

Engaged Boards, Better Firms: The Impact of Director Attendance on Performance

Anjali Chandra¹

Abstract :

This study has explores the relationship between board attendance and firm performance, emphasizing the role of active and consistent participation in board meetings. Drawing on agency and stewardship theory, the research examines how directors' attendance impacts key financial and operational metrics. By analyzing data from a sample of 5215 publicly listed firms from 2005-20 to 2021-22 the findings suggest that higher board attendance rates are positively associated with improved firm performance, as measured by Tobin's Q by using dynamic panel model. The study highlights the significance of board engagement as a governance mechanism, demonstrating that diligent oversight contributes to strategic decision-making and value creation. Practical implications for board composition and policies to enhance attendance are discussed, offering insights for both scholars and practitioners in corporate governance.

Keynotes: Board attendance, Agency Theory, Tobin's Q

¹ Assistant Professor, Satyawati College, Delhi University, Email- anjali.chandra1607@gmail.com



Corporate governance has long been acknowledged as an important aspect in guaranteeing a firm's success and sustainability. The board of directors is crucial to corporate governance, as it monitors and advises management. The effectiveness of a board is frequently measured using a variety of indicators, including the frequency and attendance of board meetings. Academic research has focused on board meeting attendance as a potential indicator of board diligence and participation, which could then influence firm success. This literature review investigates the relationship between board meeting attendance and business performance, drawing on a variety of theoretical viewpoints and empirical investigations.

Theoretical Frameworks

Agency Theory serves as a fundamental lens through which the relationship between board meeting attendance and firm performance is analyzed. According to agency theory, the separation of ownership and control in firms creates an inherent conflict of interest between shareholders (principals) and management (agents). Boards of directors are tasked with mitigating these conflicts by overseeing management's actions. High attendance at board meetings is perceived as a sign of active monitoring, which could reduce agency costs and improve firm performance.

Resource Dependence Theory provides an alternate viewpoint, arguing that board members supply essential resources such as experience, networks, and access to finance that are required for firm performance. Regular attendance at board meetings ensures that these resources are properly utilized. Directors who attend meetings on a regular basis are more likely to be engaged and participate meaningfully to strategic discussions, ultimately improving firm performance. Monitoring may also minimize agency costs and increase business performance.

In contrast to agency theory, stewardship theory proposes that directors act as stewards of the corporation, driven by a desire for long-term organizational success rather than personal benefit. Attendance at board meetings, according to this perspective, indicates directors' devotion towards their fiduciary duties, which leads to better decision-making and, as a result, higher firm performance.



Empirical Evidence on Board Meeting Attendance and Firm Performance

Numerous empirical studies examined the impact of board meeting attendance on firm performance, with mixed results. Some research have established positive association between conscientious boards and better firm outcomes.

For example, Adams and Ferreira (2009) discovered that higher attendance rates were connected with improved firm performance, particularly in enterprises where board oversight is crucial. Their research found that boards with regular meetings and high participation are better able to supervise management and provide strategic direction.

Similarly, Klein (2002) found that organizations with more conscientious boards, as assessed by attendance rates, had superior financial success. The study concluded that regular attendance allows directors to stay upto date on the firm's operations and industry developments, allowing them to make better judgments. This study adds weight to the view that active participation in board meetings is critical for effective governance.

In contrast, several research produced mixed or insignificant findings. Vafeas (1999), for example, discovered that, while the frequency of board meetings was frequently positively associated to company performance, the influence of attendance was not always clear. The study concluded that simply attending meetings does not ensure effective governance; both the level of participation and the substantive content of meetings are equally important criteria.

Furthermore, Brick and Chidambaran (2010) investigated the potential that the relationship between board meeting attendance and firm success is dependent on other characteristics, such as the firm's industry or size. Their research suggested that in some circumstances, the benefits of high board meeting attendance may be restricted, particularly in businesses where external monitoring systems, such as market rivalry or regulatory scrutiny, play a larger role.

Apart from attendance, the quality of board meetings has been highlighted as an important component in assessing their impact on business success. Larcker et al. (2007) suggested that the efficacy of board meetings is determined not just by attendance rates, but also by the quality of discussions and decision-making processes that take place during meetings. The



study concluded that boards that engage in notable interactions and criticize management decisions are more likely to improve firm performance.

Fich and Shivdasani (2006) expanded on this point by investigating the role of board meeting agendas and the participation of independent directors. Their research revealed that boards that focus on strategic issues and have independent directors actively involved in discussions perform better. This implies that attendance is necessary but not sufficient for good governance; the nature of board involvement is also significant.

Negative Impacts of Board Meeting Attendance

While the bulk of studies focus on the benefits of attending board meetings, some have identified potential drawbacks. Ferris et al. (2003) investigated the concept of "overboarding," in which directors serve on many boards and may be overworked. The study discovered that directors with numerous board obligations may attend meetings but be less effective due to competing priorities and time restrictions. This could have a negative impact on firm performance, especially if the director's attendance is purely symbolic.

Furthermore, Yermack (2004) expressed concern about the possibility of "rubber-stamping" during board meetings, in which directors attend but fail to critically evaluate management recommendations. According to the study, high attendance does not always imply active engagement, and in certain circumstances, it may indicate complacency among directors. This conclusion emphasizes the necessity of taking into account both attendance and the form of engagement when judging board effectiveness.

External Factors Influencing the Relationship

External factors like the regulatory environment and cultural norms influence the association between board meeting attendance and firm performance. Ghosh and Sirmans (2005) investigated how regulatory changes, such as the implementation of the Sarbanes-Oxley Act in the United States, influenced board meeting attendance and its impact on corporate performance. The study discovered that increasing regulatory monitoring resulted in better attendance rates, which were connected with enhanced corporate performance. However, the study also found that the success of these meetings was dependent on the directors' capacity to adapt to the new legal context.Cultural influences may also play a role as suggested by Joh



and Kim (2007) on how cultural norms influence board meeting participation in Asian enterprises. Their findings revealed that while high attendance rates were common in cultures that had strong hierarchical structures, but they did not always correlate with improved firm performance. The study concluded that in such cases, directors' attendance at meetings may be more of a formality, with actual decision-making taking place outside the boardroom.

The empirical evidence on board meeting participation and achievement in business is complex. While high attendance rates are generally linked to better business outcomes, the effect varies depending on meeting quality, industry, and external circumstances. Based on this understanding, we suggest the following hypothesis:

Ho: High board attendance leads to better firm performance.

This idea is consistent with agency theory, implying that high attendance at board meetings is interpreted as a sign of active monitoring, potentially lowering agency costs and improving business performance.

Data sources

The author had selected the non-financial and non-manufacturing companies of the National Stock Exchange (NSE) which have turnover of Rs 200 crore annually. The data spans over 5215 companies from 2005-06 to 2021-22. In this study, the author had taken the data set related from Prowess database and India Board Data from PRIME database. Further, number of companies covered as per NSE classification of economic sectors is given in table 1.

Table 1: Number of companies covered	as per NSE
classification	
	No of
Economic Sector	Companies
Commodities	810
Consumer Discretionary	1183
Energy	216



Total	5215
Diversified	139
Utilities	161
Telecommunication	113
Services	189
Information Technology	377
Industrials	898
Healthcare	603
Financial Services	0
Fast Moving ConsumerGoods	526

The table 1 shows the distribution of companies across various economic sectors, with a total of 5,215 companies. The Consumer Discretionary sector has the highest representation with 1,183 companies, followed by Industrials with 898 companies and Commodities with 810 companies. Healthcare and Fast Moving Consumer Goods (FMCG) sectors also have significant representation with 603 and 526 companies, respectively. In contrast, sectors like Telecommunication, Utilities, and Diversified have fewer companies, with 113, 161, and 139 companies, respectively. Notably, there are no companies listed under Financial Services. This distribution highlights the varying levels of sectoral representation in the sample, which could influence the analysis depending on sector-specific dynamics.



Summary Statistics

	Obs	Mean	Std.	Min	Max
			Dev.		
Tobin Q	5,043	2.21	3.02	0.02	69.62
Board Meeting Attendance	2,790	0.84	0.12	0.15	1.00
Ratio					
Board Size	5,215	9.29	2.59	1.00	22.00
Share of Promoters	4,986	56.14	16.56	0.00	99.59
Profit (=(PBIT)/TOTAL	5,043	0.13	0.10	-2.33	1.46
ASSETS)					
LEV (=Total Debt/Total Asset	4,703	0.25	0.37	0.00	14.13
Ratio)					
Natural logarithm of Total	5,043	10.71	1.57	5.95	16.54
Assets					

Table 2 : Descriptive Statistics

Source: Obtained by Authors

The table 2 provides key descriptive statistics for various variables in the research dataset, shedding light on the financial and structural characteristics of the sampled firms. Notably, Tobin's Q, a measure of firm value, exhibits a mean of 2.21 with considerable variability (Std. Dev. of 3.02), spanning from 0.02 to 69.62. Return on Total Assets shows a mean of 8.04%, but with substantial dispersion (Std. Dev. of 8.97), ranging from -121.07% to 77.15%. Board Size averages 9.29 members, with a moderate Std. Dev. of 2.59, and ranges from 1 to 22. The Board Meeting Attendance Ratio, based on 2,790 observations, has a mean of 0.84, indicating that on average, board members attend 84% of meetings. The relatively lower standard deviation of 0.12 shows more consistency in attendance, with a range from 0.15 to 1.00, indicating that while some boards exhibit full attendance, others have significant absenteeism.

Additionally, variables such as the share of promoters, profit, LEV (Total Debt/Total Asset Ratio), and natural logarithm of total assets provide insights into ownership structure, financial performance, leverage, firm size, and return volatility. These statistics serve as



foundational insights for further quantitative analysis in the research paper, providing a comprehensive overview of the dataset's characteristics.

	Tobin Q	Return on Total Assets	Board Attendance	Independent Director Ratio	LEV	profit	size
Tobin Q	1						
Return on							
Total Assets	0.2342	1					
Board							
Attendance	0.1339	0.0958	1				
Independent							
Director							
Ratio	0.0149	0.0641	0.1637	1			
LEV	-0.0696	-0.5678	-0.0087	-0.0043	1		
profit	0.2708	0.804	0.0558	0.0523	-0.3341	1	
size	-0.3085	-0.1469	-0.0448	-0.1672	0.0785	-0.1567	1

Table 3 : Correlation Matrix

Sources: Obtained by Authors

The correlation matrix presented in table 3 offers valuable insights into the relationships between key variables in the research dataset. Tobin's Q, which measures firm performance, shows a positive correlation with both ROA (0.2342) and board attendance (0.1339), indicating that higher profitability and better board engagement are associated with improved firm value. However, the correlation with board attendance, while positive, is relatively weak, suggesting that while attendance is important, other factors may have a stronger influence on firm performance.

Notably, Tobin's Q is negatively correlated with leverage (-0.0696) and firm size (-0.3085), implying that firms with higher debt levels or larger sizes tend to have lower market valuations. Additionally, ROA has a strong positive correlation with profit (0.804), reinforcing the link between profitability and asset efficiency, while leverage is negatively correlated with both ROA (-0.5678) and profit (-0.3341), highlighting the detrimental impact of high debt on a firm's financial health.



The table 4 categorizes board attendance from less than 60% to more than 95% and examines the average Tobin's Q for each category. It reveals that higher board attendance correlates with improved firm performance, as indicated by higher mean Tobin's Q values.

				sqrt			
Attendance	Obs	Tobin Q	Std.	(obs)	SE	UL	LL
less than							
60%	110	2.100709	2.442357	10.48809	0.23287	2.333579	1.867839
60-70%	195	2.140591	2.757827	13.96424	0.197492	2.338083	1.943099
70-80%	451	2.286401	3.109684	21.23676	0.146429	2.43283	2.139972
80-85%	427	2.318461	2.776408	20.66398	0.13436	2.452821	2.184101
85-90%	540	3.053343	4.938764	23.2379	0.212531	3.265874	2.840812
90-95%	463	2.840094	3.134214	21.51743	0.145659	2.985753	2.694435
more than							
95%	483	3.512096	3.836988	21.97726	0.174589	3.686685	3.337507

 Table 4 : Attendance and firm performance





Table 4 & Fig 1, which examining attendance and firm performance, reveal that Tobin's Q, a measure of firm value, varies with different levels of board meeting attendance. For attendance rates below 60%, Tobin's Q is relatively low at 2.10, with a high standard deviation indicating considerable variability in firm performance. As attendance improves, Tobin's Q increases steadily, reaching 2.32 for the 80-85% attendance range and further rising to 3.05 for the 85-90% range. The highest Tobin's Q is observed for attendance rates exceeding 95%, with a mean of 3.51, suggesting that very high board engagement is associated with significantly better firm performance.

The confidence intervals (UL and LL) indicate the range within which the true mean Tobin's Q is expected to lie, showing that higher attendance rates are consistently linked with higher performance metrics. This trend underscores the positive impact of increased board participation on firm value, with the most pronounced benefits observed at very high levels of attendance. The data supports the notion that more engaged boards, reflected in higher attendance rates, contribute to enhanced firm performance, highlighting the importance of board engagement in achieving superior market valuations.

But it is important to take into account the effect of board size on board meeting attendance. Their relation is shown in fig.2





This pattern suggests that while moderate board sizes are associated with higher attendance, very large boards may face challenges in maintaining high levels of engagement. Therefore, inclusion of board size as a controlling variable in the analysis of board attendance and firm performance is essential due to its potential impact on both governance quality and decision-making dynamics. Larger boards may provide a broader range of expertise and perspectives, which can enhance oversight and strategic guidance. However, larger boards may also suffer from coordination difficulties, slower decision-making, and diluted accountability, potentially diminishing the effectiveness of board engagement, even when attendance is high.

To delve deeper into the impact of board attendance on firm performance, we apply robust econometric methods. Recognizing the potential biases inherent in pooled ordinary least squares (POLS) and fixed effects (FE) regressions, especially when lagged dependent variables are used as regressors, we acknowledge that these models may not provide completely unbiased estimates. However, both POLS and FE remain valuable as benchmark models for comparison. As Bond (2002) points out, the autoregressive coefficient tends to be upwardly biased in POLS models and downwardly biased in FE models. Therefore, the true autoregressive coefficient is expected to lie between the POLS and FE estimates.

Despite the biases present in POLS and FE, these estimations still offer useful insights. They allow us to identify general trends and provide a range for the autoregressive coefficient, facilitating more accurate interpretations of the relationship between board attendance and firm performance. The combination of these methods helps ensure a more nuanced understanding of how board engagement, through attendance, influences the firm's value. This underscores the importance of considering the biases in traditional econometric models while recognizing their role in forming a baseline for more sophisticated dynamic panel models.

Model Specification

For estimating the relationship between board room attendance and rate of return, we use the following regression model;

$$y_{it} = \alpha_i + \rho y_{i,t-1} + \beta$$
 Attend_{it} + $\alpha_i z_{it} + \varepsilon$ (1)



Where,

 y_{it} = rate of return, measured by Tobin Q for ith company in time period t.

Details of Independent variables are as follow;

Attend is board room attendance

z variable includes all control variables. For this article, we include following control variable

- Independent Director as % of Board Size (up to lag order=2)
- Board Size, and
- Time Variable

Regression models have been estimated by using the dynamic panel data methodology (DPM). DPM extends conventional panel data models by integrating lagged values of the dependent variable, facilitating a nuanced comprehension of how current states are influenced by past data. However, this incorporation introduces dynamic endogeneity, posing challenges to ordinary least squares (OLS) and fixed effects (FE) estimators due to violations in assumptions. While prior estimators like pooled ordinary least squares (POLS) and FE regressions offer valuable insights, they are susceptible to biases. To tackle these challenges, Arellano and Bond (1991) introduced a difference generalized method of moments (GMM) estimator, which was subsequently refined into the system GMM estimator by later researchers. This methodology employs lagged values as instruments to mitigate endogeneity, thereby enhancing the efficiency of dynamic panel model estimation. Roodman (2009) suggested AR (2) and Sargan tests to check the validity of the results and hence, these are applied in this study.

Empirical Result

As previously explained, estimators from the Pooled OLS and Fixed Effects models provide essential validation checks, given that the autoregressive coefficient is typically upwardly biased in Pooled OLS (POLS) and downwardly biased in Fixed Effects (FE) models, as highlighted by Bond (2002). Consequently, a consistent estimate of the autoregressive coefficient should fall between these biased estimates. We first obtained results using both the Pooled OLS and Fixed Effects regression models. The first two columns of Table 5 display



these findings, where the POLS estimate of the autoregressive coefficient is 0.895, and the FE estimate is 0.348. Therefore, the consistent estimator is expected to lie between 0.895 and 0.348.

The table 5 presents the estimated results from three different regression models: Pooled OLS (Pooled), Fixed Effects (FE), and the Dynamic Panel Model (DPM), focusing on the dependent variable Tobin Q.

Table 5: Result from Estimated Models						
	(1)	(2)	(3)			
VARIABLES	Pooled	fe	DPM			
L.tobin_q	0.895***	0.348***	0.393***			
	(0.0127)	(0.0217)	(0.146)			
ratio_attend_total	1.043***	1.059**	31.95***			
	(0.402)	(0.426)	(12.24)			
board_size	-0.0312*	0.0340	-6.014***			
	(0.0174)	(0.0316)	(1.571)			
Indep_director_ratio	0.188	-0.277	88.19**			
	(0.517)	(0.566)	(35.72)			
L.Indep_director_ratio	-0.474	-0.436	19.29			
	(0.606)	(0.536)	(14.73)			
L2.Indep_director_ratio	-0.172	-0.205	1.305			
	(0.510)	(0.512)	(13.85)			
Year_FY1	0.0118	0.0174	-0.484**			
	(0.0195)	(0.0173)	(0.192)			
Constant	-0.0490	0.823	-17.36			
	(0.432)	(0.620)	(22.94)			
Observations	2,487	2,487	2,487			
Number of Companies		359	359			

Diagnostic Test



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AR (1) P value 0.007 AR (2) P value 0.573	R-squared	0.674	0.115		
AR (2) P value 0.573	AR (1) P value			0.007	
	AR (2) P value			0.573	
Sargen Test P Value0.143	Sargen Test P Value			0.143	

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The coefficient for the lagged Tobin's Q (L.tobin_q) varies across the three models, with the pooled model providing an upper limit of 0.895 and the fixed effects (FE) model offering a lower limit of 0.348. The Dynamic Panel Model (DPM) provides a coefficient of 0.393, which lies between these two limits. This positioning of the DPM coefficient suggests that the DPM offers a balanced estimation by accounting for both the potential biases present in the pooled model and the constraints of the fixed effects model.

In the pooled model, which exhibits the highest coefficient, there may be an overestimation of the persistence of firm performance due to the model's potential ignorance of unobserved heterogeneity and other dynamic factors. Conversely, the FE model, with the lowest coefficient, might underestimate this persistence by eliminating time-invariant characteristics, potentially leading to an underestimation of the lagged effect. By offering an intermediate coefficient, the DPM corrects for these biases by incorporating both the dynamic structure of the data and controlling for unobserved heterogeneity through Generalized Method of Moments (GMM) techniques. This adjustment suggests that the DPM provides a more adequate and realistic estimation of the lagged effect of firm performance, reinforcing its suitability for modeling dynamic relationships such as the impact of board structure on firm performance.

Moreover, the diagnostic tests for the DPM offer important validation of the model's reliability. The Arellano-Bond test results indicate no second-order autocorrelation (AR(2) test p-value = 0.573), which is crucial for the validity of the instruments used in the model. Additionally, the Sargan test of overidentifying restrictions yields a p-value of 0.143, suggesting that the instruments are valid and not correlated with the error term. These diagnostic tests affirm that the DPM is well-specified and that the results can be considered



robust and reliable for drawing inferences about the relationship between board attendance and firm performance.

The analysis shows a strong positive relationship between board attendance and firm performance across all three models. In the pooled OLS model, the coefficient for board attendance is 1.043, indicating that higher attendance is positively correlated with better performance. The fixed effects model, which controls for time-invariant characteristics of firms, also finds a positive coefficient (1.059), suggesting that the relationship holds even when firm-specific factors are considered. However, the most striking result comes from the DPM, where the coefficient for board attendance is much larger (31.95), implying a strong dynamic relationship between past attendance and current performance.

One possible explanation for the much larger coefficient in the DPM is that it captures the long-term impact of consistent board engagement on firm performance. The dynamic model accounts for the persistence in firm performance over time, as indicated by the lagged Tobin's Q, which remains positive and significant across all models. This suggests that firms with better past performance are likely to continue performing well, but the sharp increase in the attendance coefficient in the DPM implies that board engagement plays a critical role in sustaining or enhancing that performance over time.

Board size, an important governance variable, shows mixed results. In the pooled OLS model, it has a small but negative impact on firm performance, while the fixed effects model finds no significant relationship. However, in the DPM, board size has a significantly negative impact (-6.014), indicating that larger boards may hinder firm performance when accounting for past performance. This could be due to coordination issues, slower decision-making, or conflicts of interest in larger boards, which dilute the effectiveness of board governance.

Interestingly, the ratio of independent directors to total board members is another key variable that shows strong dynamic effects in the DPM. While the pooled and fixed effects models find no significant impact of independent directors, the DPM reveals a large positive coefficient (88.19), suggesting that over time, having more independent directors significantly enhances firm performance. This supports the idea that independent directors,



though potentially slow to influence in the short term, play a crucial role in improving governance quality and long-term performance.

Diagnostic tests further validate the results of the dynamic panel model. The Arellano-Bond test for AR(1) shows some autocorrelation (p-value = 0.007), but AR(2) is insignificant (p-value = 0.573), indicating no second-order autocorrelation. Moreover, the Sargan test for over-identifying restrictions provides evidence that the instruments used in the DPM are valid (p-value = 0.143). These diagnostic results confirm the robustness of the dynamic relationships identified in the model, particularly for board attendance.

Overall, this study provides strong evidence that board attendance has a significant and dynamic impact on firm performance, especially when past performance is considered. The findings suggest that board engagement, as measured by attendance, is a critical driver of firm success, highlighting the importance of effective board monitoring in corporate governance. Moreover, the interaction between board structure variables like size and independence also plays a crucial role in shaping firm outcomes over time.



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