed	
	coefficient	p-value	coefficient	p-value	coefficient	p-value
C	82.81867	0	82.8187	0	82.8187	0
Income	-8.283921	0	-8.2839	0	-8.2839	0
Adj R ²	0.676219		0.099546		0.713942	
F	7488.201		.397.3236		407.7004	
F Sig.	0		0			
D-W	0.00811		0.1534		0.0058	
BPLM	0		N/A		N/A	
Hausman	N/A		0		N/A	

The estimation of Equation's outcomes has been shown in the above table. The pooled regression model was found not significant, also and results were tested through Breusch-Pagan L-M Test. Significant test values led to estimation of random effect model. The next step in choosing between the fixed effect model and the random effect model consisted of running the Hausman test. Significant test value led to estimation of Fixed Effect Model. Fixed effect has the highest adjusted R² value (0.71392) means it has ability to explain 71.39% variability in the data.

V. CONCLUSION

Making policies, missions, or goals to further human, planetary, and economic development is essential in the modern period. It should be obvious that economic research on inequality is ideally suited to address the issues raised by the SDGs. Besides SDG-10, which is specifically about inequality, other SDGs are closely related to inequality in general and income distribution in particular. Even when SDG concerns transcend beyond broadly defined income inequality or income poverty, such as to inequities in health and education or across wide categories defined by income, there are interesting parts of the study of economic inequality that connect with these issues.

The methods and viewpoints used in economic research, which emphasise rigorous statistical analysis and well-defined intellectual foundations, can be useful in identifying and evaluating the various policy interventions that could be used to achieve the SDGs, as well as in quantifying some of their targets.

The United Nations created the Sustainable Development Goals (SDGs) to fulfil this need. It is presumable that businesses will use the most recent social transparency and sustainability innovations. The impact of sustainable development goals is most clearly influenced by the dependent variable income category, according to panel data. There are four subcategories within the income category: lower class, lower middle class, upper middle class, and higher class. The SDG income score is influenced by one's income.

The use of Fixed Effect Model is seen to be the most important. Fixed effect has the greatest adjusted R² score (0.71392), which indicates that it can account for 71.39% of the data's variability.

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Dr Asha Sharma is a distinguished educator with broad experiences of 22 years. Her areas of specializations are Accounting and Finance. She is registered PhD Guide of

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