A STUDY ON SUSTAINABILITY DEVELOPMENT GOAL INDICATORS FOLLOWED BY NIFTY-FIFTY LISTED COMPANIES IN NSE

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ABSTRACT

The purpose of this study is to determine the relationship between the SDGs and companies. The Objective of this study to find the relationship between the SDGs and Companies, Sustainability Reporting and Verification of Adherence to GRI Indicators. This study relies on secondary data (Annual Reports, Sustainability Reports, NVG Principles). The study includes Nifty Fifty Companies. The research focuses on the theoretical framework of the SDGs, the GRI Indicators, and NVG Principles of these firms. Further, Scoring Methodology was utilized to collect data for the investigation. Then comes Descriptive Analysis of 17 SDGs, Reporting Practices, and EES Distribution. Chi-Square tests was used as statistical tests. The hypothesis was validated using the Chi-Square test, which revealed that there is relationship between the Economic and Environmental Components and their reporting. However, Social Component proved that there is no association between Social Component and its reporting.

KEYWORDS: *Sustainable Development Goals, Global Reporting Index, NVG Principles, NSE Listed, Scoring Methodology.*

INTRODUCTION
The Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including poverty, inequality, climate change, environmental degradation, peace and justice. The United Nations provided 17 goals to help maintain corporate social responsibility across the globe; several countries have tried to follow them. In this study, Nifty Fifty listed companies investigated, if they were following the UN SDGs, GRI Indicators and NVG Principles or not. The GRI framework aims to enable third parties to assess environmental impact from the activities of the company and its supply chain. The standardized reporting guidelines concerning the environment are contained within the GRI Indicator Protocol Set. The performance indicators (PI) include criteria on energy, biodiversity and emissions. Sustainability reporting aims to standardize and quantify the environmental, social and governance costs and benefits derived from the activities of the reporting companies accordingly. Some of the examples of the reporting measures to be used would be the quantified results of the CO2 emissions, working and payment conditions, financial transparency and alike. The SDGs address our world's most pressing sustainability challenges; therefore, it is crucial that the contribution of the private sector is both recognized and understood. That is why GRI continues to work with partners and reporting organizations to drive forward the transparency required to support the fulfilment of the SDGs."

RESEARCH METHODOLOGY
Objectives of the Study:
 ➤ To study Sustainability Development Goals of various Companies listed in NSE.
 ➤ To find the relationship between the SDGs and Companies Sustainability Reporting.

Research Design: Descriptive Research Design
Data Collection Method: Secondary Data with Scoring Methodology
Sampling Frame: Annual Report, Sustainability Report and Business Responsibility Report (BRR) NSE website and Company's website.

LITERATURE REVIEW
(Garg, 2017) This study has developed an indicator of sustainability reporting practices that takes into account economic and environmental aspects as well as social factors, in the business context in India. They built declarative index taking into account the environment or social factors. The first part of the study focuses on theory framework followed by sustainability challenges

facing businesses in India. In addition, research detail the methodology used to develop SRI, related to the identification of indicators, select the final indicator, develop hierarchical frameworks, factor analysis, and data pre-processing.

(Ching, Gerab, & Toste, 2014) The objective of this study was to verify compliance with the GRI indicators used by Brazilian companies listed in ISE and those listed in FTSE4Good in their sustainability report 2011 and the difference. The target population includes 70 companies, 35 from ISE and FTSE4Good. Content analysis was used to analyse the indicators disclosed in the reports and the information presented was classified into three rating categories according to their level of disclosure. Overall, our statistical results show that ISE companies are more compliant with the GRI indexes than 4,444 FTSE4Good companies, mainly in terms of economic and social aspects. However, companies pay equal attention in all 3 aspects regardless of economic sector and index.

(Ali, Hussain, 2020), did research on "The Implementation of Sustainable Development Goals in "BRICS" Countries". This study examines the adoption and implementation Sustainable Development Goals (UN SDGs) in Brazil, Russia, India, China and South Africa (BRICS). Using content analysis method, this study shows that that although companies in the BRICS countries have tried to adopt the SDGs identified by the United Nations, it is important missing targets. This study is unique in that it provides an analytical method.

(Waal, Thijssens, 2020) The Sustainable Development Goals (SDGs) emphasize the need to active participation of private companies, based on their creativity and innovate to create value for the common good, such as reducing hunger eradication, poverty alleviation and biodiversity protection. While currently some, especially recently established private companies may consider the common good is the primary business objective. This study aims to map the unknown topography of corporate SDGs participation of the 2000 sustainability report largest publicly traded companies in the world. First, using logistic and quantum regression, the potential associations between SDG involvement is reported and company attributes examined Quantitative for a sample of the 2000 largest listed companies all around the world.

(Saxena & Arti, 2012) in her research paper titled 'Disclosure Practices of Global Reporting Initiatives (GRI) for Sustainability Reporting in India' has mentioned about the history of GRI and GRI in the Indian scenario. Clear analysis of the selected Indian companies according to the GRI guidelines has also been made by developing GRI score cards for the selected units.

DATA ANALYSIS AND INTERPRETATION

Chart 1 Overall Work Reported on 17 SDGs
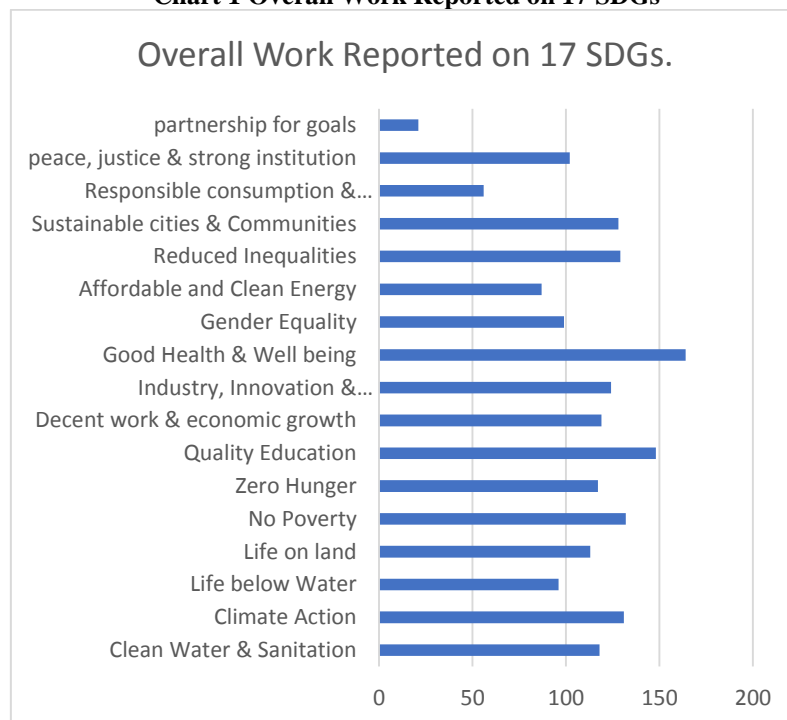
Interpretation
Through the above graph it is been observed that the slightest work is sealed on 2 out of 17 goals, those are: partnership for Goals and Responsible Consumption and Production. However, the goals which were focused more are: Good Health and Well Being, Quality Education, No Poverty, Climate Action, Sustainable Cities and Communities and Reduced Inequalities. Moreover, remaining 9 out of 17 Goals have Moderate Rate of fulfilment of the SDG'

Table: 1 Descriptive Analysis of 17 SDGs

Descriptive Statistics						
	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
No Poverty	248	0	4	2.95	.079	1.249
Zero Hunger	248	0	4	2.69	.091	1.432
Good Health & Well being	248	0	4	3.21	.061	.956
Quality Education	248	0	4	3.08	.069	1.082
Gender Equality	248	0	4	1.68	.112	1.763
Clean Water & Sanitation	248	0	4	2.31	.105	1.655
Affordable and Clean Energy	248	0	4	1.48	.108	1.703
Decent work & economic growth	248	0	4	2.01	.107	1.685
Industry, Innovation & Infrastructure	248	0	4	2.42	.101	1.598
Reduced Inequalities	248	0	4	2.35	.103	1.620
Sustainable cities & Communities	248	0	4	2.38	.099	1.562
Responsible consumption & Production	248	0	4	.68	.087	1.373
Climate Action	248	0	4	2.38	.104	1.633
Life below Water	248	0	4	1.82	.112	1.759
Life on land	248	0	4	2.42	.101	1.598
Peace, Justice & Strong Institution	248	0	4	1.99	.110	1.725
Partnership for Goals	248	0	4	.40	.070	1.108

Interpretation

The above table shows Descriptive Analysis of 17 Sustainable Development Goals (SDGs) with respect to Minimum and Maximum value for reporting. Moreover, the table shows Mean Value and Standard Deviation of the same. The analysis is done by Scoring Method where representation is done as follows:

0 = No Information Provided, 1 = Only Qualitative Data Provided, 2 = Qualitative and Quantitative Data Provided, 3 = Qualitative and Quantitative Data Provided with Indirect mode of implementation, 4 = Qualitative and Quantitative Data Provided with Direct mode of implementation.

Through mean Value in the above table shows that quite less amount is spent on Affordable and Clean Energy (1.48), Responsible Consumption and Production (0.68), and Partnership for Goals (0.40). This indicates that the SDG Reporting in above 3 goals are Near to '1' which represents Only Qualitative Data are provided. On No poverty, Zero Hunger, Good Health and Well Being and Quality Education were near to '3' that means that Qualitative and Quantitative data were implemented through indirect mode.1.68 to Gender Equality, 2.31- Clean Water and Sanitisation, 2.01- Decent Work and Economic Growth, 2.42- industry innovation and Infrastructure, 2.35- Reduced Inequalities, 2.38- Sustainable Cities and Communities as well as Climate Action, 1.82- Life Below Water, 2.42- Life on Land and 1.99- Peace, Justice and Strong Institutions with only Qualitative and Quantitative data.

Table: 2 Descriptive Analysis of Reporting Practices

Descriptive Analysis of Reporting Practices						
	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
NVG	248	0	1	.96	.013	.197
GRI	248	0	1	.70	.029	.458
Other	248	1	1	1.00	.000	.000

Interpretation

From table 2, it is observed that mean value of Reporting Practices of NVG, GRI and Others are 0.96, 0.70, and 1.00 respectively. It is noticed that the companies follow NVG Principles (36%) and Other (38%) reporting practices more as compared to GRI Reporting Indicators (26%).

Table: 3 Descriptive Analyses of SDGs Activities Distributed in EES

	Descriptive Analysis of SDGs Activities Distributed in EES					
	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Environment	248	0	4	2.66	.095	1.498
Economics	248	0	5	3.94	.081	1.282
Social	248	0	8	4.26	.124	1.965

Interpretation

From the table 3, it is observed that mean value of Environment, Economic, Social are 2.66,3.94 and 4.26 respectively, with 39% for social, 36% for economic and 25%, the least for environment.

Reporting Practices of Chi-Square test of normality

Hypothesis

H0 = There is no association between EES and Reporting Practices.

H1 = There is association between EES and Reporting Practices.

Table: 4 For Environment Component

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	31.708[a]	12	.002
Likelihood Ratio	31.731	12	.002
Linear-by-Linear Association	6.873	1	.009
N of Valid Cases	250		

Interpretation

For Environment: 0.02 < 0.05, hence, H0 rejected. Thus, there is association between environment and reporting practices.

Table 5: For Economic Component

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	31.708[a]	12	.002
Likelihood Ratio	31.731	12	.002
Linear-by-Linear Association	6.873	1	.009
N of Valid Cases	250		

Interpretation

For Economic: 0.013 <0.05, hence, H0 rejected. Thus, there is association between Economic and reporting practices.

Table 6: For Social Component

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	28.153[a]	24	.254
Likelihood Ratio	28.121	24	.255
Linear-by-Linear Association	1.548	1	.213
N of Valid Cases	250		

Interpretation

For Social: 0.254 > 0.05, hence, H0 Accepted. Thus, there is no association between environment and reporting practices.

CONCLUSION

This study analyses company's sustainability report from NSE Index. The disclosures consist of economic, environmental and social reporting. By employing the scoring methodology, all the disclosures have been systematically aggregated into 3 parameters. The scoring methodology adopted to measure the extent of sustainability disclosures has also been explained. The companies listed in NSE are more adherent to the NVG principles which is 36% and GRI Indicators 26% in all sustainability dimensions (EES). According to first hypothesis type, the data was found to be abnormal. Second hypothesis was achieved through Chi-Square test where it was concluded that there is association between Economic and Environment Component with its reporting Practices. However, Social Component proved that there is no association between Social Component and its reporting.

BIBLIOGRAPHY

1. Agarwal, P. (2013). Corporate Governance and Corporate Profitability: Are they Related? - A Study in Indian Context. International Journal of Scientific and Research Publications, 3(12).
2. Aggarwal, P. (2018). SUSTAINABILITY REPORTING AND ITS IMPACT ON CORPORATE FINANCIAL PERFORMANCE. Research Gate. Retrieved from https://www.researchgate.net/publication/323457238.
3. aggarwal, P. (2013). Impact of Sustainability Performance of Company on its Financial Performance: A Study of Listed Indian Companies. Retrieved from Global Journal of Management and Business Research Finance website: http://creativecommons.org/licenses/by-nc/3.0/)
4. Alaimo, L. (2019, August). Sustainable Development and Territorial Differences: an Italian Analysis of Economic Sustainability. Retrieved from Research Gate website: https://www.researchgate.net/publication/335312845
5. Ali, S., Hussain, T., Zhang, G., Nurunnabi, M., & Li, B. (2018, July 14). The Implementation of Sustainable Development Goals in "BRICS" Countries.
6. Cahyaningtyas, S., & Hendri, S. (2020, June). SUSTAINABLE DEVELOPMENT GOALS DISCLOSURES AND COMPANY VALUES: A STUDY OF DIFFERENT TYPES OF INDUSTRY. Retrieved from Research Gate website: https://www.researchgate.net/publication/342465118
7. Ching, H. Y., Gerab, F., & Toste, T. H. (2014). Scoring Sustainability Reports using GRI indicators: A Study based on ISE and FTSE4Good Price Indexes. Journal of Management Research, 6(3), 27. https://doi.org/10.5296/jmr.v6i3.5333
8. Garg, P. (2017). Development of sustainability reporting index (SRI) with special reference to companies in India. DECISION, 44(4), 259–273. https://doi.org/10.1007/s40622-017-0162-8
9. Goyal, K., & Singania, S. (2013). General Standard Disclosure Practices of Global Reporting Initiative (GRI) for Sustainability Reporting in India: A study with special reference to BPCL and Indian oil.
10. Kalkar, P., & Chitanand, A. (2020, August 13). CRITICAL ANALYSIS OF SUSTAINABILITY DATA REPORTING OF SELECTED INDIAN COMPANIES. Retrieved from International Journal of Management (IJM) website: http://www.iaeme.com/ijm/issues.asp?JType=IJM&VType=9&IType=3
11. Klovienė, L., & Speziale, M. T. (2015). Sustainability Reporting as a Challenge for Performance Measurement: Literature Review. Economics and Business, 26, 44. https://doi.org/10.7250/eb.2014.019
12. Kraak, M., Ricker, B., & Engelhardt, Y. (2018). Challenges of Mapping Sustainable Development Goals Indicators Data. ISPRS International Journal of Geo-Information, 7(12), 482. https://doi.org/10.3390/ijgi7120482
13. NECHITA, E., MANEA, C. L., IRIMESCU, A. M., & NICHITA, E.-M. (2020). The Content Analysis of Reporting on Sustainable Development Goals. Audit Financiar, 18(160), 831–854. https://doi.org/10.20869/auditf/2020/160/030
14. Nechita, E., Manea, L., & Nichita, M. (2020). The Content Analysis of Reporting on Sustainable Development Goals. Retrieved from Research Gate website: https://www.researchgate.net/publication/347540787
15. pakkan, Sudhakar, C., Tripathi, S., & Rao, M. (2021, December 23). A Correlation Study of Sustainable Development Goal (SDG) Interactions. Retrieved December 23, 2021, from Research Square website: https://www.researchsquare.com/article/rs-779385/v1
16. Pradhan, P., Costa, L., Rybski, D., Lucht, W., & Kropp, J. P. (2017). A Systematic Study of Sustainable Development Goal (SDG) Interactions. Earth's Future, 5(11), 1169–1179. https://doi.org/10.1002/2017ef000632
17. Redman, A. (2018). Harnessing the Sustainable Development Goals for businesses: A progressive framework for action. Business Strategy & Development, 1(4), 230–243. https://doi.org/10.1002/bsd2.33
18. Saxena, P., & Arti. (2012). Disclosure Practices of Global Reporting Initiatives (GRI) for Sustainability Reporting In India: A Study of Selected Indian Companies.
19. Schipper, C., & Dekker, G. (2019). SUSTAINABLE DEVELOPMENT GOAL INDICATORS IN COASTAL NATURAL AND NATURE-BASED FLOOD DEFENCE. E-Proceedings of the 38th IAHR World Congress.
20. van der Waal, J. W. H., & Thijssens, T. (2020). Corporate involvement in Sustainable Development Goals: Exploring the territory. Journal of Cleaner Production, 252, 119625. https://doi.org/10.1016/j.jclepro.2019.119625
21. Yadav, D. V. (2020). Sustainable Development and Corporate Social Responsibility in India: A Critique. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3761682
22. Yadav, V. (2020, November). SUSTAINABLE DEVELOPMENT AND CORPORATE SOCIAL RESPONSIBILITY IN INDIA: A CRITIQUE. Retrieved from Research Gate website: https://www.researchgate.net/publication/347427316
23. Yusof, S. M., Aris, N. M., & Zaidi, N. S. (2018). Integration Level of Social Environmental Disclosure (SED) Between The Global Reporting Initiative(GRI)- Sustainability Reporting and The International Integrated Reporting Council (IIRC) Reporting Among European Companies. UNIMAS Review of Accounting and Finance, 1(1). https://doi.org/10.33736/uraf.1216.2018
24. Yusof, S., Aris, N., & Zaidi, N. (2018). Integration Level of Social Environmental Disclosure (SED) Between The Global Reporting Initiative(GRI)- Sustainability Reporting and The International Integrated Reporting Council (IIRC) Reporting Among European Companies. Retrieved 2018, from UNIMAS website: Vol. 1 No. 1 2018

25. *Yute, I. (2019, May). SUSTAINABLE DEVELOPMENT GOALS (SDG's) IN CAMEROON. Retrieved from Research Gate website: https://www.researchgate.net/publication/337565806*

26. *Zanten, J. A., & Tulder, R. (2021). Analyzing companies' interactions with the Sustainable Development Goals through network analysis: Four corporate sustainability imperatives. Business Strategy and the Environment. https://doi.org/10.1002/bse.2753*