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Gender Diversity and Stock Performance: Analysing the Impact of Female Representation in India's Top 50 Companies

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ABSTRACT

This research paper explores the relationship between gender diversity on corporate boards and stock performance in the top 50 publicly listed companies on the Bombay Stock Exchange (BSE) over 10 years, from 2014 to 2024. While the review of literature from global markets like France, and specific research into the Indian markets highlight a strong positive correlation between female representation on corporate boards and increasing stock prices, the context of the top 50 companies presents unique challenges and variables that may affect this relationship.

Data on stock price performance and the percentage of women on boards was collected from the annual reports of the top 50 companies. When a correlation test was conducted, a minimal statistical correlation between the two variables was found. Scatter plots and correlation coefficients show that despite the increase in the percentage of women on the board due to mandates like the Companies Act 2013, stock price growth, or fall, was largely unrelated to changes in diversity.

The report concludes that other factors, such as market forces, industry-specific dynamics, and the strategic roles played by board members, may overshadow the potential financial impact of gender diversity. This inability to prove an empirical correlation suggests that while diversity might be valuable for fostering better governance, it does not necessarily translate to immediate stock price benefits. These findings point to the importance of further research into the qualitative benefits of diversity in corporate offices, and the various confounding factors that could lead to minimal correlation.

1. Introduction

The concept of gender diversity on corporate boards has come to the forefront over the past few decades, with various governments, corporate leaders, and shareholders recognizing the benefits

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of diverse perspectives in leadership, and some even mandating it. Gender diversity has been linked to improved decision-making, risk management, and better corporate governance, contributing overall to better financial performance. Research in markets like the United States and various countries in Europe has suggested that companies with greater gender diversity on their boards tend to outperform their less diverse peers, with many studies finding positive correlations between female board representation and stock price performance.

In India, with the introduction of the Companies Act 2013, which mandates having at least one woman on the boards of companies with a minimum turnover of Rs 300 crores or a paid-up share capital of Rs 100 crores or more, there has been a noticeable increase in female representation on corporate boards. This legislation reflects the broader global shift toward reducing gender disparities in leadership. Despite this growing shift, older, established Indian companies seem to have entrenched gender roles which can affect how diversity measures are implemented within organizations. Moreover, the Indian stock market is growing increasingly and hence is a highly volatile economic environment that is characterized by fluctuating growth rates, currency changes, and industry challenges which can overshadow the changes brought by diversity in the leadership.

2. Review of Literature

The relation between gender diversity on corporate boards and firm performance has been researched widely across many markets and industries. The available literature generally shows that higher levels of gender diversity increase the quality of corporate governance and result in financially better outcomes. However, the evidence related to emerging markets like India is mixed.

One of the most basic theories to support gender diversity is agency theory. Agency conflicts between managers and shareholders are reduced through the presence of diversified boards. According to Adams and Ferreira (2009), improvement of board oversight in varied viewpoints leads to better governance and agency costs. This also aligns well with the argument by Hillman et al. that different boards provide access to such fundamental resources as market-related intelligence and stakeholder trust entailing gain in performance for firms.

The resource dependence theory also seems to substantiate this point. According to this perspective, gender-diverse boards are thought to be more adept at responding to complicated markets and, therefore, better able to meet the requirements of diverse stakeholders. Robinson and Dechant (1997) indicated that women on boards of firms provide diverse insights about consumer behaviour, which they stated, improve the reputation of the firm amongst its stakeholders. This leads to an improvement in financial performance, according to them. This

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theory was by Lückerath-Rovers (2013), where she came out and said that companies having high gender diversity do better because their governance and decision-making processes are improved.

Recent empirical evidence over the past decades in a variety of markets indicates a positive relationship between gender diversity and firm performance. As an example, companies with increasing representations of women in boards in the U.S. Information Technology sector are proposed to have higher levels of innovation and leads to better results in terms of financial performance by showing better price-to-earnings ratios (2021). Similar findings are also provided by Terjesen et al. (2009) and Francoeur et al. (2008), which indicated that firms with gender-diversified boards are more likely to be CSR engaged activities, which help improve public images and attract investor confidence.

However, not all the studies point out a clear positive link between the gender diversity of a firm and its performance. Studies by Bøhren and Strøm (2007) and Miller et al. (1998) found that diverse boards may face problems, such as a slowing down of the decision process, language barriers, and growing conflicts of interest, which may negatively impact financial performance. Such challenges are mostly greater within markets in which gender diversity is an aftermath of compliance rather than a genuine expression of commitment to diversity, especially in those markets with mandatory quotas.

In the Indian context, with the introduction of the Companies Act 2013, it has provided a stimulus to improve female representation as at least one woman is required on the board of companies. However, the same does not present very clear effects on firm performance. Saha and Maji showcase that gender diversity has a good performance effect on Indian family-owned firms, although the bigger market has recorded minimum correlation between the board's diversity and stock performance. Loukil et al. (2022) argue that symbolic appointment of women to boards often in non-executives or honorary posts drastically confines their input on the most crucial strategic decisions, therefore reducing the actual financial benefits from diversity.

Moreover, the large firms, especially those carrying significant capitalization in the market are less likely to be affected by the factors of board composition than the macroeconomic factors. According to Erhardt et al. (2003), in large firms, external market conditions and industry-specific dynamics together with strategic factors have a greater influence on the performance of their stocks than the women, of course, on their boards.

Overall, while gender diversity is now considered an integral part of modern corporate governance and remains under debate for its direct effect on firm performance, especially in emerging markets. The literature asserts that the financial benefits of gender diversity must be

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combined with genuine empowerment for women directors and firm strategic objectives. In such scenarios, where diversity is not a potential source of organisational advantage, the spillover effects of diversity on financial performance may remain limited, as many Indian firms have witnessed.

3. Data

This report focuses on the top 50 publicly listed companies on the Bombay Stock Exchange (BSE) from 2014-2024, analyzing the fluctuations in diversity to see the correlation with stock performance. After noticing the same in global markets, it was assumed that diversity leads to better corporate governance, leading to stronger financial performance. However, the results from the statistical testing reveal a very different picture. The correlation between board diversity percentage and stock price growth seems minimal, which raises questions about the real impact of gender diversity in an emerging market like India and the confounding variables that could be obscuring the potential benefits of board diversity.

One confounding variable could be the very nature of women appointed to boards in India. Many companies appoint women to their boards to fulfill the legal requirements for gender diversity and they do this by appointing them to symbolic/honorary roles, limiting their influence over key decisions. As a result, the mere presence of these women may not translate into an impact on financial performance. Additionally, larger companies, like the ones in the top 50 list have substantial market caps, and so their stock prices are usually more influenced by macroeconomic factors and external conditions rather than internal board changes. In such cases, diversity on the board may play a minimal role in understanding stock price growth.

Through a combination of quantitative analysis and case studies, this report seeks to explore these different factors with a focus on identifying the confounding variables that could minimize the statistical relationship between gender diversity and stock performance. By examining the annual stock price growth and board diversity percentages over 10 years, this report aims to provide an understanding of the extent of the minimal correlation, which invites exploration into the qualitative benefits of diversity and the reasons for minimal correlation,

4. Research Methodology

This paper uses both quantitative and qualitative data analysis methods to examine the relationship between gender diversity on corporate boards and stock price performance for the top 50 publicly listed companies on the Bombay Stock Exchange (BSE) over ten years (2014-2024).

The paper is divided into two main parts:

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1. The calculation of correlation coefficients and scatter plots to visualise the relationship between stock price growth and diversity
2. Qualitative case studies of a few companies to understand the potential confounding variables that could minimize this relationship

The data for this paper was collected from two primary sources:

1. Stock Price Data- Historical stock price data for the top 50 publicly listed companies on the BSE was collected from Yahoo finance. An average was taken for each fiscal year, allowing for the calculation of year-on-year stock price growth rates.
2. Gender Diversity Data- The percentage of women on the boards of these companies was collected from the board composition sections of the annual reports of these companies. In the case of some companies, this data was not available, and so those companies have been excluded from these studies.

The sample of the top 50 companies listed on the BSE was chosen because they represent a wide range of industries, for example- technology, banking, manufacturing, energy, and consumer goods, ensuring that the data analysis would capture different market sectors. Additionally, these companies also have large market capitalization and financial significance, providing insights into broader market patterns, not just individual company patterns.

5. Findings

As mentioned earlier, the analysis is conducted under two heads. Firstly, correlation coefficients and scatter plots are calculated to visualise the relationship between stock price growth and diversity. Secondly, qualitative case studies of a few companies have been undertaken to understand the potential confounding variables that could minimize this relationship

6. Quantitative Analysis

For the quantitative analysis in this report, the correlation between gender diversity on corporate boards and stock price growth for India's top 50 publicly listed companies on the Bombay Stock Exchange (BSE) over a ten-year period (2014-2024) was determined. The Pearson correlation coefficient was used to measure the strength and positivity/negativity of the relationship between the increase in the percentage of women on the board and the stock price growth rate. Then scatter plots were created for each year to visually assess this relationship across the companies. Each point on the scatter plot represented a specific company, with gender diversity percentages on the x-axis and stock price growth rates on the y-axis.

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Figure 1: 2023-24/Diversity vs Growth Rate

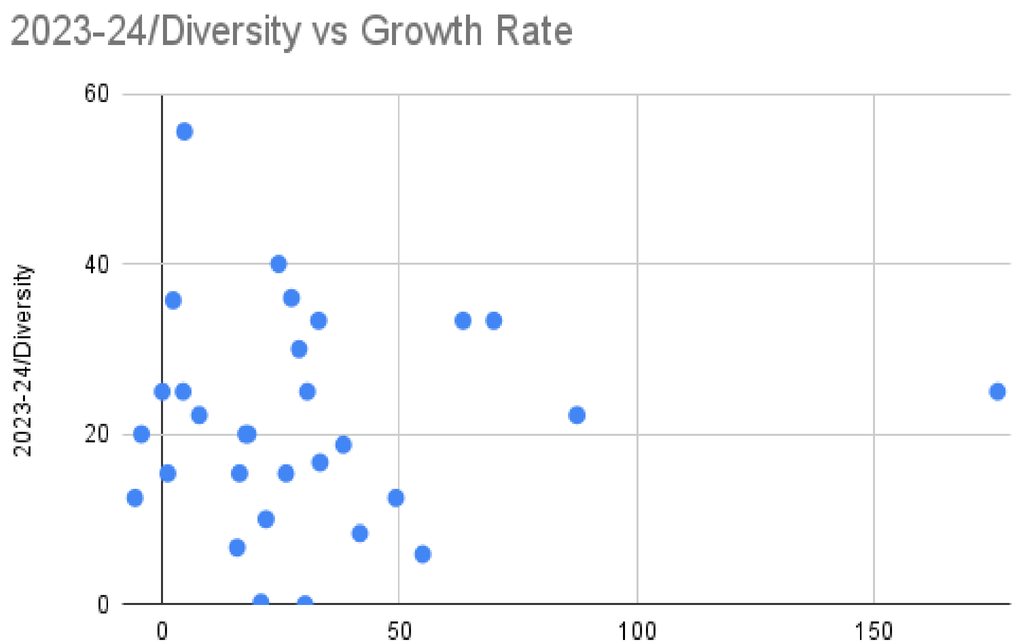

Figure 2: 2022-23/Diversity vs Growth Rate

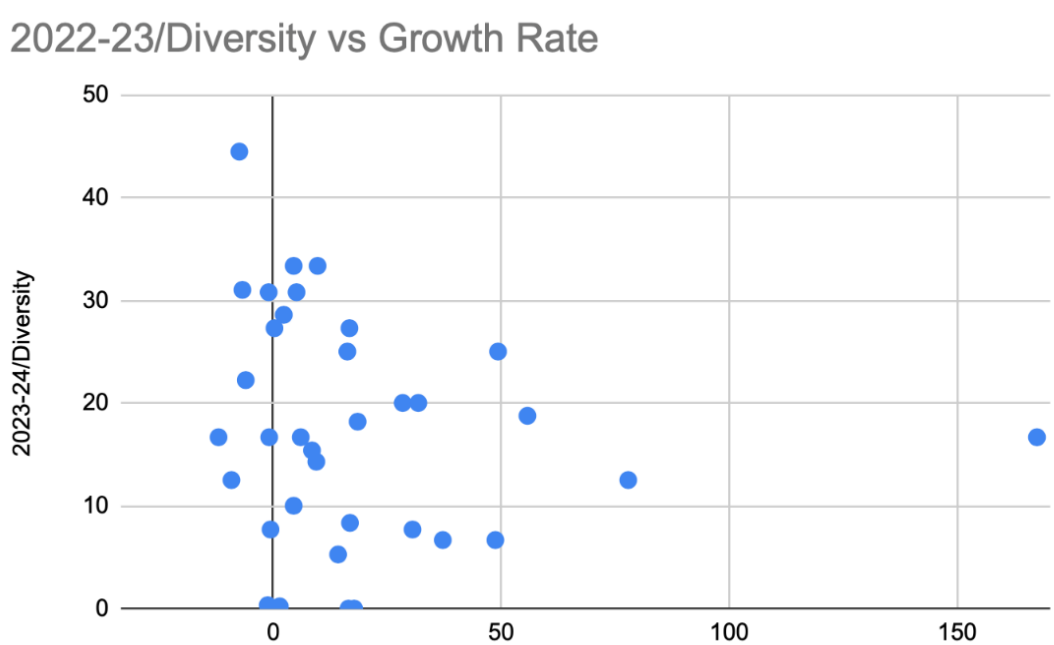

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Figure 3: 2021-22/Diversity vs Growth Rate

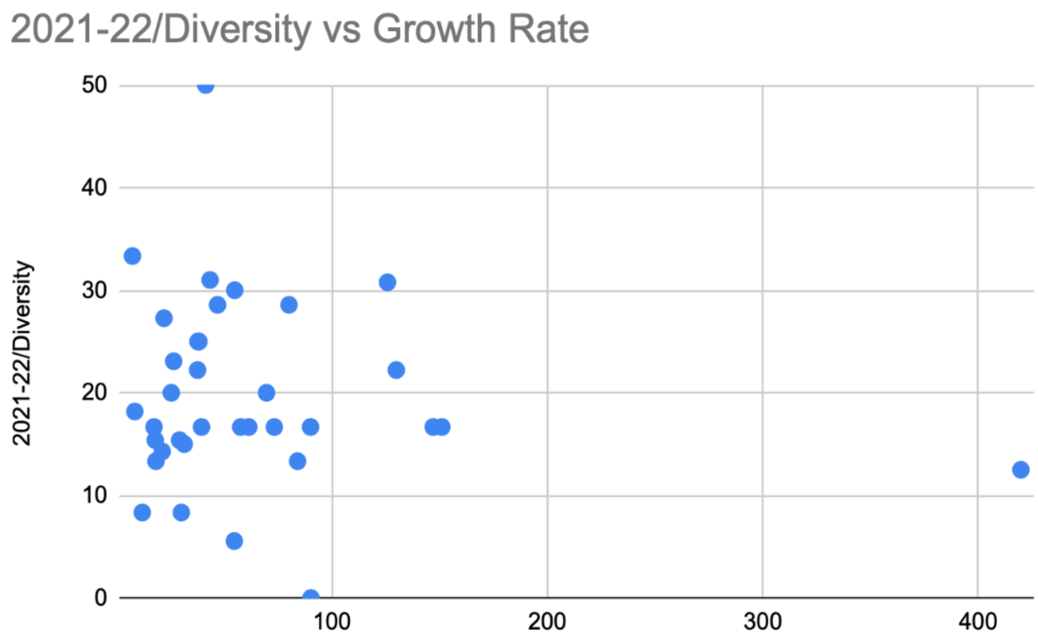

Figure 4: 2020-21/Diversity vs Growth Rate

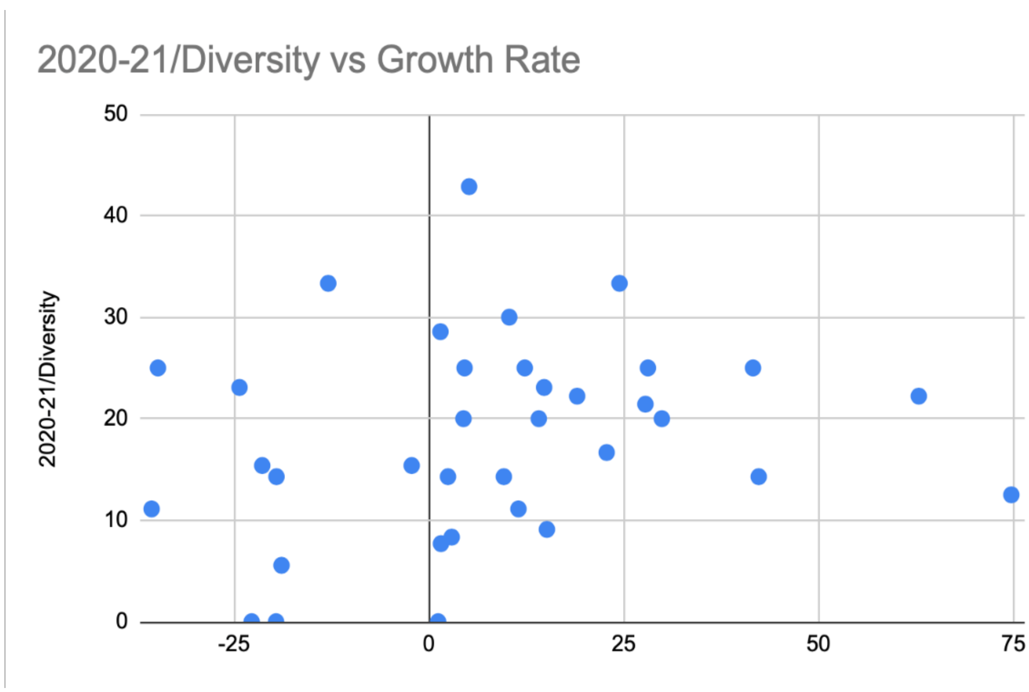

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Figure 5: 2019-20/Diversity vs Growth Rate

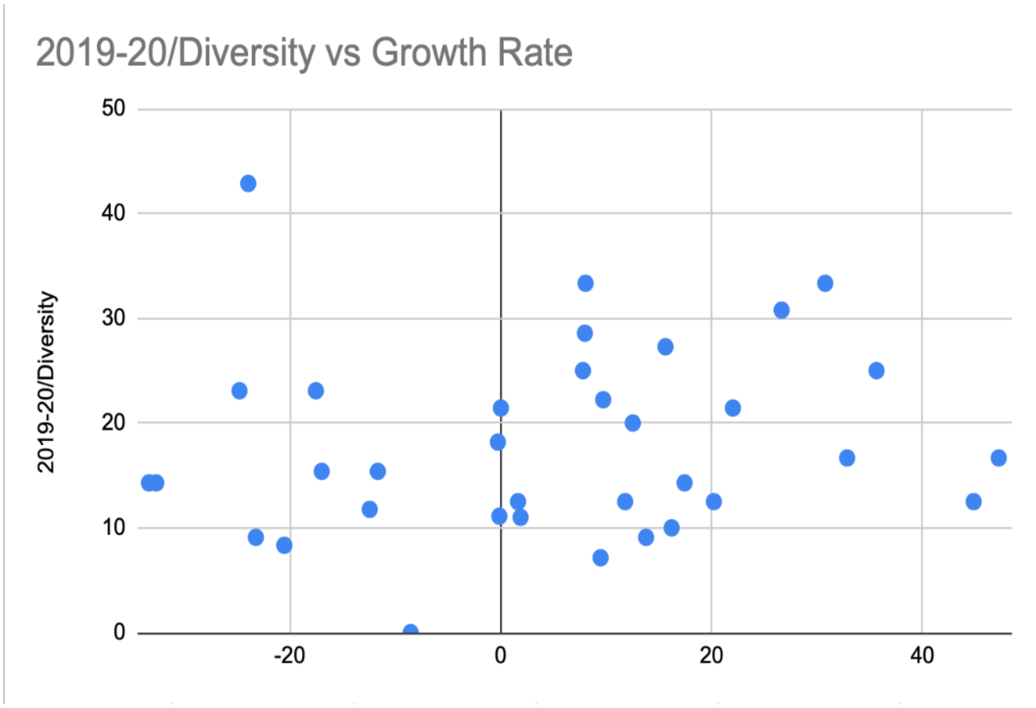

Figure 6: 2018-19/Diversity vs Growth Rate

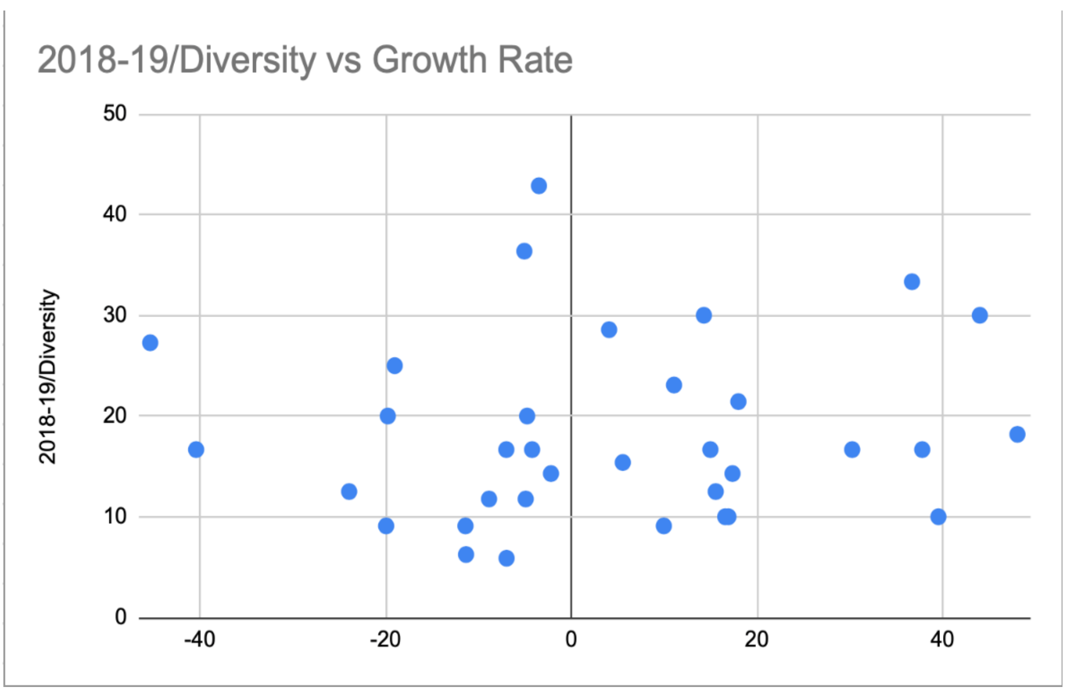

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Figure 7: 2017-18/Diversity vs Growth Rate

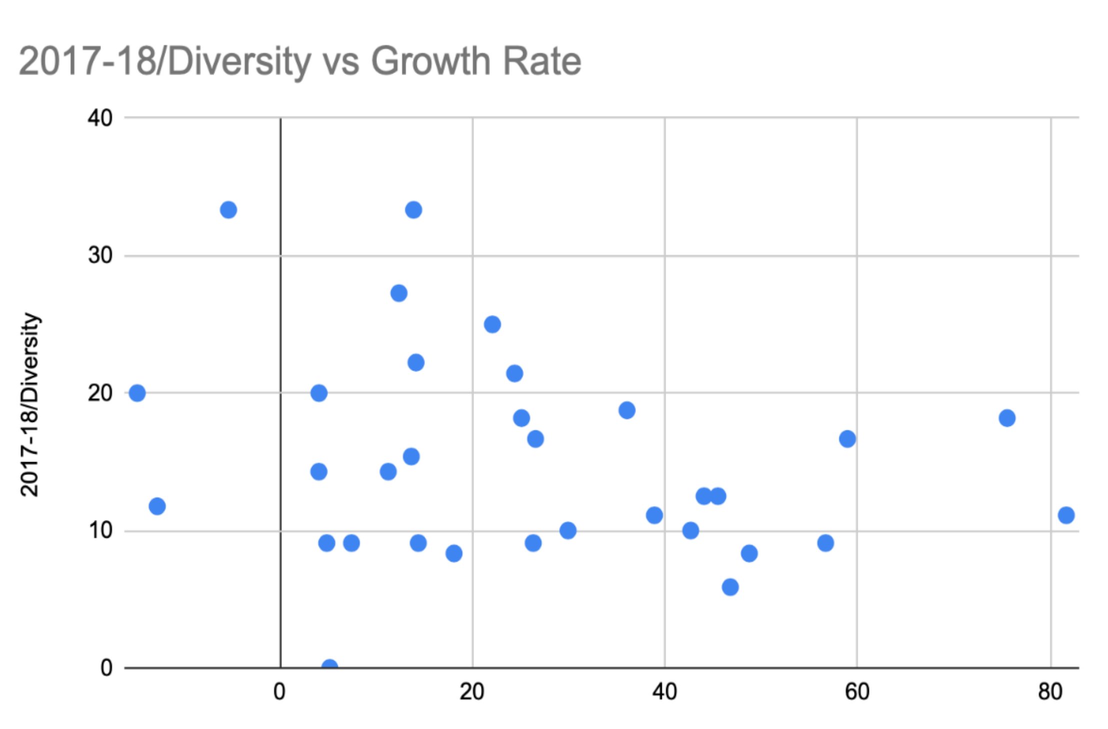

Figure 8: 2016-17/Diversity vs Growth Rate

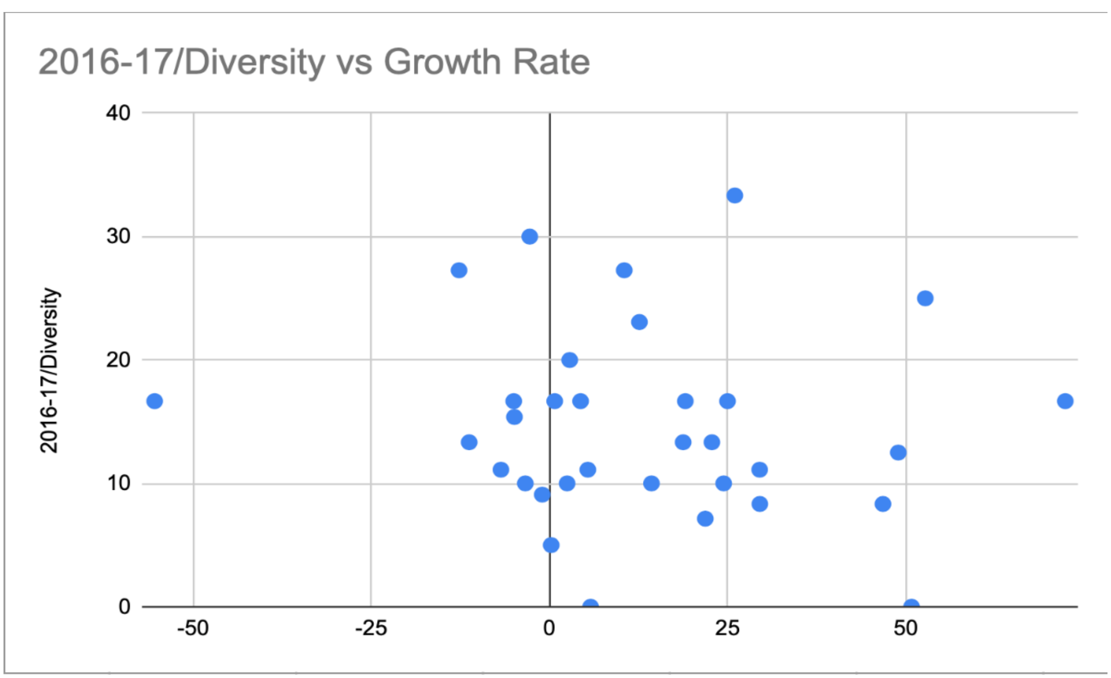

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Figure 9: 2015-16/Diversity vs Growth Rate

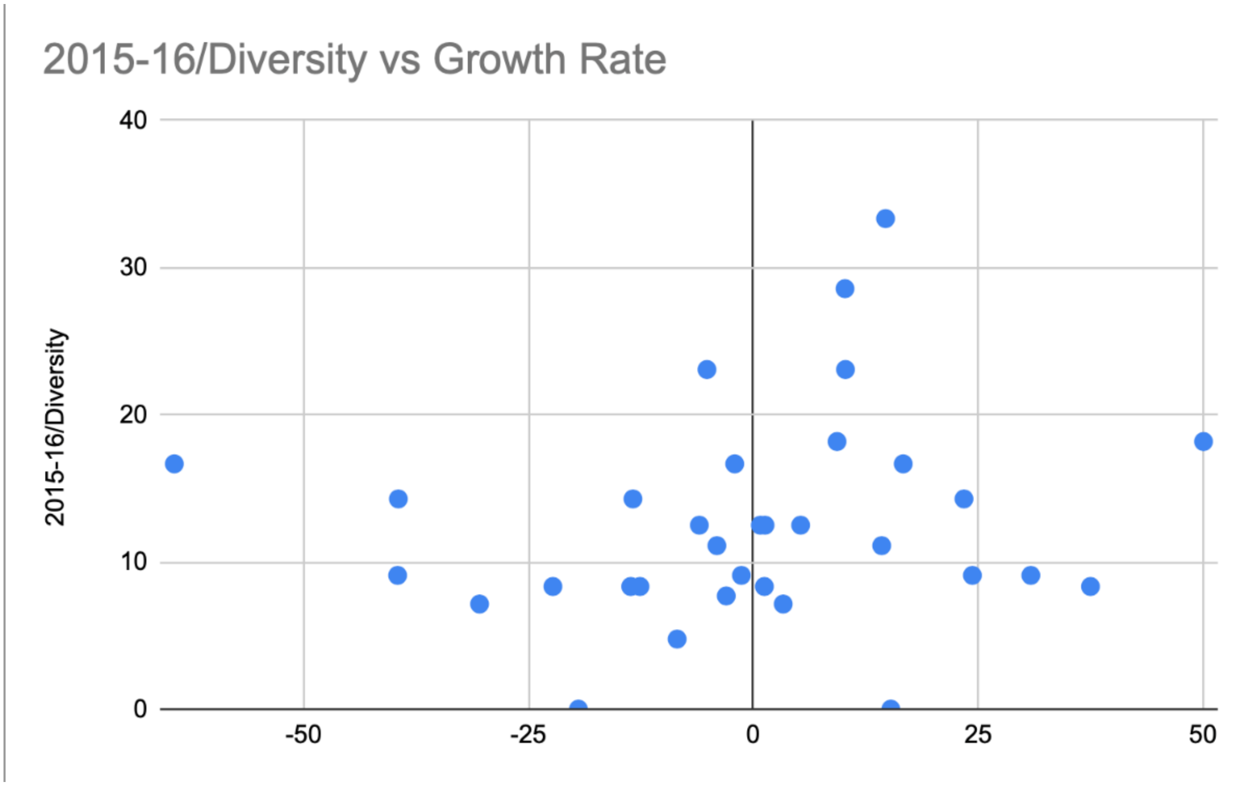

Table 1: Correlation Coeefficients for Growth Rate vs Diversity

Year	Correlation Coefficient
2023-24	0.022
2022-23	-0.144
2021-22	-0.132
2020-21	0.203
2019-20	0.121

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2018-19	0.069
2017-18	-0.24
2016-17	-0.11
2015-16	0.162

The quantitative analysis results showed that there was a minimal correlation between gender diversity and stock price growth. The Pearson correlation coefficients for most companies just hovered around zero, going both positive and negative indicating little to no statistical significance and direct relationship between the two variables. These plots also visually confirm that there is no clear trend with the data points dispersing and showing no consistent trajectory upwards or downwards, implying that the effect of gender diversity on the stock performance was probably overshadowed by other factors.

7. Case Studies & Confounding Variables

Case Study 1: Reliance Industries

To fulfill the compliances of Companies Act 2013, Reliance Industries of India-an energy and telecom major-ensured all the necessary compliances with a range of gender diversity initiatives. But at the same time, though it is fulfilling the legislated requirement of having one woman on the board, its strategy on diversity is one of mere compliance rather than being empowering to women in the influential sectors.

Studies suggest that the female board members of Reliance play very little role in strategic decision-making and this aspect can explain why the share of gender diversity has the weakest correlation with stock performance. Besides, exogenous factors like change in global commodity price or regulatory change affect oil and telecommunications industries to a great extent, thus dominating the board composition with regard to performance in shares.

Lückerath-Rovers, more recently, (2013) claims that within very masculine industries, such as energy and telecommunications, gender diversity is more symbolic than a source of actual influence on corporate governance. This raises the more general question for Reliance when female board members could not be strategically positioned to lead key financial decisions-how the mere presence of female members may degrade the usual benefits of diverse boards.

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Case Study 2- Hindustan Unilever

Another such giant of Indian consumer goods is Hindustan Unilever, which sounds to reflect complexity associated with gender diversity and stock performance. Even though this group has increased their number of women on the board over recent years, still, the correlation of stock performance to external factors such as consumer demand, supply chain management, and competition in the marketplace bears more weight.

For consumer goods industries, firm-level gender diversity, there is some research evidence that shows improvements in terms of public image and stakeholder trust in terms of CSR initiatives but no immediate financial gain. For example, Francoeur et al. (2008) showed that firms with diverse boards are able to manage more public relations and corporate social responsibility issues and that this improves long-run sustainability although does not immediately affect the stock prices.

In the case of Hindustan Unilever, the increased gender diversity undoubtedly brought enhanced corporate governance and higher public trust. Yet, by far, the sharpest movements in its stock price appear to be driven more by macroeconomics than by board composition-related factors. Female leadership, nonetheless, has been critical to brand image during a time when consumers themselves are increasingly coming to value diversity and ethical governance.

Confounding Variables

The confounding variables in this case include the nature of women's appointment to corporate board, company size and market capitalization, industry-specific factors, market trends, and a potential of time lag.

1. **Symbolic Appointments**

One of the main confounding variables was the nature of female board appointments. While India's Companies Act 2013 mandates that companies above a certain threshold for paid-up capital and turnover must have at least one female board member, and companies do follow this regulation, simply nominating a woman to the board does not necessarily mean any difference in decision making and undermines the potential benefits of gender diversity, because the diverse perspectives of these women are not fully used within the company's governance.

Many companies also comply with the gender diversity mandate by appointing women to honorary or advisory roles, which often carry less decision-making power compared to executive positions, meeting legal requirements without genuinely influencing corporate strategy. As a

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result, gender diversity on paper may improve, but the actual impact of these board members on corporate governance and stock performance is limited.

2. Company Size and Market Capitalization

Larger companies, like the ones in this data set, with a significant market capitalization, such as Reliance Industries, HDFC Bank, and Tata Consultancy Services (TCS), are less likely to see large changes in stock price based merely on internal changes to the company, including board diversity.

Large companies are often more stable and less sensitive to internal changes like board composition. These companies are also long established and their stock prices are generally driven by macroeconomic factors, global market demand, or industry-specific conditions. For example, Reliance Industries' stock price was heavily influenced by global oil prices during the period studied, which overshadowed any potential positive effects of board diversity. Additionally, investors in large, publicly listed companies tend to focus more on external factors such as market trends, regulatory changes, and economic cycles, rather than internal governance changes, and as a result, increases in gender diversity on boards may not lead to significant stock price movements in these larger companies.

3. Market Trends and Economic Cycles

External economic and market conditions could also have played a substantial role in the stock performance for many of the companies in this study. 2014-2024 included several significant economic events, such as the demonetization of certain Indian currencies in 2016, the introduction of Goods and Services Tax (GST), and the global economic recession caused by COVID-19. These events had stock prices dropping sharply across all sectors regardless of the percentage of women on boards, rather, reflecting broader market trends.

4. Time Lag in Diversity Impact

Finally, one last confounding variable could be that the benefits of increased gender diversity on boards could be taking time to manifest into direct improvements to financial performance, caused by the likely long-term nature of the changes. The effects of diversity on decision-making and risk management may not immediately mean measured financial improvement. Long-term benefits, such as these, may only become visible beyond the timeframe of this report.

8. Conclusion

This research paper presents a different view of gender diversity on corporate boards and its relationship with stock performance among the top 50 publicly listed companies on the Bombay

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Stock Exchange from 2014 to 2024. While global findings suggest a positive association between gender diversity and firm performance, our findings indicate that in the Indian context—particularly in large, established companies—gender diversity does not necessarily translate to an immediate benefit in terms of stock price. This may be attributed to various confounding factors such as the symbolic or honorific appointment of women on boards, significant market capitalization, industry-specific factors, macroeconomic events, and a time lag before possible benefits become apparent.

A key limitation of this study is its reliance on data that fails to adequately capture the qualitative contributions of board diversity. Additionally, it relies on stock price as a singular measure of financial performance. Expanding the analysis to probe qualitative aspects—such as the influence of board members and governance practices—may offer insights into the ways diversity brings added value beyond financial returns. Economic downturns and policy changes, such as demonetization and GST, complicate efforts to isolate the effect of board diversity from market forces, which could be better controlled in future research.

In conclusion, while board diversity is important for fostering inclusive and progressive governance, its short-term impact on stock price in Indian large-cap firms appears limited, aligning more closely with broader market trends. This research encourages further analysis of the qualitative benefits of board diversity and suggests that some Indian firms may engage in symbolic compliance that undermines the true financial benefits diversity can deliver. Future studies could focus on other emerging markets, longer-term analyses to capture delayed financial benefits, or alternative performance indicators beyond stock price to provide a more comprehensive view of the impact of board diversity.

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