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Assessing Corporate Governance Excellence: A Comparative Analysis of Primary Sector Companies

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Abstract

This study conducts a comprehensive evaluation of corporate governance practices across primary sector companies, focusing on five key public entities: ONGC, OIL, NMDC, NLC, and CIL. The analysis is performed using a seventeen-point model to assess governance excellence, utilizing both descriptive statistics and non-parametric tests to discern patterns and differences in corporate governance scores for the period from 2011-12 to 2020-21. The findings reveal varying degrees of governance stability and improvement among the companies, with significant differences identified particularly between ONGC and NLC. This research underscores the importance of consistent governance practices in enhancing corporate performance and provides a comparative insight into the governance strategies adopted by leading primary sector companies.

Keywords: Corporate Governance, Primary Sector Companies, Performance Evaluation

I. Introduction

Corporate governance, a critical component of organizational management, refers to the structures, processes, and practices through which companies are directed and controlled (Jensen & Meckling, 1976; Cadbury (2002). Effective corporate governance ensures accountability, fairness, and transparency in a company's relationship with its stakeholders, including shareholders, employees, customers, and the community (Shleifer & Vishny, 1997; Spanos, 2005; Al-Haddad, 2011). The significance of robust governance mechanisms is particularly pronounced in the primary sector, which encompasses industries such as mining, oil, and gas, where companies face unique risks and environmental challenges (Aguilera & Cuervo-Cazurra, 2004).

Over the years, the evolution of corporate governance practices has been subject to rigorous scrutiny, reflecting their pivotal role in enhancing corporate performance and ensuring stakeholder confidence (Mallin, 2016). Studies have shown that companies with strong governance frameworks tend to exhibit superior financial performance and resilience against market fluctuations (Bhagat & Bolton, 2008). This is especially relevant for primary sector companies, where governance practices are critical in managing environmental and operational risks (Claessens & Yafeh, 2012).

The current research aims to evaluate the corporate governance practices of primary sector companies, focusing on their effectiveness and impact on firm performance. By applying a comprehensive methodological approach, including descriptive statistics and non-parametric tests, this study seeks to provide insights into governance trends and their implications for organizational excellence (Ahmed &

Hossain, 2020). The findings will contribute to the broader discourse on corporate governance by highlighting the strengths and weaknesses of governance practices within the primary sector, offering valuable implications for policymakers and industry stakeholders.

II. Literature Review

The evolution of corporate governance has become a crucial area of study, especially in understanding its impact on organizational performance and stakeholder trust. Corporate governance encompasses the frameworks, processes, and practices through which companies are directed and controlled. Early foundational work by **Jensen and Meckling (1976)** established that effective governance mechanisms are essential to mitigating agency problems between managers and shareholders.

Shleifer and Vishny (1997) further expanded this understanding by exploring how various governance structures affect firm performance and the alignment of interests between stakeholders. They emphasized that effective corporate governance can significantly reduce agency costs and improve firm value. In the context of the primary sector, which includes industries such as oil, gas, and mining, corporate governance practices have been critically examined due to the sector's inherent risks and environmental impacts.

Aguilera and Cuervo-Cazurra (2004) highlighted the unique governance challenges faced by primary sector companies, including the need for effective stakeholder management and environmental stewardship. This study underscored the importance of governance frameworks that balance economic goals with social and environmental responsibilities.

Mallin (2016) provided a comprehensive overview of corporate governance practices, focusing on the oil and gas industry. Mallin's work suggests that companies with robust governance mechanisms tend to be more resilient to market and regulatory pressures. This observation is supported by **Bhagat and Bolton (2008)**, who demonstrated that strong governance frameworks positively impact firm performance and investor confidence. The methodological approaches for evaluating corporate governance have also evolved.

Conyon and He (2017) employed statistical methods to analyze executive compensation and governance structures, providing a methodological basis for assessing governance practices. They used both parametric and non-parametric tests to address issues related to data normality, a practice that aligns with the approach taken in the current study.

Brown and Caylor (2006) conducted a large-scale analysis of corporate governance indices, using descriptive statistics to evaluate governance practices across different industries. Their findings offer valuable insights into how governance practices influence firm performance, a perspective that is critical for understanding governance trends in the primary sector.

Claessens and Yafeh (2012) reviewed the impact of corporate governance on financial performance, highlighting the role of board structure, ownership concentration, and regulatory environments. Their work reinforces the importance of governance practices in achieving long-term organizational success.

Recent studies, such as those by **Ahmed and Hossain (2020)**, have utilized advanced statistical tools like the Kruskal-Wallis test to address non-normality in governance data. Their research highlights the importance of applying appropriate statistical methods to ensure the validity of governance evaluations.

Bebchuk and Cohen (2005) provided further insights into the relationship between governance structures and firm performance, emphasizing the role of board independence and shareholder rights in enhancing corporate governance.

Overall, the literature reveals that effective corporate governance is pivotal for achieving organizational excellence, particularly in sectors with high-risk profiles like the primary sector. This study builds on existing research by applying a comprehensive methodological framework to evaluate corporate governance practices, aiming to contribute valuable insights into governance trends and their impact on firm performance.

III. Research Methodology

3.1 Scope of the Study

The scope of this study encompasses a comprehensive analysis of corporate governance practices within primary sector companies over a decade. By evaluating corporate governance scores from a diverse set of companies, the research aims to identify trends, best practices, and areas for improvement in governance excellence. This study focuses on the period from 2011-12 to 2020-21, allowing for a robust examination of how governance practices have evolved in response to regulatory changes, market dynamics, and internal company policies. The findings are intended to contribute to the academic discourse on corporate governance by offering a comparative analysis that highlights the distinctive governance strategies within the primary sector, providing valuable insights for policymakers, scholars, and industry practitioners. This research adopts a multi-faceted methodological approach to evaluate corporate governance practices within primary sector companies. The study is structured around a comprehensive assessment model that considers seventeen critical points of governance (Das 2013), ensuring a holistic evaluation.

3.2 Objective of the Study

The primary objective of this research design is to evaluate the corporate governance scores of the primary sector companies and compare them to identify best practices and areas for improvement. The study aims to contribute to the literature by providing a detailed analysis of corporate governance excellence within the primary sector.

3.3 Sample Selection

The study focuses on five prominent primary sector companies: ONGC, OIL, NMDC, NLC, and CIL, selected based on their Net Worth as on 31 March 2021. These are the largest primary sector companies in the Indian economy which are under the control of the central government of India. The corporate governance scores for these companies were collected for a ten-year period i.e. 2011-12 to 2020-21. The study used secondary data collected from annual reports and corporate disclosures of these companies. The list of selected primary sector companies has been displayed in table 1.

Table 1: Sample Companies

Companies	Name of Companies	Net Worth as on 31-03-21 (In Cr)
Primary Sector Undertakings	ONGC	204,558.56
	NMDC	29,756.14
	OIL	26,210.64
	CIL	16,751.66
	NLC	13,574.68

Source: Annual reports of companies

3.4 Hypothesis for the study

H_1: The Corporate Governance score is normally distributed across all Primary Sector Companies.

H_2: The variances in the Corporate Governance score are equal across all Primary Sector Companies.

H3: There is no significant difference in Corporate Governance score of Primary Sector Companies.

3.5 Statistical Tools

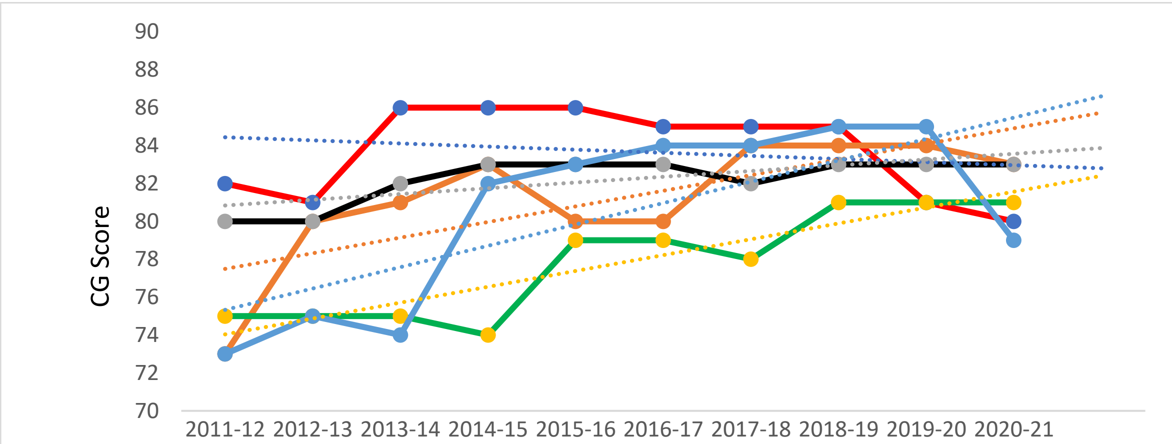
The study applied descriptive statistical tools, including arithmetic mean, standard deviation, skewness, kurtosis, and coefficient of variation to analyze the data. The assumptions of normality and homogeneity of variance were tested using the Kolmogorov-Smirnov and Shapiro-Wilk tests, as well as Levene's test, respectively. The study applied pairwise comparison to further explore the differences, with adjusted p-values calculated to identify significant differences between specific company pairs. All data analyses were performed using SPSS, and the results were presented in tabular and graphical formats to facilitate a clear understanding of the trends and differences in corporate governance practices among the companies.

IV. Results and Discussion

4.1 Trend Lines Depicting Corporate Governance Scores of Primary Sector Companies:

The corporate governance scores of five primary sector companies over the last decade reveal distinct trends. ONGC shows a slight decline from 86 in 2013-14 to 80 in 2020-21, indicating potential governance challenges. OIL exhibits steady improvement, peaking at 84 from 2017-18 onward, reflecting consistent governance enhancement. NMDC maintains stability, with scores fluctuating marginally around 83, signalling sustained governance practices. NLC demonstrates significant progress from 75 in 2011-12 to 81 in 2020-21, suggesting strengthened governance. CIL shows an upward trend peaking at 85 in 2018-19, followed by a drop to 79 in 2020-21, indicating possible recent governance issues. These trends reflect varying degrees of governance practices and improvements across the companies.

Table 2: Trend Lines of Corporate Governance Score of Primary Sector Companies



	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ONGC	82	81	86	86	86	85	85	85	81	80
OIL	73	80	81	83	80	80	84	84	84	83
NMDC	80	80	82	83	83	83	82	83	83	83
NLC	75	75	75	74	79	79	78	81	81	81
CIL	73	75	74	82	83	84	84	85	85	79

Source: Authors Construct

4.2 Descriptive Statistics

Descriptive statistical analysis has been presented in the Table 3. The analysis states that ONGC has the highest mean score, 83.70 points, with standard deviation 2.41 followed by NMDC (82.20), OIL (81.20), CIL (80.40) and NLC (77.80) with standard deviation of 1.23, 3.36, 4.76 and 2.82 respectively. The value of Skewness was found negative for all the companies indicating variation to the higher side of mean. The value of Kurtosis was positive for OIL and NMDC which depicts that the distribution of Corporate Governance score is Leptokurtic i.e., score is around the mean, whereas it is negative for ONGC, NLC and CIL, which states that it is platykurtic i.e., away from the average. Coefficient of variance is least for NMDC (1.49 percent) indicating most consistent compliance of Corporate Governance norms followed by ONGC (2.88 percent), NLC (3.62 percent), OIL (4.14 percent) and CIL (5.92 percent) respectively.

Table 3: Descriptive Statistics

Companies	Mean	Std. Deviation	Skewness	Kurtosis	C.V
ONGC	83.70	2.41	-0.52	-1.77	2.88
OIL	81.20	3.36	-1.75	3.76	4.14
NMDC	82.20	1.23	-1.36	0.37	1.49
NLC	77.80	2.82	-0.12	-1.88	3.62
CIL	80.40	4.76	-0.66	-1.45	5.92

Source: Author's Calculations, SPSS Output.

4.3 Pair-wise Comparison

The pair-wise comparison of Corporate Governance scores of Primary Sector Companies has been conducted by employing Non-Parametric tests i.e., Kruskal Wallis test as the assumptions of normality and homogeneity was not satisfied. Table 4, present the results of the normality test. The analysis indicates that the null hypothesis of normality is rejected in case of all companies at 5 percent and 10 percent level of significance by Shapiro-Wilk test whereas in Kolmogorov-Smirnov test hypothesis is rejected for ONGC, OIL and NMDC. Therefore, it can be concluded that Primary Sector Companies do not satisfy the assumption of normality.

4.4 Test of Homogeneity of Variance

To examine the assumption of homogeneity of variance in the data, Levene's test has been applied. Table 5, reports the result of the homogeneity of variance. Levene's test is used to check the homogeneity of variance. The null is rejected at 5 percent and 10 percent level of significance which shows that variances in the Corporate Governance scores are not equal across all the companies. Thus, the assumption of homogeneity is also not satisfied.

4.5 K-W Test

The study rejected both the assumptions of normality and homogeneity of variance**.** Therefore, non-parametric test Kruskal Wallis test was applied to check the mean difference of Corporate Governance Scores in primary sector companies. The results of the test have been presented in Table 6. The Chi-Square value is 15.208 (df = 4) with *p-value* 0.004 which rejects the null hypothesis (H_3) at 5 percent level of significance, implying that there is a significant difference among Corporate Governance scores of primary sector companies.

Table 7 highlights the mean ranks of Corporate Governance indices of primary sector companies. It is evident from the table that ONGC has the highest mean rank i.e. 36.70 followed by NMDC with mean rank 28.20; OIL with mean rank 25.55; CIL with mean rank 25.20 and NLC with mean rank 11.85.
Table 8 reports the results of pair-wise comparison of Corporate Governance score of primary sector companies. It is evident from the analysis of adjusted p-value that there is a significant difference in Corporate Governance score of primary sector companies with respect to NLC and ONGC (P-Value=0.001). While in case of other pairs of companies, there is no significant difference in Corporate Governance indices.

Table 4: Test of Normality

Name of Companies		Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistics	**df**	**Sig.**	**Statistics**	**df**	**Sig.**
Corporate Governance Indices	ONGC	0.306	10	0.009	0.818	10	0.024
	OIL	0.260	10	0.053	0.785	10	0.010
	NMDC	0.342	10	0.002	0.682	10	0.001
	NLC	0.240	10	0.109	0.851	10	0.060
	CIL	0.231	10	0.138	0.838	10	0.042

Source: Author's Calculations, SPSS Output.

Table 5: Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Corporate Governance Index	Based on Mean	5.695	4	45	0.001
	Based on Median	2.390	4	45	0.065
	Based on Median and with adjusted df	2.390	4	29.011	0.074
	Based on trimmed mean	5.363	4	45	0.001

Source: Author's Calculations, SPSS Output.

Table 6: Significance of Difference among Corporate Governance

Chi-Square	15.208
Df	4
Asymp. Sig.	**0.004**
a. Kruskal Wallis Test	
b. Grouping Variable: Companies	

Source: Author's Calculations, SPSS Output.

Table 7: Mean Ranks

Companies	N	Mean Rank
ONGC	10	36.70
OIL	10	25.55

NMDC	10	28.20
NLC	10	11.85
CIL	10	25.20
Total	50	

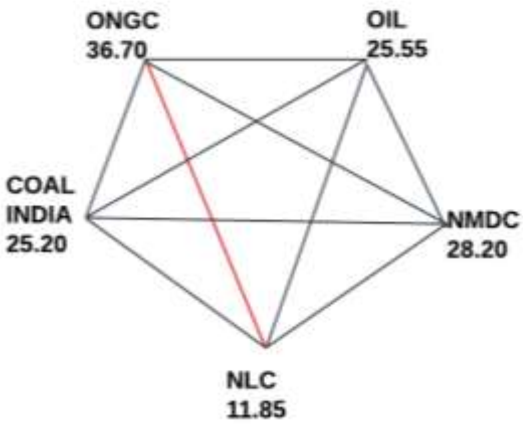
Source: Author's Calculations, SPSS Output.

Table 8: Pair-wise Comparison of Corporate Governance Indices

Sample 1 and Sample 2	Test Statistic	Standard Error	Standard Test Statistics	Sig.	Adj. Sig.
NLC and CIL	-13.350	6.478	-2.061	0.39	0.393
NLC and OIL	13.700	6.478	2.115	0.034	0.345
NLC and NMDC	16.350	6.478	2.524	0.012	0.116
NLC and ONGC	24.850	6.478	3.836	0.000	**0.001***
CIL and OIL	0.350	6.478	0.054	0.957	1.000
CIL and NMDC	3.000	6.478	0.463	0.643	1.000
CIL and ONGC	11.500	6.478	1.775	0.076	0.759
OIL and NMDC	-2.650	6.478	-0.409	0.683	1.000
OIL and ONGC	11.150	6.478	1.721	0.085	0.852
NMDC and ONGC	8.500	6.478	1.312	0.190	1.000

Source: Author's Calculations, SPSS Output.

Figure-1 Pair-wise Comparison of Corporate Governance Indices



(Each node indicates the sample average rank of Corporate Governance Indices of Companies)

Figure-1 depicts the pairwise comparison of Corporate Governance indices of primary sector companies in the form of diagrammatic figure where the pairs indicated by red lines reflect the pairs of companies having significant difference between their mean ranks of Corporate Governance indices while the pairs highlighted by black lines indicated the insignificant ones. Hence, it can be observed from the below diagram that the pair of NLC and ONGC is highlighted by red line indicating significant difference in their mean ranks of Corporate Governance indices whereas, other pairs of Primary Sector Companies are highlighted by black lines signifying insignificant differences.

V. Conclusion

The comparative analysis of corporate governance practices among primary sector companies reveals significant variations in their governance scores over the last decade. ONGC consistently exhibited strong governance, though with a slight decline towards the end of the study period, while OIL showed steady improvement, particularly after 2017-18. NMDC maintained stable governance practices with minimal fluctuation, whereas NLC demonstrated notable progress, indicating a strengthening of its governance framework. CIL, despite an initial upward trend, faced governance challenges in recent years, as reflected in its declining scores. The study highlights the importance of robust governance practices and the need for continuous improvement to address emerging challenges. The significant differences observed, especially between ONGC and NLC, underscore the need for tailored governance strategies that reflect the unique contexts of each company. Overall, this research contributes valuable insights into the corporate governance dynamics within the primary sector.

This study underscores the critical need for enhanced corporate governance frameworks within primary sector companies, particularly emphasizing the importance of consistent governance practices to sustain corporate excellence. Policymakers should consider refining regulatory guidelines to address governance disparities across companies, fostering a more uniform and robust governance landscape. Future research could extend this analysis to secondary and tertiary sectors, exploring the impact of governance practices on overall corporate performance across various industries.

References

1. Aguilera, R. V., & Cuervo-Cazurra, A. (2004). Codes of good governance. *Corporate Governance: An International Review, 12*(3), 287-304. https://doi.org/10.1111/j.1467-8683.2004.00374.x
2. Ahmed, K., & Hossain, M. (2020). Statistical methods in corporate governance research: A review. *International Journal of Financial Studies, 8*(2), 31-45. https://doi.org/10.3390/ijfs8020031
3. Al-Haddad, W.M.Y., Alzurqan, S.T. & Al-Sufy, F.J. (2011). The Effect of Corporate Governance on the Performance of Jordanian Industrial Companies: An Empirical Study on Amman Stock Exchange. *International Journal of Humanities and Social Science,* 1(4): 55-69.
4. Bebchuk, L. A., & Cohen, A. (2005). The costs of entrenched boards. *Harvard Law Review, 116*(8), 1927-1994. https://doi.org/10.2307/4093437
5. Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. *Journal of Corporate Finance, 14*(3), 257-273. https://doi.org/10.1016/j.jcorpfin.2008.03.006
6. Brown, L. D., & Caylor, M. L. (2006). Corporate governance and firm performance. *The Review of Quantitative Finance and Accounting, 26*(1), 1-24. https://doi.org/10.1007/s11156-005-8430-5
7. Cadbury, A. (2002). Corporate Governance and Chairmanship: A Personal View. Oxford University Press. DOI:10.1093/acprof:oso/9780199252008.001.0001
8. Claessens, S., & Yafeh, Y. (2012). Corporate governance in emerging markets: A survey. *Emerging Markets Review, 13*(3), 122-144. https://doi.org/10.1016/j.ememar.2012.04.001
9. Conyon, M. J., & He, L. (2017). Executive compensation and corporate governance in China. *Journal of Corporate Finance, 43*, 118-136. https://doi.org/10.1016/j.jcorpfin.2017.01.003
10. Das, S.C. (2013). Corporate Governance Codes, Systems, Standards and Practices. Second Edition, PHI Learning Publication, Delhi.
11. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics, 3*(4), 305-360. https://doi.org/10.1016/0304-

405X(76)90026-X
12. Mallin, C. A. (2016). Corporate governance (4th ed.). Oxford University Press.
13. Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance, 52*(2), 737-783. https://doi.org/10.1111/j.1540-6261.1997.tb04820.x
14. Spanos, L. J. (2005). Corporate Governance in Greece: Developments and Policy Implications. *Corporate Governance: The International Journal of Business in Society*, 5(1), 15-30.