CORPORATE GOVERNANCE PARAMETERS AND THEIR IMPACT ON ENTERPRISE PERFORMANCE

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Abstract

Corporate governance incorporates the framework of ethical and legislative decision-making approaches within the management, which empowers the relationship between the firm and its stakeholders. The affiliation between economic enactment and management and governance of the enterprises has helped attract external stakeholders to the business. This research aims to assay the effect of corporate governance parameters on the accomplishment of the sampled enterprises. The study has used a sample of S&P CNX Nifty 50 Index enterprises, excluding banking and financial services enterprises, during the period of FY2012–2013 to FY2018–2019. Panel linear model regression with pooled ordinary least squares (OLS) test has been used to analyze the data. Results show that there is a link between and impact of board parameters such as board size and audit committee (AC) independence on the market and financial outcomes of the enterprise's proxies by return on net worth (RONW), return on capital employed (ROCE), return on assets (ROA), and Tobin's Q.

Keywords: Corporate Governance, Enterprise Performance, Panel Linear Model Regression, Board Parameters, Tobin's Q

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1. INTRODUCTION

In the present scenario, corporate governance (CG hereafter) is the most imperative and discussed topic around the world now. It is a word that has been used and abused many times and has been heard, read, and spoken about innumerable times in all forms of media currently in existence. CG is vastly defined as a framework with well-structured and defined rules and regulations about the process that directly subsumes an organization's decision-making. It controls the major functions in an organization through a vast array of rules, formats, and procedures for the management or the decision-makers in a hierarchically structured organization. It defines the delegation of responsibilities and roles "within the stakeholders of the company" (Palaniappan, 2017).

Failures and collapses of major enterprise institutions, throughout the years and worldwide, have given rise to the research involving CG and its effect on enterprise performance (EP hereafter) (Letza et al, 2004). Major giants like Enron Corporation and WorldCom in the USA, Satyam Computer Services Ltd, and Jet Airways in India are some of the major examples (Saha & Kabra, 2019). These incidences of gross CG negligence and a spree of scandals in the 1990s caused some major reforms in this domain. Starting with the Cadbury Committee established in 1991 in the UK the Sarbanes-Oxley (SOX) Act of 2002 (Boubaker et al., 2012) to

the Dodd-Frank Act of 2010 in the USA. Post-1991, by deciding to initiate the opening up of the Indian economy by adopting the LPG (liberalization, privatization, and globalization) model CG issues have become a serious problem slowly but steadily. In 1999, a committee headed by Mr. Kumar Mangalam Birla which was instituted under the vigilance of the Securities and Exchange Board of India (SEBI) prescribed mandatory recommendations about the composition of the Board of Directors, Audit Committee, Remuneration Committee, and meetings held by the board (SEBI, 2000). With the introduction of the landmark Companies Act, 2013, a significant increase in adherence to corporate governance issues can be witnessed by the listed companies, as it was mandated by the law and regulator SEBI to adhere to the regulations prescribed in the act (Kanungo & Dash, 2016). A third major implication of corporate governance has been noticeable in India by constituting the Uday Kotak committee by SEBI in 2017 which recommended the dual role of chairman and managing director and a percentage increase of female directors and independent directors on the board to enhance the effectiveness of board practices.

This paper is all about evaluating and analyzing the repercussion of CG on influencing enterprise results. This research involves a detailed examination of the affiliation between CG and EP. The study has considered the central conventional variables used as a proxy for CG measures such as board size, board independence, board meetings quantum in a year, audit committee independence, and proportion of shares under promoters' control or ownership consolidation.

Further, the study has been divided into the following sections. Section 2 contains the literature review and proceeds with the formulation of the hypotheses in Section 3. Section 4 deals with the details of the research methodology. Section 5 highlights the empirical results and discussion. Finally, Section 6 concludes and cites the recommendations and limitations, and future scope of the study.

2. LITERATURE REVIEW

The influence of CG on EP, both market and financial, is the sole focus of this study. In the past, detailed analysis has been done on this topic but most of them have been specific to western developed economies (Jensen, 1993). From the Indian perspective captures a detailed analysis of how EP can be affected by CG measures and decision-making by the board of directors and management (Saha & Kabra, 2019). Gompers et al. (2003) formulated a "Governance Index", a proxy for the "measurement of governance score, using 24 unique and specific rules of governance and investment decisions by shareholders" (p. 11–14). Shleifer and Vishny (1996) explored the relationship between CG and the returns that existing and potential shareholders receive on the investment of their external capital.

A board size of a listed organization has been contentious in the various research studies performed in the past. Some studies have shown a positive trend for the correlation between the board size and the financial accomplishments of the companies, and some have shown that the board size has no significant imprint on EP. As per Jackling and Johl's (2009) study, India's top companies suggested that the greater the board size of the company, the greater the positive impact on the EP. Kathuria and Dash (1999) and Linck et al. (2008) deduced a positive correlation between the size of the organization and the board size. Lange and Sahu (2008) observed a slight but negative relation between firm scale and performance. Lipton and Lorsch (1992) found that the exchange of ideas becomes tough and ideas get diluted when the board size grew. They also concluded that the productive time in a meeting decreased with higher board size. However, in the Indian scenario, we have seen that the number of board members increased to fifteen in the Companies Act, 2013 from twelve in the previous version of the Act of 1956.

It is well and broadly assumed, and also widely accepted that more the quantum of independent directors resulted in a better discharge of performance in financial terms by the company. The revolutionary and path-breaking "Agency Theory" by Jensen and Meckling (1976) corroborates a similar notion and studies have also lent support and credibility to this theory. Fama and Jensen (1983) put it worth their idea that the structure of the board, for the efficient discharge of duties and enhancement of performance, should be constituted with a proportion monopolized by the non-executive independent directors. The emergence and the gain of the importance of independent directors eventuated from the SOX Act 2002 which prescribed a minimum number of independent directors. The Companies Act, 2013, on similar lines, has mandated a minimum of 33% of independent directors in Indian public companies. In the USA, importance is given to the role of an independent director to assuage agency conflicts, however, in growing economies such as India, where the holding is mainly consolidated in family-controlled businesses, the effect of the independent director subsides, while measuring the results of companies (Khanna & Palepu, 2000).

There has been mixed notion about the board meetings. Some hold the view that they are productive, and some differ from that. Chen et al. (2016) found that board meetings can be an essential proxy to board performance. Ghosh (2007) showed that attendance in board meetings has a positive relation to EP. Lipton and Lorsch (1992) found that board meetings are fruitful if the members showed sincerity to resolve issues and that boosted the financial ratios in a better way. However, Jensen (1993) stated in his study that an increased quantum of board meetings resulted in costs and expenses for an enterprise.

Research on ownership structure and consolidation in the Indian context has shown the "horizontal agency problem" or "principal-principal agency problem", is mainly caused when the control of the decision-making system is saturated with the owner(s) and it increases the cost of day-to-day operations (Ducassy & Guyot, 2017). This problem arises primarily due to the dominance of family-owned businesses where the promoters are from a sole family and they have a holding stake (Fama & Jensen, 1983). Studies have shown the importance of the protection of minority shareholders as it directly affects performance

(Kumar & Singh, 2012). Mak and Kusandi (2005) from their empirical study found that stronger ownership consolidation leads to smaller board size and eventually better financial results for organizations. Singh and Gaur (2009) also found that negative relation between ownership consolidation and EP. They also noted that board independence had an adverse relationship with firm performance.

Audit committees were formed to ensure that the financial auditing of the firms took place independently and it portrayed an authentic financial picture of the firm. Amar (2014) and Klein (2002) have shown that a decrease in audit committee independence can result in a significant decline in firm performance. Klein (2002) also stated that it may lead to "abnormal accruals" and that profound and significant results are shown when the board structure is more independent. On the contrary, Berkman and Zuta (2017) found a relatively insignificant relationship between ACI and EP.

In some of the more recent studies, it was found that the size of the board and the size of the audit committee negatively impacted the firm's performance, while the composition of the board of directors and percentage of foreign ownership positively impacted the performance of Indian companies in the hospitality sector (Yameen et al., 2019). A study based in Vietnam indicated that earnings quality and CG, as represented by the number and composition of the board of directors, had a positive effect on the corporate value of the enterprises (Dang et al., 2020). It has been found that family ownership has a negative relationship with the profitability of companies. At the same time, board size and gender diversity on the board positively influence the profitability of companies in Indonesia (Hakimah et al., 2019).

Almashhadani (2021) investigated the impact of corporate governance structure and policy on profitability in both developed and developing economies. He found that there are significant differences in standards of corporate governance in developed countries as compared to developing countries. He contends that the impact of CG on enterprise performance is more pronounced the developed economies. Studies based on Chinese markets indicated that improved quality in CG has a negative effect on the financial leverage of the companies. This financial leverage in turn, significantly reduces the profitability of the companies, especially during the economic downturn (Zhou et al., 2021).

3. RESEARCH HYPOTHESES

The CG framework includes parameters such as board size (BS), board independence (BI), audit committee independence (ACI), board meetings (BM) conducted, and the ownership concentration (OC) of the companies. These parameters are an integral part of measuring the efficacy of CG in accompany. The size of the board indicates the number of directors on the board. The independence of the board indicates the presence of independent directors on the board of directors. Similarly, the independence of the audit committee indicates the proportion of independent directors in the audit committee. Board meeting indicates the number of meetings held for the board of directors and the frequency of the meetings.

The study focuses on the impact of the aforementioned CG parameters on the EP of the company. This performance is measured through multiple parameters, such as return on net worth (RONW), return on capital employed (ROCE), return on assets (ROA), and Tobin's Q. The study focuses on the premise that better CG parameters would lead to better financial performance of the company.

3.1. Board size

The quantum of directors sitting on the board has been considered in many previous studies. Studies have shown that in times of conflict between board members or in situations of disharmonious decision-making, smaller BS is preferred rather than greater BS, even if the organization is larger (Alexander et al., 1993). Coles et al. (2008) found that EP can improve if the BS increases. Based on these findings, the hypothesis has been defined for BS as:

$H1_0$ (null hypothesis): There is no significant relationship between BS and EP.

H1 (alternative hypothesis): There is a significant relationship between BS and EP.

3.2. Board independence

Board independence (BI) is usually represented as the proportion of non-executive directors (NEDs) and independent directors (IDs) out of the total board members. Studies have shown that ID has a direct impact on work ethics and the maximization of shareholder values (Fama, 1980). Mak and Kusandi (2005) found that EP is positively conjoined with the higher quantum of ID on board. Studies have also discovered an insignificant relationship between BI and EP (Bhagat & Black, 2001; Bradbury et al., 2006). However, some studies show a significant and negative linkage between BI and EP (Beasley, 1996; Klein, 2002). Upon reviewing the cited works, the hypothesis defining BI as:

$H2_0$ (null hypothesis): No existence of a significant relationship between BI and EP.

H2 (alternative hypothesis): Existence of a significant relationship between BI and EP.

3.3. Board meetings

Availability of conflicting study results on the aspect of the importance of board meetings (BM) and its implication. BM variable is calculated by the quantum of board meetings held annually. Lipton and Lorsch (1992) stated that when the board meets more frequently, they are bound to discuss important matters which need attention and as a result, it boosts the firm performance. They also arrived at the finding that setting a fixed number of meetings can help with improvement in efficiency and reduce the cost incurred because of the meetings. Vafeas (1999) found that BM is an important attribute and cannot be ignored, but he could not establish a relationship with the performance of the company. Jensen (1993) found that BM was a costly affair and the time spent on meetings had no significant implication on the company's performance. Therefore, based on the literature cited, it concludes that BM is an important variable and hypothesizes the following:

$H3_0$ (null hypothesis): No existence of a significant relationship between BM and EP.

H3 (alternative hypothesis): Existence of a significant relationship between BM and EP.

3.4. Audit committee independence

An audit committee in an organization is comprised of the existing board of directors whose primary job is to maintain a fair and egalitarian proceeding in financial reporting and disclosure. The audit committee independence (ACI) is calculated as the proportion of ID in the committee which oversees auditing. As mentioned in previous sections, the CG norms in India ask the enterprises to maintain at least two-thirds of the total strength of the committee to be comprised of ID. Al-Mamun et al. (2014) and Klein (2002) found a positive relationship between EP and ACI. Whereas, Idris et al. (2018), and Berkman and Zuta (2017) found no significant relationship between ACI and EP. Therefore, on the premise of the cited works, the hypothesis has been made as:

$H4_0$ (null hypothesis): No existence of a significant relationship between ACI and EP.

H4 (alternative hypothesis): Existence of a significant relationship between ACI and EP.

3.5. Ownership consolidation

In India, where most of the listed companies, except the public sector undertakings (PSUs), are family-owned businesses, this variable becomes important to be considered in this research. Heugens et al. (2009) found in their study that OC is deemed redundant in those firms where there is "strong legal protection of minority shareholders" (p. 481). Ducassy and Guyot (2017), and Mak and Kusandi (2005) discovered a strong relationship between OC and EP. Wahla, Shah, and Hussain (2012) found an insignificant relationship between ownership concentration and firm performance. The ratio of shareholding by promoters is taken as a proxy for ownership consolidation. In this scenario, promoters are defined as the largest group of shareholders who look at managing the business. Therefore, the hypothesis has been made as:

$H5_0$ (null hypothesis): No existence of a significant relationship between OC and EP.

H5 (alternative hypothesis): Existence of a significant relationship between OC and EP.

4. RESEARCH RESULTS

This section will describe the methodology involved in hypothesis testing and empirical analysis of the data about the formation, independence, and attribute of the board and ownership and its result on EP.

4.1. Data collection and sample selection

A total of 240 sample observations were collected from 40 companies which are from S&P CNX Nifty50 Index companies excluding the banking and financial service companies. The study has considered the period FY2012–2013 to FY2018–2019. The data was collected from Prowess database extraction by the Centre for Monitoring the Indian Economy (CMIE). Other statistics have been taken from various annual reports of the companies and credible websites like Yahoo Finance.

4.2. Variables construction

4.2.1. Dependent variables

The dependent variables considered are the market and financial accounting performance indicators of the firms. For financial accounting indicators, return on net worth (*RONW*), return on capital employed (*ROCE*), and return on assets (*ROA*) have been taken into consideration. For market performance indicator, Tobin's Q (*TQ*), has been taken as it is a better indicator of market-related results. Table 1 shows the details of the dependent variables.

Table 1. Dependent variable description

Variable	*Variable name*	*Definition*
RONW	Return on net worth	PAT/Shareholder's equity
ROCE	Return on capital employed	EBIT/(Total assets – Current liabilities)
ROA	Return on assets	PAT/Total assets
TQ	Tobin's Q	Total market value/Total assets

4.2.2. Independent and control variables

The independent variables which are chosen are projected in below Table 2.

Table 2. Independent variable description

Variable	*Variable name*	*Definition*
BS	Board size	Number of the board of directors
BI	Board independence	Number of non-executive independent directors
ACI	Audit committee independence	Number of independent board members on the audit committee
BM	Board meeting	Number of board meetings held annually
OC	Ownership consolidation	Percentage of shares held by the promoters of the company

From the literature, it is clear that there are some other factors, apart from the independent variables which influence the performance of a firm. The variables are as follows:

- enterprise size (*ES*), has been taken as the natural log (ln) of annual total sales (Singh & Gaur, 2009);
- financial leverage, for which the debt-equity (*DE*) ratio has been taken as a proxy (Arora & Bodhanwala, 2018).

4.2.3. Empirical model

The following regression equations were built by panel linear model regression (PLMR) (El-Habashy, 2019) with pooled OLS in R-Studio:

$$RONW = \alpha + \beta_1 BS + \beta_2 BI + \beta_3 ACI + \beta_4 BM + \beta_5 OC + \beta_6 ES + \beta_7 DE + \varepsilon \quad (1)$$

$$ROCE = \alpha + \beta_1 BS + \beta_2 BI + \beta_3 ACI + \beta_4 BM + \beta_5 OC + \beta_6 ES + \beta_7 DE + \varepsilon \quad (2)$$

$$ROA = \alpha + \beta_1 BS + \beta_2 BI + \beta_3 ACI + \beta_4 BM + \beta_5 OC + \beta_6 ES + \beta_7 DE + \varepsilon \quad (3)$$

$$TQ = \alpha + \beta_1 BS + \beta_2 BI + \beta_3 ACI + \beta_4 BM + \beta_5 OC + \beta_6 ES + \beta_7 DE + \varepsilon \quad (4)$$

where, *RONW*, *ROCE*, *ROA*, and *TQ* are the proxies for the measures of firm performance of a company; α is the constant term; β_1, β_2, …β_7 are coefficients for the independent variables *BS*, *BI*, *ACI*, *BM*, *OC*, *ES*, and *DE*; and ε is the standard error term.

5. RESULTS AND DISCUSSION

5.1. Pearson's correlation result

Table 3 gives descriptive statistics for 40 companies from FY 2012–2013 to FY 2018–2019. It gives the details of all the variables considered in the study.

Table 3. Summary statistics

Variable	*Mean*	*Median*	*Std. dev*	*Min*	*Max*
ROE	20.25	17.38	15.62	-32.84	110.37
ROCE	16.31	11.43	15.97	-10.40	109.18
ROA	10.27	7.84	7.76	-7.37	32.89
TQ	2.78	1.76	3.10	0.16	19.82
BS	15.12	15.00	3.67	0.00	26.00
BM	8.48	9.00	3.10	2.00	18.00
BI	1.53	0.00	2.43	0.00	10.00
ACI	4.84	4.00	1.52	0.00	14.00
OC	48.62	52.80	19.04	0.19	90.00
ES	12.93	13.02	1.19	10.26	15.64
DE	0.62	0.32	0.69	0.00	2.62

To evaluate the correlations between the dependent variables and the independent variables correlation matrix has been developed which is shown in Table 4. The correlation values are significant at $\alpha = 0.05$. The correlation coefficients should have a value between -1 and +1. It has been observed that none of the explanatory variables have a coefficient of more than 0.8. Therefore, it can be said that multicollinearity amongst the independent variables does not exist (Palaniappan, 2017). Also, multicollinearity can be checked from the variance inflation factor (VIF) in Table 5. We can observe that VIF values for all the dependent variables (in rows) and independent variables (in columns) are between 1 to 10. All the values are more than 1 and less than 10, hence, satisfying the conditions mentioned in their study (Chatterjee & Price, 1977). This also signifies that there is no existence of any multicollinearity between dependent and independent variables. Table 4 shows that *BS* has a negative correlation with the dependent variables. Therefore, it can be said that *BS* is feebly, and negatively correlated with *EP* metrics. *BM* also has a similar pattern to the dependent variables. Here also, it can be said that *BM* is feebly, and negatively correlated with the dependent variables. With *BI*, it has been noticed that it has a feeble positive correlation with the *EP* metrics. *ACI* has also a weak positive correlation with the dependent variables. The final independent variable which is OC also has shown a weak positive correlation with the dependent variables.

Table 4. Pearson's correlational analysis

Correlation	*RONW*	*ROCE*	*ROA*	*TQ*	*BS*	*BM*	*BI*	*ACI*	*OC*	*ES*	*DE*
RONW	1.000										
ROCE	0.960	1.000									
ROA	0.803	0.858	1.000								
TQ	0.732	0.788	0.790	1.000							
BS	-0.187	-0.184	-0.185	-0.204	1.000						
BM	-0.043	-0.062	-0.105	-0.133	-0.033	1.000					
BI	0.029	0.015	0.055	0.172	0.132	-0.026	1.000				
ACI	0.128	0.144	0.051	0.084	0.394	0.136	0.091	1.000			
OC	0.142	0.148	0.051	0.092	-0.128	0.185	0.155	0.312	1.000		
ES	-0.198	-0.197	-0.294	-0.410	0.438	0.059	-0.274	0.163	-0.020	1.000	
DE	-0.452	-0.577	-0.694	-0.544	0.140	0.088	-0.115	-0.089	-0.155	0.309	1.000

Table 5. VIF measurements for variables

VIF	*RONW*	*ROCE*	*ROA*	*TQ*
BS	1.036	1.035	1.035	1.044
BM	1.002	1.004	1.011	1.018
BI	1.001	1.000	1.003	1.030
ACI	1.017	1.021	1.003	1.007
OC	1.021	1.022	1.003	1.009
ES	1.041	1.041	1.095	1.202
DE	1.257	1.498	1.931	1.420

5.2. Regression results

To test the formulated hypotheses PLMR test was done after the correlation analysis. The panel regression test was run keeping the firm performance metrics, which are *RONW*, *ROCE*, *ROA*, and *TQ* as the dependent variables; *BS*, *BM*, *BI*, *ACI*, and *OC* as the independent variables, and *ES*, and *DE* signifying the control variables. Tables 6 and 7 depict the summary output of the PLMR analysis. Table 6 shows that *RONW* has an R^2 of 0.245, which means 24.5% of the variance in *RONW* is explained by the independent variables which have been selected. The F-statistic is 12.64 and the p-value is very small. Hence it is significant at the 5% level. The R^2 of *ROCE*, *ROA*, and Tobin's Q are 0.369, 0.502, and 0.386 respectively. Calculated F-statistics for *ROCE*, *ROA*, and *TQ* are 22.749, 39.154, and 24.420, respectively. All the variables have infinitesimally small values; hence they are significant at the 5% level.

Table 6. Regression model output summary

Variable	*R-square*	*Adjusted R-square*	*S.E. of estimate*	*F-stat*	*p-value*
RONW	0.245	0.226	13.739	12.640	0.000
ROCE	0.369	0.353	12.843	22.749	0.000
ROA	0.502	0.489	5.549	39.154	0.000
TQ	0.386	0.370	2.463	24.420	0.000

Table 7 summarized the PLMR output for the dependent variables. In this model, equation (1) for *RONW*: the variables *BS*, *ACI*, and *DE* are statistically significant; the rest of the variables *BM*, *BI*, *OC*, and *ES* are statistically insignificant. In equation (2) for *ROCE*: the variables *BS*, *ACI*, and *DE* are statistically significant; the rest of the variables *BM*, *BI*, *OC*, and *ES* are statistically insignificant. In equation (3) for *ROA*, the variables *BS*, *ACI*, and *DE* are statistically significant; the rest of the variables *BM*, *BI*, *OC*, and *ES* are statistically insignificant. In equation (4) for *TQ*: the variables *BS*, *BM*, *ACI*, *ES*, and *DE* are statistically significant; the rest of the variables *BI* and *OC* are statistically insignificant.

Table 7. Panel regression output

Dependent variable	*Independent variable*	*Estimate*	*Standard error*	*t-value*	*p-value*
RONW	Intercept	34.748	10.002	3.474	0.001
	BS	-0.790	0.294	-2.682	0.008
	BM	-0.193	0.274	-0.705	0.482
	BI	-0.116	0.376	-0.309	0.758
	ACI	1.765	0.650	2.716	0.007
	OC	0.010	0.049	0.206	0.837
	ES	-0.317	0.862	-0.368	0.713
	DE	-9.127	1.295	-7.049	0.000
ROCE	Intercept	27.453	9.349	2.936	0.004
	BS	-0.774	0.275	-2.811	0.005
	BM	-0.235	0.256	-0.917	0.360
	BI	-0.251	0.352	-0.715	0.475
	ACI	1.818	0.607	2.993	0.003
	OC	0.002	0.046	0.045	0.964
	ES	0.144	0.806	0.178	0.859
	DE	-12.575	1.210	-10.389	0.000
ROA	Intercept	24.076	4.039	5.961	0.000
	BS	-0.218	0.119	-1.834	0.008
	BM	-0.107	0.111	-0.964	0.336
	BI	-0.063	0.152	-0.416	0.678
	ACI	0.379	0.262	1.445	0.041
	OC	-0.032	0.020	-1.608	0.109
	ES	-0.394	0.348	-1.133	0.258
	DE	-7.538	0.523	-14.413	0.000
TQ	Intercept	12.612	1.793	7.035	0.000
	BS	-0.100	0.053	-1.896	0.006
	BM	-0.097	0.049	-1.979	0.049
	BI	0.083	0.067	1.232	0.219
	ACI	0.298	0.116	2.557	0.011
	OC	-0.005	0.009	-0.600	0.549
	ES	-0.586	0.154	-3.794	0.000
	DE	-1.965	0.232	-8.465	0.000

Note: p < 5%.

Table 8. Hypothesis tests output summary

Hypothesis		*RONW*	*ROCE*	*ROA*	*TQ*
$H1_0$	There is no relationship of significance between BS and EP.	Negative and significant	Negative and significant	Negative and significant	Negative and significant
$H2_0$	There is no relationship of significance between BI and EP.	Negative and insignificant	Negative and insignificant	Negative and insignificant	Positive and insignificant
$H3_0$	There is no relationship of significance between BM and EP.	Negative and insignificant	Negative and insignificant	Negative and insignificant	Negative and insignificant
$H4_0$	There is no relationship of significance between ACI and EP.	Positive and significant	Positive and significant	Positive and significant	Positive and significant
$H5_0$	There is no relationship of significance between OC and EP.	Positive and insignificant	Positive and insignificant	Negative and insignificant	Negative and insignificant

The result of this study is that having an optimal number for *BS*, and *ACI* is imperative when it matters to measuring the *EP*. Firstly, for *BS*, it has been observed that after the implementation of the Companies Act, 2013, the *BS* and *EP* metrics are negatively correlated. One of the reasons is that since all the companies in the sample study are big, they might have a larger *BS*, and therefore, it has a compelling weight on *EP*. It can be stated that for an enterprise, it is very much important to have a distinguish *BS* because a larger *BS* may lead to more costs and gaps in communication among the board members. However, for companies with boards already greater than an optimal number, right-sizing can potentially damage the reputation of the enterprise as it would mean the removal of an existing director (Coles et al., 2008). It can be achieved in the long run when the tenure of the sitting directors comes to an end and the firm decides not to appoint to right-size the board. But in the long run, it may incur hefty costs (Cicero et al., 2013). Secondly, the significantly positive

relationship between *ACI* and *EP* reveals that compliance with the regulations prescribed by the Companies Act, 2013 resulted in a positive outcome in *EP* for the enterprises. *ACI* also makes sure that rash or zealous investing decisions are not taken by the management executives which may result in bad investments for the firm (Nor et al., 2018). These two findings give a confidence boost to shareholders, especially to investors and lenders (Saha & Kabra, 2019). It also found that *ACI* and *EP* are in coherence with the agency theory which emphasizes the independence of the audit committee for a decrease in costs incurred by the agency (Yegon et al., 2014).

As seen in the results of the study, it is found that out of the five CG parameters taken into account, only two parameters, *BS* and *ACI*, have a significant impact on the financial performance of the companies. This indicates to the managers that it is prudent to determine the optimal size of the board of directors as early as possible. The Companies Law in India (Companies Act, 2013) gives a minimum and maximum size for the number of board of directors permissible for a company. Hence, the shareholders and management get leeway in determining the number of directors on the board. The result of the study indicates that having a large board would have a negative impact on the financial performance of the company. This indicates that managers should aim at optimal board size to maintain the good financial performance of the company.

The other CG factor which is found to have a positive impact on the financial performance of the companies is ACI. ACI indicates the proportion of independent directors in the audit committee. This parameter indicates that independence in the audit committee signifies better control of the accounts of the business. The result indicates a higher degree of independence in the committee would lead to the better financial performance of the company. For the management of the company, this is an indication to ensure a higher proportion of autonomy and independence in the audit committee to ensure better financial performance of the company.

Conversely, the significance of these two factors would also be helpful to current and prospective investors in any business. Investors can determine the prospect of the future financial performance of a business based on *BS* and *ACI*.

6. CONCLUSION

This study was done across the S&P CNX Nifty50 companies from a motley of sectors (excluding banking and financial services) to tell the degree of clout that CG parameters exert on EP, which included both accounting and market performance. The sample had 280 observations from 40 companies for the period FY2012–2013 to FY2018–2019. From the data analysis, it can be concluded that board parameters such as BS and ACI impacted the EP parameters. Other dependent variables like BM, BI, and OC are statistically insignificant. In the control variables, the financial leverage or the DE ratio is found to be significant with all the performance variables. It also noted that BS is negatively affiliated with the EP metrics, meaning, that the smaller the BS, the better the financial and market performance of the companies. This could be also said differently, that the more optimized the BS, the better the results. On expected lines, ACI positively related to the dependent variables. The significance of BS and ACI supports the results of previous studies (Saha & Kabra, 2019; Arora & Sharma, 2015). Contrary to findings in other studies (Arora & Bodhanwala, 2018; Palaniappan, 2017), BI was surprisingly found to be statistically insignificant. The summary of the hypothesis test, as per the hypothesis defined in the earlier section can be found in Table 8 above.

The objective of this research was to identify the most crucial board parameters which can help companies to figure out the way to improve their performance and increase their shareholders' value and stakeholders' perception value. Companies can generate more value for all their stakeholders by focusing on the said aspects and hence they can grow at a steady pace in the long run and return rewards to the shareholders.

The study also strived to bring a change by integrating the variable ROCE as a dependent variable. ROCE is included because it is considered a crucial measurement of profitability as it factors in the capital to generate profits (Maverick, 2019), and the quantum of capital employable for expansion and other exercises is determined after auditing and taking decisions from the board of the firm. Furthermore, the variable related to ownership was defined as the percentage of shareholding by majority shareholders (Ducassy & Guyot, 2017; Kao et al., 2019). Taking the percentage of promoters' shares in the shareholding pattern in this study the majority of the non-government enterprises in India are owned by individuals of a single family. Therefore, promoter holding would be a better representative to define the ownership pattern.

The study is restricted to some limitations, it did not include factors such as attendance of the board of directors in BM or annual general meetings, and the study period was limited to FY2018–2019. Further research can be done by including the gender diversity factor which can incorporate the number of female directors and other critical committees. Finally, this research is restricted to Indian companies, so, future studies may include other countries in the sub-continent as they have similar organizational cultures.

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