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INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/16535

DOI URL: <http://dx.doi.org/10.21474/IJAR01/16535>



RESEARCH ARTICLE

A REVIEW OF CORRELATION AMONG THE ECONOMIC GROWTH, ECONOMIC UNCERTAINTY AND SUSTAINABLE DEVELOPMENT IN INDIA

Pawan Kumar Gupta

Assistant Professor, Department of Economics, BSNV PG College, Lucknow.

Manuscript Info

Manuscript History

Received: 28 January 2023

Final Accepted: 28 February 2023

Published: March 2023

Key words:-

Economic Uncertainty, Sustainable Development, GDP, Economic Growth

Abstract

Sustainability of the natural resources is based on human efforts and the economic development is the base of the sustainable development of any country. But an economy's development would increase when its economic uncertainty is at a low level. There are two objectives of the present research paper; the first is to find the correlation among sustainable development, economic growth and economic uncertainty in India and the second is to access the impact of economic growth and economic uncertainty on the sustainable development of India. The present research is taking the period of 2000-2022 to access the correlation and impact of economic growth and economic uncertainty on sustainable development. The explorative, descriptive and correlation-regression methods are used to analyse the all shreds of evidence. The research statements are rejected with strong statistical evidences and both the objectives of the present research paper are achieved. As the economic uncertainty is reduced due to strong economic policies, the economic development takes place and makes the easy sustainable development path in India.

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Introduction:-

According to the sustainable development committee of the United Kingdom, "Sustainable development is the development that meets the needs of the present, without compromising the ability of future generations to meet their own needs."

Sustainable development is a buzzword we hear from time to time to outline our ideal vision of a future free from all the problems faced by the inhabitants of the earth. Scarcity of natural resources, gender inequality, and unequal distribution of wealth is just a few, but they clearly show the problems we are trying to eliminate. However, because of the ubiquitous nature of the term sustainable development and the seriousness of the situation being resolved, many regard it as an abstract, unattainable concept that typically conjures up shocking images of highly polluted oceans. Nonetheless, a deeper understanding of this area and its challenges in our current environment is essential and can help lead a more conscious and altruistic life.

An increase in economic activity will inevitably produce environmental degradation, which in turn can lead to potential economic and ecological collapse. This conflict, which inevitably affects the existing social and economic organization, reflects a lack of strong empirical evidence on the impact of rising income levels on environmental quality. At this point, human needs demanded a new concept capable of linking economic development and

Corresponding Author:- Pawan Kumar Gupta

Address:- Assistant Professor, Department of Economics, BSNV PG College, Lucknow.

environmental issues; therefore, the concept of sustainable development largely reflects the coexistence of environmental quality, economic development and social well-being.

Review Literature:-

Undoubtedly, energy is indispensable for achieving economic development (Xu, Si, et al., 2022). Handley and Limau (2015) argue that the effect of the EPU on economic growth is more influential than that of monetary or fiscal policy. Emerging industrialized countries face the fundamental reality of an increasingly uncertain and volatile economic policy environment (Gu, Ke, et al., 2021). Expected investment decisions and economic growth in developing countries are largely affected by the uncertainty of consumption/investment plans (Bloom, 2009; Pastor and Veronesi, 2012). Ahsan, T., et al., (2021) in their study found that EPU negatively affects SG, while concentrated ownership, board independence and board gender diversity (BGD) contribute positively to the SG of Chinese companies. Their findings also suggest that concentrated ownership and BGD mitigate the negative effect of EPU on SG of Chinese firms. Ahsan, T., et. al., (2022) in their research stated that a defensive trading strategy positively mitigates the negative impact of political uncertainty, while an analytical trading strategy mitigates the negative impact of political uncertainty on sustainable financial growth. The results of the study provide a guide for companies to design strategies to effectively deal with political uncertainties. Li, X, Hu, Z, & Zhang, Q (2021) in their research found that environmental regulation is positively correlated with green innovation, while economic policy uncertainty hurts green innovation, leading to environmental. The relationship between the remaining two factors is regulated. Furthermore, considerable regional heterogeneity exists in these causal effects. Uncertainty actively moderates the impact of environmental regulation on green innovation across sectors. However, it inhibits green innovation to varying degrees, particularly in the eastern and central regions. Based on empirical results, they concluded that strict and appropriate environmental regulations are necessary and effective to encourage green technology innovation in China, especially in regions with uncertain economic policies.

Objective:-

The objectives of the present research paper are:

1. To find the correlation between sustainable development, economic growth and economic uncertainty in India.
2. To access the impact of economic growth and economic uncertainty on the sustainable development of India.

Methodology:-

The present research is taking the period of 2000-2022 to access the correlation and impact of economic growth and economic uncertainty on sustainable development. The explorative, descriptive and correlation-regression methods are used to analyse the evidence.

The SDR score is used as an indicator of sustainable development in India. The GDP is taken as the indicator of Economic development indicator. The economic uncertainty in India is taken from the world uncertainty index.

The figures are presented with the deflator value of all variables for representing interaction among the variables.

The average of 12 months' economic uncertainty index value is taken as annual uncertainty for all years from 2000 to 2022.

The regression model is

$$\text{SDR score} = \alpha + \beta_1 \text{ GDP} + \beta_2 \text{ Economic Uncertainty} + \mu$$

Where;

α is the intercept value of autonomous sustainable development in India

β is the multiplier for independent variables; GDP and economic uncertainty in India

μ is the white noise in statistical analysis

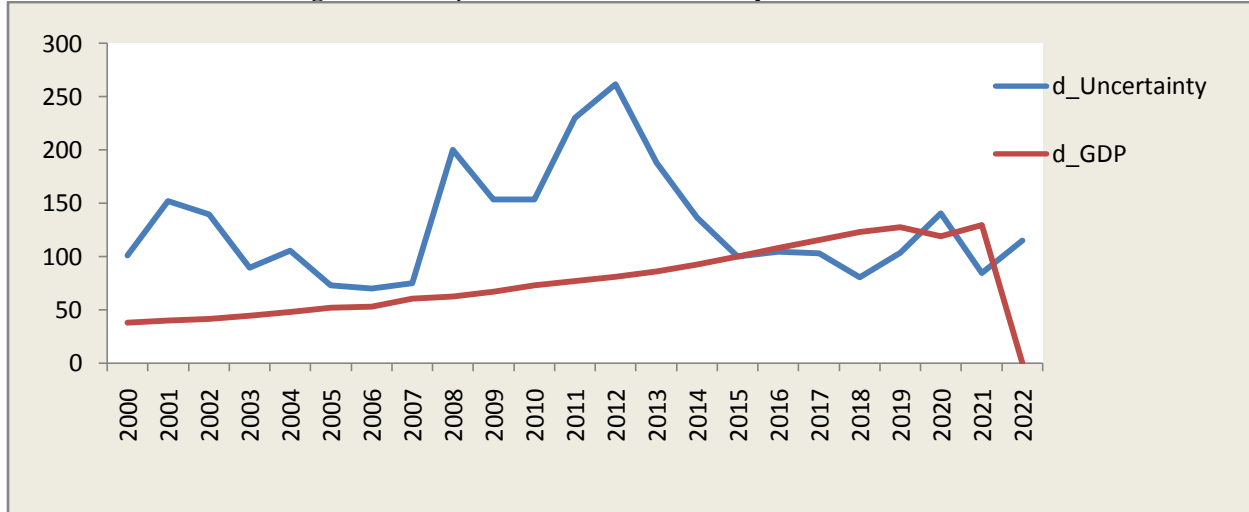
The Research Statements are:

1. The economic growth of India and economic uncertainty are not significantly correlated with SDR.
2. There is no significant impact of economic growth and economic uncertainty on SDR in India during the study period.

Analysis and Result:-

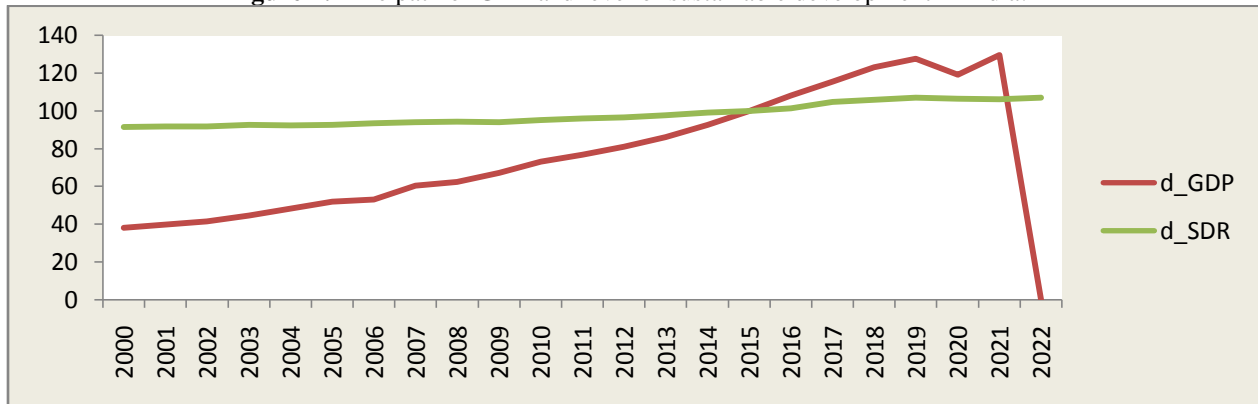
The SDR score is a way to show the level of sustainable development in India. GDP is in billion USD and uncertainty is in index value, to represent the correlation on the figure chart, the deflators of these variables are used. The deflator presents the growth of the variable with time in stationary terms.

Figure 1:- The path of economic uncertainty and GDP in India.



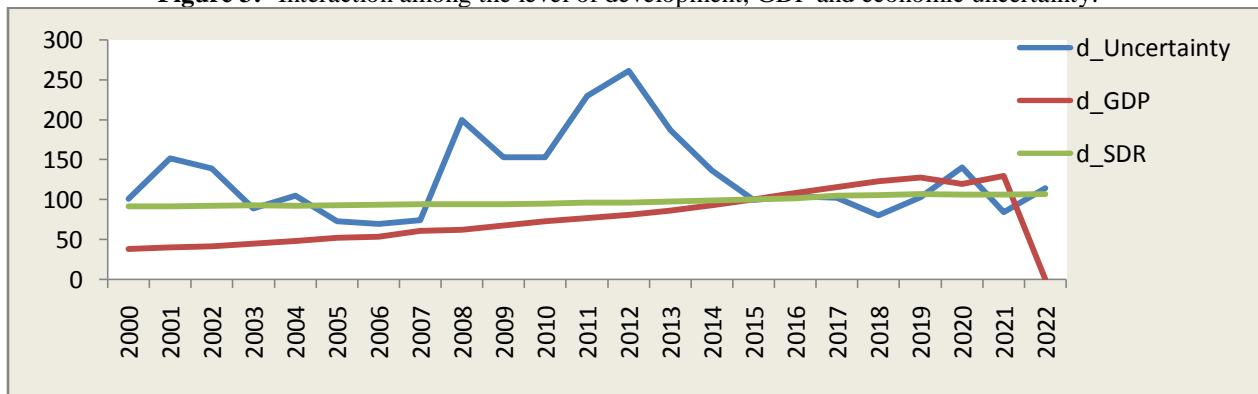
Source: World Bank Data and Economic Uncertainty Index

Figure 2:- The path of GDP and level of sustainable development in India.



Source: World Bank Data and World SDR Report.

Figure 3:- Interaction among the level of development, GDP and economic uncertainty.



Source: World Bank Data, World SDR Report and Economic Uncertainty Index.

SDR score = 84.972 + 0.173 GDP – 0.009 Economic Uncertainty

In the table-2, the rate of growth of SDR is regressed on the rate of growth of economic uncertainty and also the GDP of India. The model is statistically significant at a 1 per cent level of significance. The independent variables; GDP and economic uncertainty are also statistically significant at 1 per cent of the level of significance. A maximum 3 lag value is taken to capture the problem of autocorrelation of the time series variables. During 2000-2023, as the economic uncertainty decreases 1 percent of its negative growth the SDR increases by 0.009 percent annually. As the GDP rises with 1 per cent of growth, the SDR increase with 0.173 per cent of its growth. Other variables affecting the SDR are not taken in the model for analysis for the concentration on the objectives of the present paper.

Conclusion:-

Both research statements are rejected with strong statistical evidence and both the objectives of the present research paper are achieved. Economic growth of India and economic uncertainty, both are significantly correlated with SDR and there is a statistically significant impact of economic growth and economic uncertainty on SDR in India during the study period. As the economic uncertainty is reduced due to strong economic policies economic development takes the place and makes the sustainable development path in India. A strong economy can optimize the use of natural resources and also can achieve the sustainable development goal in time. India is working for the same and will secure the natural resources for the future as SDG 2015 is set.

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