An Analysis of Corporate Governance of Central Public Sector Enterprises of India through Board Composition and Firm Performance

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ABSTRACT

The present article seeks to examine the relationship between board structure and corporate performance of Maharatna and Navratna status central public sector enterprises of India. Board structure comprises of three variables, namely, board size, board meeting and proportion of independent directors on the board. The study is carried out for a period of nine years from 2009-10 to 2017-18 and is purely based on secondary data which were collected from PROWESS database and annual reports of the concerned companies. The corporate performance has been measured by using ROA, ROCE and EBDITA. The study found a positive relationship among board size, board meeting and corporate performance but the board meeting has greater impact on the corporate performance in comparison to the board size. On the other hand, board independence has insignificant negative relationship with corporate performance. OLS model explains 40.2 per cent variation in dependent variable using ROCE as performance measure, while fixed effect model explains 77 per cent variation.

KEYWORDS

Corporate governance, Board size, Board independence, Board meeting, Performance

INTRODUCTION

In 1932, the theory of separation of ownership and control in the modern corporation by Berle & Means and further in 1976, the seminal paper of Jensen & Meckling on the principal-agent problem bought the attention of research world to the concept of Corporate Governance. Corporate Governance in a shareholder centric definition is defined as "the process of supervision and control intended to ensure that the company's management acts in accordance with the interests of shareholders" (Parkinson, 1993). It has been a widely debated issue in developed countries in the wake of high-profile corporate scandal of big giants like Enron, WorldCom in US, Bank of Credit and Commerce International, Maxwell group in UK, stressing the economic and social health of corporation and of an economy. The relevance of corporate governance lies in the corporate form of organisation where ownership and management are in different hands. Agency theory argues that executives or directors of a corporation may not be as prudent with shareholders' money (Letza, Sun, & Kirkbride, 2004). Hence, the board of directors especially the composition of board is viewed as one of several mechanisms that can mitigate the agency problem within the firm (Muth & Donaldson, 1998). Board composition includes board size, board independence, board meeting and CEO duality. Various corporate governance theories have supported the relationship between the board structure and financial performance of the firm in the theoretical framework for corporate governance. Agency theory and Resource Dependency theory favours large board size of an organisation. However, Stewardship theory signifies negative relationship between board size and corporate performance favouring small board size for effective management. Similarly, Agency theory is of the view that independent boards are effective in enforcing the separation of decision management and decision control and therefore has positive effect on corporate performance (Muth & Donaldson, 1998). Also, Resource Dependency theory is in the favour of appointment of outside directors on the board of an organisation because of their social and business links which help in enhancing corporate performance. On the other hand, Stewardship theory supports the domination of insiders on the firm's board because of their access to operating information, expertise and commitment to organisation (Muth & Donaldson, 1998). Corporate governance codes issued by various committees and commission have mandated the proportion of independent directors on the board of the corporate.

Corporate governance was triggered in emerging economy such as India, eventually after the adoption of economic reforms and corporate scandals in 1990s. Guidelines on corporate governance were issued along the lines as abroad. Initially, Confederation of Indian Industry (CII) issued voluntary code of corporate governance in 1998 and further mandated by SEBI by issuing Clause 49 of the Listing Agreement of the Stock Exchanges for listed companies. Department of Public Enterprises (DPEs) issued mandatory guidelines for corporate governance for all listed and non-listed public sector enterprises in 2010. Public Sector (administrative departments and public corporations) contribution to total GVA stood at 18.6 per cent in 2015-16 and total investment was ₹12,503,73 crores in 331 enterprises in 2017 (Hooda & Chhikara, 2018). In the emerging economy like India, the research work in this area is in its infant stage. Most of the previous studies in India were either based on public listed companies or sector-specific i.e. manufacturing sector (Arora & Sharma, 2016), (Narwal & Jindal, 2015) and insurance sector (Rana & Chhikara, 2018). The present article investigated the relationship between board structure and corporate performance for Maharatna and Navratna status central public sector enterprises for the financial years 2009-10 to 2017-18. The results of the study contribute to the existing literature on corporate board practices in the context of emerging economy.

LITERATURE REVIEW

Board size & firm performance

Board size is defined as the total number of directors' i.e. executive and non-executive directors on the board of the organisation. Board of directors acts as a representative of various stakeholders of the company (Kumar & Singh, 2013) and performs the function of advising and monitoring. An optimal composition of board should include the executive as well non-executive directors. The relationship between board structure and corporate performance is inconclusive. One approach of corporate governance views, small board size as an effective force to drive the performance of the firm. Studies suggest that when board size exceed an ideal value, the cost of having large directors on board outweighs the benefits in terms of poor coordination and communication which results in slow decision making (Jensen, 1993), low board cohesion (Lipton & Lorsch, 1992), problem of diffusion of information or social loafing (Dwivedi & Jain, 2005) and greater level of conflicts (Goodstein, Gautam, & Boekar, 1994). Several studies have reported inverse relationship between board size and firm value. For example, using accounting and market-based measures Guest (2009) found a negative relation between board size and corporate performance for 2476 UK firms. Garg (2007) identified the negative relation of board size with performance using a sample of 164 listed Indian companies and further suggested a board size limit to 6 as ideal one. Similarly, Lipton & Lorsch (1992) recommended the size of 8 or 9 directors and Jensen (1993) states the board size of 7 or 8 to be an optimal. The inverse relationship has been reported by Guest (2009), Huther (1997), Ujunwa (2013), Kathuria & Dash (1999) and Yermack (1996).

Another approach views, board of large size as effectual in enhancing the performance of the firm. Based on the sample of 340 large Indian firms, Dwivedi & Jain (2005) suggests a positive relation between board size and performance. The main advantage of large boards have been the increased pool of knowledge and information (Dalton, Daily, Johnson, & Ellstrand, 1999) (Dalton & Dalton, 2005) board specialisation and diversification, enhanced monitoring capacity and greater external links (Goodstein, Gautam, & Boekar, 1994). Other studies (Dalton, Daily, Johnson, & Ellstrand, 1999) (Kalsie & Shrivastav, 2016) (Chauhan & Pasricha, 2010) have found similar results.

Board Independence and firm performance

Board independence refers to percentage of the total number of independent non-executive directors to the total number of directors on board (Prabowo & Simpson, 2011; Zabria, Ahmad, & Wah, 2016). Appointment of Independent director on the board of company was part of various corporate governance guidelines issued in developed as well as in emerging countries for effective monitoring mechanism.

Boone, Field, Karpoff, & Raheja (2007) argued that large and diverse firm has independent board whereas board having substantial influence of managers has less independent board. Garg (2007) found evidence of the positive correlation of board independence and firm performance, in case the proportion of independent director lies between 50 per cent and 60 per cent. However, Rashid's (2018) study provides evidence for negative correlation, using 135 listed companies of Bangladesh. Merendino & Melville (2019) state that board independence enhanced firm performance when presence of independent directors is less than executive directors on the board. Some empirical studies have in China (Sami, Wang, & Zhou, 2011)), Taiwan (Wu, Lin, Lin, & Lai), Iran (Rostami, Rostami, & Kohansal, 2016), and in US (Pearce & Zahra, 1992) documented positive relationship between board independence and corporate performance. On the other hand, some studies have documented no relationship for example, in Malaysia (Zabria, Ahmad, & Wah, 2016) (Leng, 2004), in Tanzania (Assenga, Aly, & Hussainey, 2018), in India (Chauhan & Pasricha, 2010).

Board meeting and Firm performance

Vafeas (1999) & Rodriguez-Fernandez, Fernandez-Alonso, & Rodriguez-Rodriguez (2014) found evidences for the negative correlation of board meeting with the accounting measures of corporate

performance. However, Arora & Sharma (2016) state positive correlation of board meeting with performance using sample of 1922 manufacturing companies of India. Study by Velnampy (2013) states that high number of board meeting doesn't predict a better future accounting and market performance.

OBJECTIVE OF THE STUDY

The primary objective of the article is to empirically analyse the relationship between board structure and corporate performance with reference to selected Central Public Sector Enterprises of India. Though a number of empirical studies have been conducted in developed countries and a few in developing countries like India but their focus had been on public sector enterprises. Therefore, to bridge this gap the present study is attempted by selecting Maharatna and Navratna status public sector enterprises of India.

RESEARCH METHODOLOGY

Data: Data have been collected from secondary sources. The data for the variables of corporate governance were collected from the annual reports of the companies and financial data was obtained from PROWESS database.

Sample: The present study considers a sample of 24 Central Public Sector Enterprises having status of Maharatna and Navratna belonging to 10 industries for a period covering 9 years from 2009-10 to 2017-18. Final sample consists of 21 companies due to unavailability of data of three companies either of financial nature or related to the board structure resulted in to 189 final observations.

Model: The model of the study is represented by the following equation:

$$ROA_{it} = \beta_0 + \beta_1\ Board\ size_{it} + \beta_2\ Board\ independence_{it} + \beta_3\ Board\ meeting_{it} + \beta_4\ Firm\ age_{it} + \beta_5\ Firm\ size_{it} + \beta_6\ Leverage_{it} + \varepsilon_{it}$$

$$ROCE_{it} = \beta_0 + \beta_1\ Board\ size_{it} + \beta_2\ Board\ independence_{it} + \beta_3\ Board\ meeting_{it} + \beta_4\ Firm\ age_{it} + \beta_5\ Firm\ size_{it} + \beta_6\ Leverage_{it} + \varepsilon_{it}$$

$$EBDITA_{it} = \beta_0 + \beta_1\ Board\ size_{it} + \beta_2\ Board\ independence_{it} + \beta_3\ Board\ meeting_{it} + \beta_4\ Firm\ age_{it} + \beta_5\ Firm\ size_{it} + \beta_6\ Leverage_{it} + \varepsilon_{it}$$

Where,

ROA_{it} is return on assets, $ROCE_{it}$ is return on capital employed, $EBDITA_{IT}$ is earning per share; $Board\ size_{it}, Board\ independence_{it}, Board\ meeting_{it}$ are corporate governance variables, $Firm\ age_{it}\ Firm\ age_{it} and\ Leverage_{it}$ are control variables and ε_{it} is the error term.

Independent variables: In the present study, the key predictor variables are board size, board independence and board meeting. Board size refers to the total number of executive and non-executive directors along with government nominees on the board of the firm. Board independence means the proportion of non-executive independent directors excluding government nominee to the total number of directors on board. Whereas, board meeting are the number of board meetings held during a financial year.

Table 1

Board size

	2010		2011		2012		2013		2014		2015		2016		2017		2018	
	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%
upto 6 director	0	0	1	4.76	0	0	1	4.76	1	4.76	5	23.81	2	9.52	1	4.76	0	0
7-10 director	6	28.57	6	28.57	6	28.57	4	19.05	7	33.33	10	47.62	10	47.62	7	33.33	3	14.29
11-15 director	12	57.14	10	47.62	8	38.10	12	57.14	10	47.62	6	28.57	9	42.86	12	57.14	16	76.19
more than 15	3	14.29	4	19.05	7	33.33	4	19.05	3	14.29	0	0	0	0	1	4.76	2	9.52
Total	21		21		21		21		21		21		21		21		21	
Average	12.38		12.76		13.05		12.57		11.71		8.81		9.86		10.76		12.62	

Source: Researchers' calculations

Table 2

Board independence

	2010		2011		2012		2013		2014		2015		2016		2017		2018	
	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%
upto 33.3%	4	19.05	0	0	2	9.52	4	19.05	5	23.81	16	76.19	12	57.14	7	33.33	1	5
33.3 to 50%	15	71.43	19	90.48	14	66.67	14	66.67	13	61.90	5	23.81	9	42.86	13	61.90	14	66.67
50-60%	2	9.52	2	9.52	5	23.81	3	14.29	3	14.29	0	0	0	0	1	4.76	5	23.81
60-74%	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4.76
above 74%	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	21		21		21		21		21		21		21		21		21	
Average	0.41		0.46		0.47		0.42		0.4		0.2		0.28		0.35		0.47	

Source: Researchers' calculations

Table 3

Board Meeting

	2010		2011		2012		2013		2014		2015		2016		2017		2018	
	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%	No. of firm	%
upto 6 meeting	2	9.52	1	4.76	2	9.52	4	19.05	1	4.76	2	9.52	2	9.52	1	4.76	2	10
7-10 meeting	10	47.62	11	52.38	8	38.10	7	33.33	10	47.62	10	47.62	9	42.86	10	47.62	7	33.33
11-15 meeting	8	38.10	6	28.57	8	38.10	10	47.62	10	47.62	9	42.86	8	38.10	8	38.10	11	52.38
more than 15	1	4.76	3	14.29	3	14.29	0	0.00	0	0.00	0	0	2	10	2	9.52	1	4.76
Total	21		21		21		21		21		21		21		21		21	
Average	10.52		10.		11		9.8		10.		10.		10.		11.		11.	

		52			6	29	14	86	05	38	

Source: Researchers' calculations

Dependent variables: This study includes ROA, ROCE and EBDITA as the proxies of financial performance for the selected companies. Several previous studies used ROA (Kathuria & Dash, 1999; Sami, Wang, & Zhou, 2011; Müller, 2014; Velnampy, 2013), ROCE (Kalsie & Shrivastav, 2016; Bhatt & Bhatt, 2017; Firth, Lohne, Ropstad, & Sjo, 1996; Erhardt, Werbel, & Shrader, 2003) and EBDITA as performance measures of the firms.

Return on assets (ROA) is measured as company's earnings before depreciation, interest, tax and amortisation by total assets during the financial year.

Return on capital employed (ROCE) is an indicator of profitability and is calculated by dividing EBDITA by capital employed.

EBDITA is earnings before depreciation, interest, tax and amortisation and measure of operating performance of the company.

For the analysis purposes, three alternative measures of firm's performance which include ROA, EPS and RONW are being used. All these accounting measure are considered to be significant indicators of firm's performance and have also been used in previous studies like Arora and Sharma (2015), etc.

Control variables: Apart from its board structure, the corporate performance is influenced by other explanatory variables and to avoid any spurious relationship between board structure and corporate performance, it is customary in literature to control the effect of these explanatory variables.

Firm size as measured by log of total assets and natural logarithm of the variable is used to remove the high degree of skewness in the firm size (Kumar & Singh, 2013).

Firm age is measured by natural logarithm of the number of years from the incorporation year to observation year of the firm (Kumar & Singh, 2013).

Leverage is measured as ratio of long-term debt and summation of debt & equity, to control the variation in capital structure (Kumar & Singh, 2013).

These variables have also been used in various prior studies and are correlated with corporate performance (Boone, Field, Karpoff, & Raheja, 2007; Garg, 2007; Kumar & Singh, 2013; Mashayekhi & Bazazb, 2008).

Table 4

Variable definitions and measurement

Types of variables	Variable	Definitions and measurement
Dependent variables	ROCE	Return on capital employed, measured by firm's earnings before depreciation, interest, tax and amortization by its capital employed
	ROA	Return on asset, measured by firm's earnings before depreciation, interest, tax and amortization by its total assets
	EBDITA	Earnings before depreciation, interest, tax and amortization

Independent	Board size	number of director on the board of the firm
	Board independence	Proportion of Independent directors to total board members
	Board meeting	number of board meeting held during the financial year
Independent: Control	Firm age	Measured as natural logarithm of the number of years since the incorporation of a firm
	Firm size	Measured as natural logarithm of total assets
	Leverage	Measured as a ratio of long-term debt to total assets

ANALYSIS AND INTERPRETATION

Table 2
Descriptive Statistics

Variables	Minimum	Maximum	Mean	Std. Deviation
Board Size	4	19	11.78	3.273
Board Independence	0.0000	.6360	.387656	.1437526
Board Meeting	5	22	10.57	3.149
Firm Age	3.0445	4.2195	3.750705	.3138050
Firm Size	6.2240	14.2448	10.799515	2.2949768
Leverage	0.0000	.8478	.255661	.2283625
ROCE	-51.30	97.75	10.1118	17.37476
ROA	-19.41	73.79	6.7673	11.29829
EBDITA	-25665.70	593238.10	106975.07	123506.33

Source: Researchers' calculations

Table 2 depicts the descriptive statistics of all the research variables for 21 sampled firms for 9 years. Minimum, maximum, mean and standard deviation values for each variable have been presented. The mean score of board size of the sampled companies found to be 11.78 (i.e. 12 approximately) with minimum of 4 directors and maximum of 19 directors on the board. As per the Companies Act, 2013, there is a limit of minimum 3 directors and maximum 15 directors on the board of a public company. Of total sample, 47.92 per cent companies have more than 15 directors on their board for a year or for more than one financial year. Also, Department of Public Enterprises guidelines on Corporate Governance require government company in India to have at least 50 per cent Independent Director, if chairman of the board is an Executive Director, else two-third of the directors should be independent (Arora & Bodhanwala, 2018). The average proportion of Independent Directors on the board is 38.76 per cent, with minimum proportion of zero and maximum of 63.60 per cent. The minimum board meeting held during the period under study is 4 while the maximum goes up to 22, with the average number of 10.57 (11 approximately) meetings. The sampled companies fulfil the requirement of minimum 4 board meeting of Companies Act and DPE guidelines. EBDITA varies from a minimum value of - ₹25665.70 million to a maximum of ₹593238.10 million with an average of 106975.07 million. ROCE show variation with minimum and maximum value being -51.30 and 97.75 respectively with mean value of 10.11. ROA has a minimum value of -19.41 to a maximum value of 73.79 with mean of 6.77.

Table 3

Correlation Matrix

	Board Size	Board Independence	Board Meeting	Age	Size	Leverage	ROCE	ROA	EBDITA
Board Size	1								
Board Independence	.598** (.000)	1							
Board Meeting	.079 (.279)	.119 (.104)	1						
Firm Age	.323** (.000)	.041 (.578)	-.107 (.144)	1					
Firm Size	.273** (.000)	-.126 (.085)	.237** (.001)	.044 (.548)	1				
Leverage	-.450** (.000)	-.120 (.099)	.307** (.000)	-.321** (.000)	-.076 (.301)	1			
ROCE	.143* (.049)	.116 (.110)	.070 (.341)	.144* (.048)	-.332** (.000)	-.407** (.000)	1		
ROA	.076 (.298)	.113 (.123)	.113 (.122)	.054 (.463)	-.312** (.000)	-.354** (.000)	.964** (.000)	1	
EBDITA	.045 (.543)	-.034 (.643)	.383** (.000)	.132 (.071)	.281** (.000)	.216** (.003)	.130 (.076)	.106 (.147)	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Source: Researchers' calculations

Table 3 depicts the correlation of all variables used in the analysis at 5 per cent and 1 per cent level of significance respectively. Board size is insignificant and positively correlated with ROA and EBDITA; however, it is significantly correlated with ROCE. Proportion of Independent Directors is positively correlated with ROCE and ROA, however, negatively correlated with EBDITA. Similarly, board meeting is positively correlated with all the performance variables. The relationship of firm size with board size and board meeting is significant positive, implying that as the firm size increases the board size and board meeting also increases. Firm size and leverage are significantly and negatively correlated with performance variable such as ROCE and ROA but negatively related with EBDITA. Firm age is positively related with all performance variables.

Table 4

Impact of Board Structure on Financial Performance Using OLS Regression

	ROCE		ROA		EBDITA	
	Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
Constant	35.7055	0.0148	30.4324	0.0021	-486748.4	0.0000
Board Size	0.2529	0.6178	-0.2117	0.534	90.94906	0.982
Board Independence	-9.6383	0.3298	-1.1440	0.863	-23440.9	0.7659

Board Meeting						
	1.9609	0.0000	1.3807	0.000	11558.87	0.0001
Firm Age	1.0930	0.7554	-1.4986	0.5246	87130.08	0.0021
Firm Size	-3.6372	0.0000	-2.1093	0.000	11452.75	0.0054
Leverage						
	-40.6274	0.0000	-27.0765	0.000	113672.3	0.0095
R square	0.402		0.363		0.248	
Adjusted R^2	0.380		0.342		0.223	
F-value	20.369		17.255		10.010	
P-value	0.0000		0.0000		0.0000	

Source: Researchers' calculations

Table 4 provides a summary of the results of the estimation of regression, based on the OLS model for the dependent variable- ROCE, ROA and EBDITA respectively. Board size has positive coefficient in all the regression except in the case of ROA. This is consistent with the literature that board size positively affects corporate performance. It shows that board independence has negative relationship with corporate performance, although it is statistically insignificant. Result also show that EBDITA has significant positive relationship with performance.

The control variables like size and leverage has significant positive ROCE and ROA implies that increase in size and leverage of a firm would reduce corporate performance due to implicit cost. However, size and leverage have positive and significant relationship with EBDITA. The firm size is found to be positively related with ROCE and EBDITA. However, the relationship is not significant in case of ROCE and significant in case of EBDITA. The size of the firm is negatively related to ROA but is not significant.

The observed R square indicates that 40.2 per cent of variance in dependent variable is explained by the explanatory variables, when ROCE is used as dependent variable. Furthermore, R square is 36.3 and 24.8 per cent respectively when dependent variable is ROA and EBDITA. The P-value in the table indicates that the model is a good fit.

Table 5

Impact of Board Structure on Financial Performance Using Fixed Effect Model

	ROCE		ROA		EBDITA	
	Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
Constant	15.91129	0.6953	13.7877	0.593	-1075571	0.0000
Board Size	0.005807	0.9902	-0.0883	0.7688	444.5966	0.832
Board Independence						
	-2.832598	0.7147	-0.4267	0.9309	-19528.89	0.5694
Board Meeting						
	0.300088	0.3278	0.1724	0.3759	-2042.219	0.1335
Age	7.928317	0.5539	-3.5675	0.6747	326766.5	0.0000
Size	-3.42044	0.1415	0.6335	0.667	289.4923	0.9775
Leverage	-2.893953	0.7523	-4.2934	0.4612	-87085.46	0.0332
R square	0.77		0.7836		0.9118	

Adjusted R^2	0.736		0.7488		0.8977	
F-value	21.21		22.56		64.45	
P-value	0.0000		0.0000		0.0000	

Source: Researchers' calculations

Fixed Effect Model was found appropriate for the analysis according to the Hausman test and the results of the model that the impacts of board structure on the corporate performance are reported in Table 5. The results show the statistically insignificant positive relationship between board size and corporate performance as measured by ROCE and EBDITA. However, negative relation between ROA and board size. Board independence has negative and insignificant relation with operating performance of firm. Results revealed a positive relationship of board meeting with ROA and ROCE, while negative relation with EBDITA. The leverage has negative relation with all the corporate performance variables, although it is statistically insignificant. Other control variables like age and size have negative relation with ROA and ROCE respectively.

Fixed effect model control the effect of time-invariant characteristics of the sampled firms to assess the net effect of the predictors on dependent variable (Yigitcanlar & Kamruzzaman, 2018). The strength of the model reported in the table is high, as measured by R square and adjusted R square indicating the substantial impact of predictor variables on the dependent variable. When the dependent variable is EBDITA, 91.2 per cent variation in outcome variable is explained by the explanatory variables. Similarly, when ROCE and ROA is used as dependent variable, explanatory variable explains the 77 per cent and 78.4 per cent variation in the dependent variable respectively.

CONCLUSION

The study explores the relationship of board structure with corporate performance for a sample of firms having Maharatna and Navratna status in India by using different measures of performance. Empirical results of the study found positive but insignificant relationship between board size and performance with OLS and fixed effect model which implies that increase in board size leads to higher firm performance. The results of the study are in consistence with the findings of the previous studies on the board size and financial performance relationship (Chauhan & Pasricha, 2010; Kalsie & Shrivastav, 2016; Dalton, Daily, Johnson, & Ellstrand, 1999; Dwivedi & Jain, 20050). On the other hand, the board independence has negative relationship with performance but its impact was not significant in both models (Rashid, 2018). Being government companies, the appointment of independent directors on board is made by Government of India and due to administrative or some other reasons, the government could not make it to provide the sufficient number of directors on companies' boards making board independence concept ineffective in context of public sector enterprises. It was further found that the board meeting has positive and significant relationship with all performance measures (ROA, ROCE and EBDITA) (Arora & Sharma, 2016) in OLS model but positively related with ROCE and ROA, although negatively related with EBDITA in fixed effect model (Rodriguez-Fernandez, Fernandez-Alonso, & Rodriguez-Rodriguez, 2014). The study found a positive correlation between board size and firm size implying that large board size is required by large firm to meet its multiple needs. Also, board meeting was positively correlated with firm's age. The findings of the study support the agency theory and resource dependency theory which believes that large board with diverse knowledge and expertise would improve firm's performance by providing better monitoring capacity.

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