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*Research Article*

# Independent Boards and their impact on the performance of Automobile Industry

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## Abstract:

The present study aims to study the impact of the independent directors on board on the financial performance of the companies listed in the BSE 500 index. The study mainly intends to study the relationship between board independence and firm financial performance in the automobile sector for the time range between 2017-2023. The data set comprises of top 15 company listed in BSE 500, selected on the basis of market capitalization. The research uses the panel data methodology to analyze the result using the STATA software. The findings indicate significant positive relation between the independent directors on the board and the performance of firms. It highlights importance of independent directors among the board of directors as they bring in enhance fairness and transparency.

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## 1. Introduction:

In today's competitive era, Corporate Governance has emerged as a major determinant of firm financial performance. Corporate boards play a crucial role in supervising management and aligning the shareholders motive with management (Rose, 2005). Board Independence is considered one of the major governance factors for effective management and strategic planning. Company's board formation has a significant linear effect on long-term success of the organization, promoting interest of the shareholders, and fostering sustainable growth. The segregation of Ownership and Control is one of the basic cause of issues arising in Corporate Governance. The board of directors helps prevent the management or shareholders from taking such advantage (Sarkar, 2009). "The listing agreement of SEBI under clause 49, defines independent directors as follows: For this clause the expression 'independent directors' means directors who apart from receiving director's remuneration, do not have any other material pecuniary relationship or transactions with the company,

its promoters, its management or its subsidiaries, which in the judgment of the board may affect the independence of judgment of the directors." The presence of independent directors on the board brings transparency, reduces agency conflicts, and ensures the company's goal aligns with the shareholder's interests. In the context of the automobile industry, board independence holds particular significance due to the sector's complex and capital-intensive nature. Automobile companies face unique challenges, including high R&D expenditures, volatile market demands, stringent regulatory requirements, and intense global competition. These factors necessitate robust governance structures to ensure strategic agility and long-term value creation. Independent directors can provide critical oversight by evaluating management decisions objectively, ensuring compliance with environmental and safety standards, and mitigating risks associated with technological advancements and market disruptions.

Despite the intuitive appeal of board independence, empirical findings on its relationship with firm performance remain inconclusive. In the automobile industry, the effectiveness of board independence may vary depending on factors such as a firm's market position, geographic scope, and ability to adapt to technological innovations like electric vehicles and autonomous driving. While some studies report a positive correlation, suggesting that independent boards improve financial outcomes and governance quality, others highlight contextual factors that may diminish or even reverse its impact.

This research aims to add to the current debate by analysing the relationship between board independence and firm performance. Specifically, it explores how board independence influences the financial and operational outcomes in the automobile sector. The study aims to provide an in-depth understanding of the crucial role that board independence plays in corporate governance and policy decisions. Rest of the paper is organized as follows. The second section describes the literature review of the various papers. The third section explains in detail the data and the variables for the study followed by the empirical model used in the study. The fourth section focuses on the result and the analysis of the study. Lastly, the fifth section concludes the research.

## **2. Literature Review and Hypothesis Development:**

Securities and Exchange Board of India (SEBI) in the year 2000, required each and every major publicly traded firms in India should have a prescribed number of board independent directors. Ever since, continuous modification done by SEBI have reinforced the need of board independent director as a prerequisite for better corporate governance. Additionally, "Clause 49 of the listing agreement" states that if the board chairman is not an executive director, then firm must have atleast one-third independent directors and should have half of the independent directors if the chairman of the board is an executive director. Independent Directors or Non-Executive Directors are those who do not have any familial connection or business relation with promoters, which makes them immune to any conflict of interests with the corporation (Borowski, 1983; Brudney, 1982). They are neither the company's employees nor any outsider having financial relationship with the business such as bankers and lawyers, and also, they do not have any family ties with the management or shareholders (Dalton et al., 1998). Companies Act, 2013, explains the eligibility criterion of an Independent Director, and the Schedule IV, Section 149 (8) of the Companies Act, 2013, outlines codes of conduct for the Independent Director. Furthermore, the Act holds Independent Director accountable for 'any act of commission or omission by a company that occurred with their knowledge, and is attributable to the Board processes, and with his permission or collaboration or where he had failed to act with diligence'. Additionally, the Act further requires the Independent Directors to be involved in the nomination and remuneration committees.

There are numerous researches conducted around the world on the various corporate governance variables and

its relation to firm financial performance. As the research is narrowed down to Board Independence and Firm financial Performance in India, it becomes evident that the research is quite dispersed and no concrete evidence has been laid down. The study on the relation between board independence and firm performance showed varied results which is either positive, negative or no relationship with firm performance. In India, it is asserted that in non-family firms, board independence has a positive effect on the performance of the firms (Leung, Richardson and Jaggi, 2013). Sharma (2011) further stated that there is a positive linkage among the independent directors on the board and firm's propensity to pay dividends. Similarly, Terjesen et al. (2016) claimed that in the gender diversified boards company performs better if independent directors are present. The research conducted by Arora & Bodhanwala (2018) in India, stated that firm performance of a company is improved if there is a moderate representation of Independent Directors. Jackling and Juhl (2009) further asserted that in large Indian firms, the increase in outside directors had resulted in higher value of Tobin's Q. Chakrabarti et al. (2010) conducted an event study and concluded that independent directors enhance the market value of the developing economy and monitoring and advisory roles are its major determinant. Mohapatra (2016) in his study also affirmed independent directors to have positive effect on the value of Tobin's Q.

However, there are studies which indicates a negative association among the financial performance of the firm and independent directors on the board. Mishra (2023) through his study revealed no correlation between the independent directors and firm performance as the independent directors are not able to work independently without any interference. The research conducted on companies listed on the New Zealand Stock Exchange within the time frame of 2007-2011, showed negative association between the independent directors on board and the firm performance (Fauzi and Locke, 2012). Similarly, Prabowo and Simpson (2011) and Bhagat & Bolton (2008) in their study found that there is no link between the independent directors and firm performance. Accordingly, in Indian study it was evident that board independence does not assure better performance because of ineffective role of independent directors (Garg, 2007). Likewise, Ghosh (2003) revealed that there is a threshold level, after which the firm performance starts diminishing and as such stated that there isn't any linear relationship between independent directors and firm financial performance. By going through the studies of different researchers, it was observed that the research has yielded varied results. These inconsistencies in the previous research underscores the need for further investigation.

Based on the existing literature and following arguments, this research proposes the following given hypothesis:

H<sub>1</sub>: There is a significant relation between the Independent Directors on board and firm financial performance.

### 3. Research Methodology:

#### 3.1 Sample-

The sample includes data from the automobile sector, listed in BSE 500, automobile firms listed in the BSE 500, for the period 2017–2023. The concept of Independent Director has been officially implemented in India following the Companies Act 2013, which became one of the prominent reason for the selection of this time frame. The data of automobile companies has been

selected on the basis of market capitalisation from the BSE 500 index, with a sample of 15 companies. The exclusion of those firms has been made which were newly established and those which have incomplete information. The financial data in our sample has been extracted from CMIE Prowess IQ Database and the corporate governance variables has been extracted manually from annual reports of the company and corporate governance reports.

#### 3.2 Variables-

**Table 1:** List of the Variables and their Formulation.

Variables	Formulation
Tobin's Q	Market value/Total Assets
Return on Assets	Net Income/Average Total Assets
Board Size	It is the total number of directors in the firm in a year
Board Meeting	It is the total number of meetings of board in a year
Board Independence	It is the number of independent directors in a board
Percentage of Women directors	(Number of women directors/total number of directors) *100

**Source:** Author's own calculations

#### 3.3 Data Analysis-

The data in our study has been analysed through Panel Data Method so as to remove unobservable heterogeneity which might be present in our sample. The earlier studies in the corporate governance literature have identified the problem of endogeneity (Bhagat & Bolton, 2008). The endogeneity biases which are present in the analysis can be reduced by using estimation techniques, such as the Instrumental Variables or the Random Effects (RE) Model and the Fixed Effects (FE) Model (Arora, 2022; Arvanitis et al., 2022). The Hausman test is employed to overcome the problem of

endogeneity (Hausman & Taylor, 1981) and it is a tool to find out whether the Fixed Effects (FE) Model or Random Effects (RE) Model is more appropriate for the data. Stata software is used to analyse the result to achieve our objective.

#### 4. Result and Findings:

Table 2 presents the descriptive statistics of all dependent, independent and control variables i.e., the mean, median, maximum value, minimum value and standard deviation.

**Table 2:** Descriptive statistics of the variables-

Variable	Observation	Mean	Std. Dev.	Min	Max
Company ID	77	6	3.183014	1	11
Company Name	0				
Year	77	2020	2.013115	2017	2023
Tobin's Q	77	2.762098	1.913486	0.6229161	12.81503
ROA	77	8.762468	8.276436	-8.49	30.95
BS	76	9.894737	2.807509	4	16
BI	76	5.421053	1.768338	2	9
BM	76	6.368421	1.539169	4	11
Percentage of Women	76	2.639736	0.44191	1.832582	3.505557

**Source:** Author's own calculation.

The dataset in the table ranges from 2017 to 2023 with 2020 as the average year. The ROA ranges between -8.49 to 30.95 indicating significant variation in the efficiency of the company. The average board size is of 9 members and the average independent directors in a board is 5

which appears to be moderate. The female representation of women is average with normalized percentage of 2.64. Significant variation can be seen in the value of Tobin's Q indicating variability in the valuation of firms.

**Table 3:** Multicollinearity Test-

Variable	BI	BS	BM	ROA	Percentage of women	Mean VIF
VIF	2.01	1.97	1.20	1.15	1.59	1.58
1/VIF	0.498558	0.506726	0.835305	0.869451	0.630109	

**Source:** Author's own calculation

Multicollinearity was calculated to enhance the robustness of the model. To check the extent of

multicollinearity, VIF was computed for each of the independent variable. If the value of VIF is greater than

10, it indicates high VIF and it is problematic and as such the variables may need to be removed or addressed. The value of VIF ranges from 1.15 to 2.01 and the tolerance level ranges from 0.498 to 0.869, indicating that there is

no multicollinearity in the model. Therefore, the credibility of the variables is confirmed for further analysis.

**Table 4: Hausman Test Analysis-**

$$H_0: \text{Difference in coefficients not systematic}$$

$$\chi^2(5) = 7.19$$

$$\text{Prob.} > \chi^2 = 0.2070$$

Source: Author's own calculation

Table 4 presents result of the Hausman Test. The Hausman Test was performed to assess whether Fixed Effect Model or the Random Effect Model is more appropriate for our data. Null Hypothesis ( $H_0$ ) indicates that Random Effect Model is most suitable for the data, stating that there is no impact of independent directors of the board on the financial performance of the company. Alternatively, the Alternate Hypothesis ( $H_1$ ) indicates that Fixed Effect Model is more appropriate for the data, signifying that the independent directors on the

board impacts the financial performance of the company. The Hausman test results yield a p-value of 0.2070, which is above the significance level of 0.05, implying that the result fails to reject the Null Hypothesis, and as such the Random Effect Model is more appropriate for our data. As a result, the Random Effect Model has been used in our data to analyse and interpret the impact of independent directors in the board on the financial performance of the companies.

**Table 5: Random Effect Model Result-**

Variables	ROA	BS	BM	Percentage of women	BI
Values	0.157 (.0199)	-0.166 (0.077)	-0.009 (0.110)	0.037 (0.440)	-0.188 (0.124)

F value	16.97
Prob. > F	0.000
R <sup>2</sup>	0.5479
Adj. R <sup>2</sup>	0.5156

Source: Author's own calculation

Table presents result of Panel Data Regression Analysis conducted through Random Effect Model, to study the impact of independent directors on board on the financial performance of firms. F-value of 16.97 is high, which indicates that the predictors in our model have strong explanatory power. The corresponding p-value (Prob > F = 0.000) shows this result is statistically significant, thus the model is valid. The R<sup>2</sup> value of 0.5479 (or 54.79%) means that the predictors included in the model accounts for 54.79% of variability in the dependent variable. The remaining variability of 45.21% is due to other factors not included in model or random noise. The Adjusted R<sup>2</sup> is slightly lower than R<sup>2</sup> (0.5156 vs. 0.5479), meaning that the predictors still explain a substantial portion of the variation, even after accounting for the number of predictors. Hence, the model is overall significant and accordingly,  $H_1$  is accepted.

## 5. Conclusion and Recommendations:

The objective of the study is to find evidence regarding the effect of independent directors in board on the financial performance of automobile companies listed in Bombay Stock Exchange for the period ending 2017-2023. The result shows that board independence, being a major component of corporate governance, has a

positive effect on the financial performance of companies. The outcome suggests that while having an adequate number of independent directors is an essential criterion for governance credibility, the direct impact on firm performance is firm-specific or industry specific. It has been observed that the addition of independent directors on boards adds up to the market value of firm and also increases the goodwill of firm in the market. The study not only contributes to the body of literature on corporate governance but also provides valuable insights for firms, investors, researchers and policy makers.

Further studies can be undertaken by increasing the sample size of the companies or by conducting comparative analysis across the industries. Additionally, future studies can also be conducted between the corporate governance variables and performance of the firms by incorporating the moderating or mediating effect to provide valuable insights.

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