



Boardroom Diversity and Financial Outcomes: Examining Caste Representation in Indian Firms

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I, Viranchi Pathak, declare that this dissertation is my own original work. All references and assistance are acknowledged.

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Abstract

This thesis analyses the way in which caste and gender diversity on company boards relate to each other and robust financial performance in India, for NIFTY-50 companies between 2018 and 2024. While gender diversity has been the fulcrum of policy and academic discourse, its counterpart, caste diversity, is virtually absent from the governance literature although it is well entrenched within Indian society. This study bridges this gap by investigating whether board-level diversity in caste and gender affects financial performance return on equity (ROE), revenue, and net income.

Board composition data were selectively extracted from annual reports, BSE filings, and company websites, while financial data were from Refinitiv Eikon DataStream. Directors were segregated by gender and by caste according to the fourfold varna system. Blau's index was employed to quantify diversity. Panel regression models, selected according to Hausman tests, estimated diversity-performance relationships with controls for board size, firm size, leverage, and foreign directorship.

Evidence shows that gender and caste heterogeneity have different impacts on various firm performances. Caste diversity is positively related to net income, implying diversified boards are profitable due to improved monitoring and decision-making. Gender diversity is positively associated with revenues, implying diverse boards enhance external legitimacy and stakeholder confidence. Both gender and caste diversity have no significant relationship with ROE, implying the difficulty in translating board diversity into shareholders' returns.

By measuring caste as an organizational-level variable, this thesis contributes fresh evidence to the field of corporate governance. It demonstrates that diversity has multi-dimensional effects rather than being single-dimensional. For policymakers and firms, the research highlights that diversity needs to be viewed not as a mere compliance requirement but as a strategic advantage with the potential to lift governance, reinforce legitimacy, and support sustainable development.

List Of Abbreviations

ABBREVIATION	FULL FORM
AT	Agency Theory
BSE	Bombay Stock Exchange
CSR	Corporate Social Responsibility
COVID-19	Coronavirus Disease 2019
DEI	Diversity, Equity, and Inclusion
ESG	Environmental, Social, and Governance
FE	Fixed Effects (panel regression model)
IT	Institutional Theory
NIFTY-50	National Stock Exchange Fifty Index (top 50 firms in India)
NSE	National Stock Exchange of India
OBCS	Other Backward Classes
OLS	Ordinary Least Squares
RE	Random Effects (panel regression model)
RDT	Resource Dependence Theory
ROA	Return on Assets
ROE	Return on Equity
SCS	Scheduled Castes
SEBI	Securities and Exchange Board of India
STS	Scheduled Tribes
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
R ²	Coefficient of Determination
VIF	Variance Inflation Factor
RDT	Resource Dependency Theory

Chapter 1: Introduction

1.1 Introduction

India has been culturally segmented into a system of castes for thousands of years, and the system continues to shape society in profound and structural ways. The caste system has created stupendous economic and social inequalities, affecting opportunities, education, and resources (Akerlof, 1976). Caste is widely accepted as the basic structural component of Hindu society, and social scientists universally agree that it is central to understanding the institutional organization of India. Since Hinduism is typically described as much a social structure as religion, its practice and ritual based on caste has governed the lives of most Indians for centuries (Sana, 1993). These rigid hierarchies also gave rise to affirmative actions such as reservations in the government employment, educational institutions, and legislatures for people who were historically not included or labeled as "untouchables." Just as these redemptive measures, caste-based inequalities remain pervasive, and their implications filter into India's corporate sector. Recent evidence suggests that caste handicaps persist beyond access to education and jobs, going on to cover entrepreneurship and firm productivity. Raj and Sen (2024) find that enterprises owned by Scheduled Castes and Scheduled Tribes still face persistent productivity inequalities, which outline how entrenched disparities continue to organize India's economic results.

While gender and ethnic diversity have been extensively examined worldwide, caste diversity remains a less explored but no less significant dimension, particularly in India where corporate decision-making is still influenced by sociocultural stratification. Researchers such as Herring (2009) have established that diversity has the ability to drive sales revenue, customer base, and profitability, and further underscores the business case for inclusion. Similarly, Edmans et al. (2023) argue that diversity programs typically improve the bottom line, but demographic diversity alone will not necessarily be better unless it is driven by meaningful inclusion. Globally, consultancy studies such as McKinsey (2020) have placed considerable focus on the observation that diversity is a determining driver of business success, linking it to innovation, competitiveness, and profitability.

In India, however, the corporate sector remains dominated by privileged castes, limiting boardroom diversity (Bhagavatula et al., 2019). Despite decades of affirmative action in the public sector, members of castes occupy few key corporate positions (Iyer et al., 2013). Empirical evidence has shown that caste diversity at the board level is still extremely low, with the powerful groups continuing to dominate strategic decision-making (Garg et al., 2023; Bhagavatula et al., 2023). The exclusion does not only limit economic mobility but may also

compromise corporate governance by perpetuating homogeneity and narrowing perspectives (Iyer et al., 2013). Meanwhile, there is also surfacing evidence that religious and caste diversity on boards will strengthen governance and performance by enhancing perspectives and preventing groupthink (Bhagavatula et al., 2023).

Aside from caste, gender diversity has been a focus area of policy reform. The Securities and Exchange Board of India (SEBI) made it mandatory to include at least one woman director on the boards of listed companies, aligning Indian practice with global best practices. Studies on gender diversity in India have produced mixed findings. Female board presence is said to increase the performance and legitimacy of companies (Sanan, 2016; Limbasiya & Shukla, 2019; Chatterjee & Nag, 2023). Kamath (2022) also finds that gender diversity has increased among NIFTY50 firms since the Companies Act 2013, yet its impact on profitability remains limited, though there is potential for productivity to be gained, while others propose that tokenism erodes the impact since women have minimal power in decision-making (Bhagavatula et al., 2023). Hence, while gender diversity has been studied and mandated, caste diversity remains a less-studied but no less significant issue in corporate management.

This context encourages the present research to investigate the impact of gender and caste diversity on the financial performance of NIFTY-50 firms between 2018 and 2024. Board compositions were hand-collected from firm filings and reports, and gender and caste were coded using standard methods. Financial performance was measured with return on equity, revenue, and net income, while Blau's index was employed to measure diversity. Panel regression models, for which Hausman tests established the choice between fixed and random effects, were then used to examine if diversity has a relationship with performance, while controlling firm size, board size, leverage, and foreign directors. By connecting board-level outcomes with more general proof on caste-bound performance differentials (Raj & Sen, 2024), this study positions corporate governance within the wider socio-economic contexts in India.

The study contributes to the literature in several ways. Theoretically, it broadens diversity performance discourse by suggesting the application of caste as a measurable board-level factor, an aspect not easily encountered in previous research on governance. It also demonstrates that different dimensions of diversity have different effects on different outcomes, since caste diversity is seen to impact profitability and gender diversity is seen to impact revenue. Empirically, the paper builds one of the largest-scale quantitative datasets on Indian boards' caste and gender diversity by using manual classification along with financial data. In reality, the research provides guidance to firms and policymakers on how to leverage

diversity as a strategic as opposed to a compliance tool. In order to achieve this, this thesis not only fills an essential scholarly research gap but also informs policy discussions on inclusive corporate governance in India's dynamic economic environment.

1.2 Research Questions and Objectives

This research is motivated by the general question of whether or not gender and caste diversity on Indian boards has a measurable impact on firm financial performance. While gender diversity has been a debated topic among academics and policymakers for some time, with legislation mandating women's representation on boards (Limbasiya & Shukla, 2019; Sanan, 2016), there has been relatively little research on caste diversity as part of corporate governance. Based on recent studies that record the under-representation in leadership positions of marginalized caste groups (Iyer et al., 2013; Bhagavatula et al., 2023; Garg et al., 2023), this thesis has as its question whether heterogeneity of boards influences different measures of performance, i.e., return on equity, revenues, and net income.

To this question, the study sets up three objectives. The primary objective is to create a robust measure of heterogeneity in gender and caste in boardrooms using Blau's index consistent across companies and over time. The secondary objective is to empirically test the relationship between firm performance and board diversity using panel regression methods on NIFTY-50 firms between 2018 and 2024 while controlling for firm size, leverage, board size, and foreign directors' presence. The third objective is to place the findings within the Indian institutional context and juxtapose them with existing diversity and governance theories. In so doing, the study aims to examine if caste and gender diversity provide internal advantages in the form of monitoring and profitability improvements, or external advantages in terms of improved legitimacy and top-line revenue, and investigate why certain aspects of diversity may fail to materialize at the shareholder level.

With these objectives, this research seeks to contribute to the diversity performance literature by setting caste front and center as a unique and untested variable in the corporate landscape of India. It also seeks to provide tangible suggestions for firms and regulators regarding how diversity can be framed not only as a moral imperative but as a governance and financial performance driver.

1.3 Structure of the Thesis

The remaining part of the thesis consists of six chapters. Chapter 2 is the literature review of board diversity and firm performance, focusing particularly on gender and caste representation in the Indian context, and situating the study within the context of prevailing

theoretical frameworks. Chapter 3 establishes the methodology, outlining the procedure of data collection from the reports of the companies and Refinitiv Eikon, director classification based on caste and gender, computation of Blau's index, and the creation of control variables like board size, firm size, leverage, and foreign director presence. Chapter 4 discusses descriptive statistics and correlation analysis to provide an overview of the dataset and spot emerging trends. Chapter 5 reports the results of the econometric analysis, showing the association of gender and caste diversity with the performance of firms and consists of graphical representation and regression findings. Chapter 6 explains these results in light of earlier literature and theoretical debates, highlighting the diverse effects of gender and caste diversity. Finally, Chapter 7 concludes the thesis by restating the research objectives, outlining the findings, and defining theoretical contributions, practical implications, policy implications, limitations, and avenues of future research.

Chapter 2: Literature Review

2.1 Introduction

The relationship between company performance and board diversity has attracted intense research interest, but its implications remain controversial, particularly in India. While there are foreign studies highlighting that boards of diverse composition will enhance decision making, increase legitimacy, and make financial outcomes more stable (Herring, 2009; McKinsey, 2020), others advise against inefficiencies resulting from fragmentation and tokenism (Hillman & Dalziel, 2003; Deshpande, 2013). Cimerova, Dodd, and Frijns (2019) add to this critical perspective by showing that cultural diversity in UK boards decreases firm performance, pointing out that the relation between diversity and performance is not always positive for all situations. In India, gender diversity has received regulatory attention through SEBI's mandate for female directors, yet caste diversity remains largely absent from governance debates despite its deep-rooted role in shaping access to economic and professional opportunities (Iyer et al., 2013; Garg et al., 2023). Joshi (2017) highlights that even beyond boardrooms, gender diversity is not necessarily correlated with improved firm performance in India, and differences by industry such as retail have positive effects. This suggests that diversity-performance relationships are highly context specific. Recent studies also confirm that caste disadvantages persist in more general business environments. Raj and Sen (2024) show how Scheduled Caste and Scheduled Tribe entrepreneurs' businesses still display persistent productivity differentials vis-a-vis other groups, and they highlight that caste-based disparities still impact the performance of businesses beyond the boardroom. The chapter surveys the theoretical and empirical foundation of the diversity performance debate, with particular emphasis on caste as an under-researched but critical theme. It begins by outlining the main theoretical approaches utilized to explain the implications of diversity, continues with a discussion of empirical findings relating to board composition and profitability, and concludes with attention to the specific issues of castebased representation in Indian corporate governance. It concludes by identifying areas that the thesis will address in the literature.

2.2 Theoretical Framework

2.2.1 Resource Dependence Theory

Heterogeneous member boards provide better access to markets, capital, and networks (Pfeffer & Salancik, 1978). Research shows DEI commitments boost share performance (Fei et al., 2022), while evidence from the Asia-Pacific suggests diversity programs strengthen

emerging market governance (Chen et al., 2023). For India, caste-diverse boards can improve corporate legitimacy, customer trust, and stakeholder relationships (Gong, 2006; Garg et al., 2023; Bhagavatula et al., 2023).

2.2.2 Agency Theory

Dimensionality can reduce insider control and improve monitoring (Dayanandan et al., 2019), but excessive heterogeneity may lead to fragmentation of boards and hinder decision-making (Hillman & Dalziel, 2003; Rockey & Zakir, 2020; Joshi & Roh, 2009). Dimensionally heterogeneous boards tend to have coordination issues that affect effectiveness, as empirical findings confirm (Garg et al., 2023).

2.2.3 Institutional Theory

Corporations usually implement diversity measures for compliance purposes, not for genuine change (Meyer & Rowan, 1977; Dobbin & Kalev, 2016). India's SEBI requirement for women directors is an instance of compliance-driven diversity (Zhang, 2020; Khan & Baker, 2023). Academics contend tokenism undermines caste-based inclusion (Deshpande, 2013).

2.3 Board Diversity and Financial Performance

Positive effects are well reported. Studies establish that gender-diverse boards increase revenue, customer trust, and profitability (Herring, 2009; McKinsey & Company, 2020). In Spain, Campbell & Mínguez-Vera (2007) prove gender-diverse boards positively affect firm value, whereas in India, Kundu, Bansal, & Pruthi (2019) establish workforce diversity improves public sector performance. Kamath (2022) shows NIFTY-50 gender diversity boosts productivity (asset turnover), though profitability gains are modest. Chatterjee & Nag (2023) illustrate women directors improve performance where participation is high. Arora (2022) finds gender-diverse BSE-500 boards improve accounting and market performance but not dividends. Limbasiya & Shukla (2019) illustrate gender-diverse boards reduce groupthink.

Caste diversity also has benefits: diverse boards generate legitimacy and market trust (Bhagavatula et al., 2023; Garg et al., 2023). Dayanandan et al. (2019) prove that caste-diverse companies have better ROA and stock performance compared to homogenous companies.

There are issues though. Giannetti & Zhao (2015) link diversity with volatility. Joshi (2017) finds that gender diversity brings no collective performance enhancements in India, though retail firms benefit. Aggarwal, Jindal, & Seth (2019) show ownership moderates the result in favor of independent firms over group firms. Rockey & Zakir (2020) record fragmentation because of ideological heterogeneity in excess. Ganguly, Rao, & Dutta (2021) state the persistent glass ceiling inhibits female board power. Deshpande (2013) and Dobbin & Kalev

(2016) identify tokenism reduces the result.

2.4 Caste Based Board Diversity In India

Indian corporate top-level caste diversity is a notably under-researched yet highly significant phenomenon, given the deeply ingrained influence of caste stratification on economic and career opportunities.

While gender diversity has seen some advancement with regulation, boardroom representation still lags behind for caste.

Studies suggest that over 85% of directorships in NSE-listed companies are held by dominant castes, with SCs and STs having less than 5% representation (Bhagavatula et al., 2017). Despite India's attempts at public institution inclusivity, private corporate leadership is still lacking in caste diversity, sustaining a leadership hierarchy that Favors historically privileged groups (Bhagavatula et al., 2023).

2.4.1 Historical Barriers Faced by Marginalized Groups

One of the most important challenges for caste diversity in boardrooms is the legacy of exclusion from education and professional environments among marginalized communities. Scheduled Castes, Scheduled Tribes, and Other Backward Classes (OBCs) have historically faced structural constraint on

access to higher education and professional occupations (Bhagavatula et al, 2017). While affirmative action policies have helped to increase their numbers in governmental organizations; there is no legal requirement for the private sector to undertake similar diversity requirements.

As a result, corporate leadership continues to be occupied by upper-caste individuals, who are privileged through elite access to educational networks and strong professional connections (Iyer et al., 2013).

In addition, informal recruitment and nepotism also limit prospects for lower-caste professionals because personal and business relationships determine many board appointments instead of merit (Dayanandan et al., 2019). Discrimination and prejudice during the recruitment process also largely limit caste diversity in leadership. Research suggests that hiring managers and board members subconsciously associate leadership potential with upper-caste identities and consequently select marginalized caste professionals less frequently despite their qualifications (Garg et al., 2023).

Even in Indian multinationals where diversity and inclusion initiatives are often highlighted, caste representation remains a forgotten agenda compared to gender and ethnic diversity initiatives (Deshpande, 2013). The lack of transparent caste based recruitment strategies and

performance measures further slows the progression of marginalized groups towards business leadership. While affirmative action policies for SCs, STs, and OBCs have been implemented in public sector undertakings by the Indian government, there exists no legislative mandate for implementing caste diversity in private sector firms (Garg et al., 2023). The Securities and Exchange Board of India has put in place regulations on board diversity but these are focused primarily on gender and not casteness (SEBI, 2018).

Hence, private companies remain relatively less regulated in their diversity practices, and even caste diversity programs are voluntary rather than mandatory. Certain companies have attempted to address caste disparities through Corporate Social Responsibility efforts, offering scholarships and professional skill development opportunities to disadvantaged sections but whose initiatives do not necessarily translate into greater boardroom representation (Dayanandan et al., 2019).

2.4.2 Legal and Policy Measures for Caste Inclusion

Despite these hurdles, the need for greater caste representation in boardrooms of corporate companies is widely accepted. Yet, short of stricter legal frameworks, compulsory diversity policies, and company-wide changes in recruitment and promotion, boardroom inclusion of the caste groups will have limited bite. While business case for diversity is strong, corporate India has been slow to adopt concrete steps towards meaningful caste based representation and is still working towards being a largely symbolic rather than actual change.

2.5 Empirical Evidence for Caste Diversity & Financial Results

Empirical research on caste diversity and financial performance of Indian firms is limited but growing.

Scholars have examined whether more diverse boards result in greater firm value, improved governance, and improved financial performance.

But findings are mixed, with some indicating positive effects for firm performance and others showing nugatory or even negative effects due to the problems of governance and tokenistic approaches to diversity. There is a wide gap in the literature regarding the long-term financial impacts of caste diversity in Indian corporate governance. Several quantitative studies have attempted to measure the economic impact of caste diversity on firm performance using regression analysis, panel data estimation, and economic indicators such as return on assets (ROA), return on equity, Tobin's Q, and stock price volatility. Bhagavatula et al. (2023) conducted a large scale empirical study of Indian corporate boards and found that firms that had greater leadership level caste diversity experienced higher ROA and better long-term stock performance. Their study, which used fixed-effects regression models,

demonstrated that companies with caste-diverse boards experienced lower earnings volatility, which suggests that caste-diverse leadership teams bring more diversity in risk assessment approaches and finance decision-making styles.

Similarly, Dayanandan et al. (2019) tested a sample of NSE listed firms and found that board homogeneity was negatively associated with firm valuation, i.e., firms with highly concentrated caste composition have low market trust and weak financial health.

It is unveiled through their research that heterogenous boards are behind greater corporate disclosure and investor trust, and subsequently greater firm value and financial strength.

However, the impact was moderated by firm size and ownership structure, with family firms witnessing less intense advantages from board diversity than listed companies. Consistent with this argument, Aggarwal, Jindal, and Seth (2019) demonstrate that membership in business groups plays a pivotal role in mediating diversity results. They find that standalone firms capture stronger performance benefits from diverse boards, while group-affiliated firms, being generally rooted in family ownership, capture little. This implies that the economic dividend of diversity in India is highly context-dependent, depending on ownership and governance structures. Other research, however, presents contrary evidence that fails to uncover necessarily improved firm performance due to caste diversity. Rockey & Zakir (2020) found that while political diversity on boards was associated with positive market returns in some cases, high heterogeneity led to boardroom discord and delay in decision-making, negatively affecting financial performance.

This aligns with Agency Theory, as it shows that independent and diverse boards improve monitoring, but excessive fragmentation can worsen strategic decision-making and create governance inefficiencies (Hillman & Dalziel, 2003).

2.5.1 Quantitative Studies on Caste Diversity

Qualitative research also recognizes significant problems in implementing caste diversity in boardrooms. Deshpande (2013) interviewed corporate managers in depth and concluded that many companies follow "token diversity" practices, appointing directors from marginalized castes without giving them significant decision-making power. Many respondents acknowledged that while business reputation and rule compliance are both boosted through the presence of caste diversity, this is not always reflected in meaningful involvement in governance. Moreover, informal enterprise networks, nepotism, and understated prejudices also remain barriers to lower-caste professionals reaching executive leadership positions (Iyer et al., 2013).

Measurement and data limitations are another huge challenge.

Though gender diversity, being quantifiable at will, remains difficult to track in the form of caste-based diversity owing to a lack of clarity about board composition statistics (Garg et al., 2023).

Most firms do not publish caste breakdowns of directors, thereby making it difficult for researchers to properly ascertain the correlation between representation by caste and bottom-line performance. Moreover, there are a few studies that utilize surname-based classification methods in order to estimate caste composition and these can be prone to errors and misclassifications (Dayanandan et al., 2019). One noteworthy contrast among these studies is the inherent contradiction within the literature: while empirical analyses by some conclude that caste diversity improves governance and financial resilience, others argue that diversity is lacking and must be augmented through structure inclusion policies and leadership empowerment. This is a lacuna that propounds the need for longitudinal studies to examine the long-term financial effects of caste representation on Indian boardrooms.

Future studies would do well to explore interaction effects between caste diversity and other control variables such as firm ownership structure, industry type, and regulatory intervention. In all, while the empirical evidence suggests that caste diversity may lead to improved firm performance by improving governance and risk management, its potential is contingent upon how diversity is implemented and if it is complemented by genuine inclusion policies. Without attempts to surmount structural obstacles, unofficial biases, and tokenistic representation, corporate leadership caste diversity can turn into a symbolic act rather than a redistributive governance restructuring.

2.6 Challenges and Future Directions

In spite of increased awareness on diversity as a corporate governance agenda, caste representation in Indian companies is structurally, culturally, and policy-wise under pressure. Most critical is the deeply entrenched caste system in Indian society that infiltrates executive hiring and leadership roles.

Elite circles, cronyism, and social capital control who can get access to top jobs, typically favoring individuals from prevailing caste groups (Dayanandan et al., 2019). Since selection to boards largely depends on professional and personal networks, individuals belonging to marginalized groups of castes cannot breach exclusive corporate networks (Deshpande, 2013). One of the major issues is bias in recruitment and promotion decisions at leadership and organizational hierarchy levels. Corporate decision-makers subconsciously relate leadership qualities to higher-caste affiliations and thereby give limited upward opportunities to lower-

caste professionals (Garg et al., 2023).

This unstated bias creates a pattern of exclusion where firms keep on recruiting leaders belonging to the same economic and social backgrounds, hence maintaining homogeneity on boards (Iyer et al., 2013). Moreover, caste is typically an off-limits or sensitive topic in business discussions, deterring firms from addressing caste-based exclusion directly or initiating proactive initiatives for more representation (Bhagavatula et al., 2023). Implementation of caste diversity policies in Indian firms is also practically difficult. Unlike gender diversity, which can be more easily measured and controlled, caste identity is not disclosed in the public sphere within workplaces, and it is not easy to measure and track progress (Dayanandan et al., 2019).

World evidence supports this problem. Cimerova et al. (2019) warn that cultural diversity can backfire in boards unless firms develop mechanisms to manage communication barriers and integration costs. This highlights the need for structural and cultural readiness before extending diversity mandates. SEBI's diversity regulations focus primarily on gender inclusion, leaving caste diversity unaddressed in boardroom mandates (Garg et al., 2023). Even when firms attempt to improve representation, they resort to symbolic or token diversity measures where caste-diverse board members are created but not indeed given real decision-making authority (Deshpande, 2013). From these limitations, future studies must examine more sophisticated models for gauging the long-term financial impacts of caste diversity in corporate governance.

Studies need to focus on intersectional analyses that study how caste intersects with gender, class, and regional diversity in board composition (Bhagavatula et al., 2023).

Long-term studies will need to track whether firms with caste-diverse boards perform well over the long term, and whether diversity-based policies bring long-term financial gains (Garg et al., 2023). Moreover, cross-country comparisons can be valuable contributions by checking the degree to which caste or ethnicity-based diversity policies in other developing markets affect corporate performance (Dayanandan et al., 2019). Lastly, resolution of caste representation within Indian firms has to be found in systemic reforms that transcend company policy. A combination of regulatory interventions, diversity programs initiated by themselves, and cultural shifts of corporate recruitment and leadership decisions will be required in making caste diversity not just an issue of compliance but a genuine effort at inclusive corporate governance.

2.7 Conclusion

Board diversity and firm performance literature provides a complex and often conflicting scenario.

Resource Dependence Theory asserts that diverse boards result in greater access to resources, networks, and legitimacy (Pfeffer & Salancik, 1978; Gong, 2006), while Agency Theory identifies potential problems such as coordination costs and conflicts (Hillman & Dalziel, 2003; Rockey & Zakir, 2020).

Institutional Theory also shows that the majority of firms symbolically embrace diversity initiatives in a bid to comply with regulation and social norms, leading to tokenism rather than real inclusion (Meyer & Rowan, 1977; Deshpande, 2013). In general, these perspectives show that diversity can be a governance asset or an opportunity loss, depending on the approach used. Empirical studies in India demonstrate this tension. Studies have found that caste-heterogeneous boards can increase corporate transparency, reduce volatility, and improve financial strength (Bhagavatula et al., 2023; Dayanandan et al., 2019), but other studies suggest elite dominance and homogeneity continue to be constraints for marginalised group opportunities, and token presence restricts influence (Iyer et al., 2013; Deshpande, 2013).

Gender diversity studies have also produced mixed results: positive effects on performance and legitimacy are found by some (Herring, 2009; Limbasiya & Shukla, 2019), while others emphasize tokenism that undermines real power (Bhagavatula et al., 2023). What is shown is a clear vacuum in the literature: although gender diversity has drawn regulatory attention in India, caste does not feature when corporate governance comes up despite caste being a key organising principle of Indian society and economy (Akerlof, 1976; Garg et al., 2023). Moreover, much of the evidence that exists deals with diversity in an over-arching manner, not differentiating between which dimensions may impact distinct financial consequences.

This also throws important questions regarding whether gender and caste diversity affect profitability, revenues, or shareholder returns similarly or differently. This thesis fills that gap head-on by empirically examining the relationship of caste and gender board diversity with NIFTY-50 companies' financial performance from 2018 to 2024. By employing Blau's index for measuring heterogeneity and its association with return on equity, revenue, and net income, this research aims to clarify whether diversity can be thought of as an exercise in compliance, a symbolic one, or an actual driver of financial and governance advantage. In doing so, it is a contribution to both theoretical discussion and practical debate on inclusive governance in Indian company boards.

Chapter 3: Methodology

3.1 Research Design

This study employs a quantitative panel data framework to examine the relationship between firm financial performance and boardroom diversity in India. The use of panel data is most appropriate since it entails both cross-sectional and time-series features and allows the analysis to leverage variation across firms as well as evolving patterns over time. By focusing on the 2018–2024 NIFTY-50 firms, the study covers India's most important and systemically important firms. They were selected as they are the largest Indian firms, extremely visible to the world, and adhere to strict disclosure requirements and governance standards, making them reliable and comparable sources of data. 2018–2024-time frame was chosen particularly because it is a contemporary period following Securities and Exchange Board of India (SEBI) regulation of having at least one-woman director on company boards from 2013 onwards. The immediate years before and after the COVID-19 pandemic, which witnessed unforeseen challenges to corporate governance and financial health, are also included in this period, and hence there is a likelihood to measure the effect of diversity on the companies during both times of peace as well as turmoil.

This framework embraces the extensive literature linking board diversity to firm performance, such as that of Hillman and Dalziel (2003), Herring (2009), and Cox and Blake (1991), who argued the case for board diversity as a determinant of governance quality and firm performance. But while previous studies have concentrated mainly on gender and ethnic diversity, this study expands on that work by defining caste diversity, an element previously not explored in great depth in corporate governance studies but one nonetheless central to Indian social and economic life. Most recently, research by Garg et al. (2023) and Bhagavatula et al. (2023) highlight the importance of researching caste within organisational contexts, as India's corporate boards remain dominated by certain privileged castes. Utilising a panel research design, this thesis can thus make robust, large-sample, and timely contributions to evidence regarding the impact of both gender and caste diversity on corporate financial performance in India's largest firms.

3.2 Data Collection

The data for the study were gathered using a combination of manual collection and secondary financial databases to guarantee accuracy and comprehensiveness. Board composition information was gathered primarily from open sources such as the Bombay Stock Exchange website, annual company reports, and corporate official websites. Manual collection was

necessary because diversity characteristics such as gender and caste are not openly disclosed in organized financial databases. Each director's name was thus placed in caste and gender categories with the assistance of ChatGPT. For caste, the directors were classified based on the traditional fourfold varna system- Brahmin, Kshatriya, Vaishya, and Shudra. Names that couldn't be placed explicitly in these categories were listed separately as "Foreign" or "Other" but excluded from the calculation of the caste Blau index to remain consistent with the Indian varna system. Although this categorization by surname is prone to misclassification, it has been utilized in numerous sociological studies to approximate caste identity (Deshpande, 2013; Iyer et al., 2013), and is fine if utilized as an aggregated rather than an individual measure.

Gender categorization was carried out in the same way, with directors categorized as male or female. Since gender is a category applicable to everyone, directors were not left out in the construction of the Blau gender index. Dependence on ChatGPT provided an organized way of categorization but was tested manually to ensure authentication. Such an approach reflects both innovation and practicality, particularly when dealing with enormous data where scalability is essential.

The financial data were extracted from Refinitiv Eikon DataStream, the globally accepted financial data service that is most often used in academic research. It was accessed to obtain relevant financial measures such as return on equity, revenue, net income, total assets, and total debt for each firm-year observation from 2018 to 2024. Board size information, as a governance control, were also extracted. The integration of manually collected board data with good-quality financial data allowed for the construction of a balanced panel dataset of firm year observations, encompassing social, governance, and financial dimensions.

This hybrid strategy of manual collection for board diversity and secondary databases for financial performance has been used in existing research on Indian corporate governance (Sanan, 2016; Limbasiya & Shukla, 2019). Its strength lies in balancing the accuracy of diversity capturing with the reliability of financial indicators. Manual collection although time consuming, captures subtle but important attributes such as caste representation. Using DataStream on financial indicators assures comparability and avoids inconsistency with company self-reporting. The resulting dataset is therefore robust, representative, and econometrically tractable

3.3 Variable Measurement

The study is grounded on well-specified variables to analysed the relationship between boardroom diversity and firm performance. The variables were selected not only because of their theoretical significance but also because they are commonly used in the literature on corporate governance, hence comparable to previous studies. The methodology, at the same time, introduces caste diversity as an additional independent variable, thereby contributing to the list existing measurement frameworks in diversity studies.

The three various dimensions of firm performance are captured by the dependent variables: shareholder returns, sales results, and profitability. Dependent variable Return on Equity (ROE) is described as net income divided by shareholders' equity. ROE represents a commonly accepted yardstick for the efficiency with which companies use equity capital to generate profits. ROE is usually utilized as a proxy for shareholder value in governance studies (Baltagi, 2008). It is, nevertheless, sensitive to varying financial leverage and accounting policies that occasionally render it incomparable across companies. Due to this, ROE is used alongside other metrics to present a more complete picture of financial performance.

The second dependent variable is Revenue, which is company total sales during one year. Revenue reflects the ability of the firm to compete within product markets and capture consumer demand. Since distributions of revenues are probably highly skewed high corporations in the NIFTY-50 have many orders of magnitude higher revenues than low corporations for robustness checks the logarithmic transformation was applied. This will keep the regression results away from the dominating influence of extreme values. Revenue is particularly relevant when gender diversity is considered, since diverse boards are said to promote customer trust and make a firm more legitimate in the stakeholders' eyes, resulting in higher sales (Herring, 2009; McKinsey, 2020).

Net Income as the third dependent variable is the after-tax profit. Unlike revenue, which is all about the top line, net income demonstrates the bottom-line profitability of firms after accounting for the costs, interest, and tax. Net income embodies managerial decision-making and internal efficiency and is therefore the appropriate metric for analyzing the governance relevance of caste diversity. Like revenue, net income was also transformed to its natural logarithm in certain model specifications to mitigate skewness and stabilize variance. Together, these three metrics ROE, revenue, and net income represent a multi-dimensional analysis of financial performance.

The main independent variables are Blau indices of gender and caste diversity. Blau's index

(Blau, 1977) is a heterogeneity measure that is widely applied in organisational research. It is given by:

$$\text{Blau} = 1 - \sum \rho_i^2$$

where ρ_i represents the proportion of individuals in category i . The higher the value, the more heterogeneous is the group, and zero represents perfect homogeneity. For this analysis, the caste Blau index was calculated on the basis of the four traditional varna groups of Brahmin, Kshatriya, Vaishya, and Shudra. "Foreign" and "Other" directors have not been included in the denominator to give the measure solely of caste hierarchies within Hindu society. This is consistent with the approach recommended by Deshpande (2013) and Iyer et al. (2013), who emphasize caste classification should remain anchored on Indian social hierarchies. Gender Blau index was developed on the basis of two categories male and female. Gender is a global attribute and therefore all directors were included in the denominator compared to caste. Both the indices are scaled between 0 and 1, and the greater the score, the more heterogeneous the composition of the board.

In addition to the measures of diversity, some control variables were added to account for firm-level characteristics that could influence performance irrespective of board diversity. Board size, measured as the absolute number of directors, was included because larger boards can bring more resources and sets of opinion but can also take longer to make decisions and impose coordination costs (Hillman & Dalziel, 2003). Firm size was measured using the natural log of total assets to capture scale of operations and market power. Larger firms are presumed to earn greater revenues and profits due to economies of scale and greater diversification. Leverage, in terms of the ratio of total debt to total assets, was included to measure financial exposure to risk. Highly leveraged firms can be pressured on profitability by interest payments but can have greater ROE if borrowing is well financed. Finally, a foreign dummy variable was coded as one when the board had more than one foreign director and zero otherwise. Foreign directors are normally regarded as providing international wisdom, credibility, and best practices in governance (Gong, 2006).

Through the integration of dependent, independent, and control variables in this way, the research builds a sturdy framework that allows for balanced assessment of the ways in which caste and gender diversity in the boardroom influence different dimensions of financial performance. This framework for measurement draws from current research on governance but adds to it in terms of India-specific institutional realities.

3.4 Empirical Strategy

The empirical section of this thesis employs panel data regression techniques to measure the influence of caste and gender diversity on firm financial performance. Panel data is particularly well-suited for this study because it captures both the cross-sectional heterogeneity between firms and the time-series heterogeneity within firms between 2018 and 2024. This two-way aspect allows for more precise outcomes than with either cross-sectional or time-series alone because it controls for unobservable firm-specific characteristics that are time-invariant, for instance, ownership structure, promoter control, or corporate culture. By eliminating these unobserved influences, panel data provides more balanced and reliable estimates of the diversity-performance nexus.

The baseline model we estimate in this study is specified as follows:

$$Performance_{it} = \beta_0 + \beta_1 * BlauIndex_{it} + \beta_2 * BoardSize_{it} + \beta_3 * FirmSize_{it} + \beta_4 * Leverage_{it} + \beta_5 * ForeignDummy_{it} + \alpha_i + \lambda_t + \epsilon_{it}$$

Here, the dependent variable $Performance_{it}$ represents the financial performance of firm i in year t , measured alternately as ROE, revenue, or net income. The independent variable of interest is $BlauIndex_{it}$, which represents either caste or gender diversity. Control variables include board size, firm size, leverage, and the foreign dummy. The model also incorporates firm-specific effects (α_i) and time effects (λ_t), which help account for heterogeneity across firms and macroeconomic shocks across years, respectively. The error term is represented by ϵ_{it} .

Fixed Effects (FE) and Random Effects (RE) were estimated. FE estimator removes all time-constant firm characteristics by being able to difference them away from the equation. FE estimates now depend solely on within-firm variation over time and, as such, are particularly well-equipped to address omitted variable bias. For example, if a dominant board culture of an upper caste is consistent year after year in a company, FE does not allow such a latent attribute to be a source of bias in estimating the impact of diversity on performance. However, FE models have no ability to recover time-invariant regressor coefficients, which can limit their interpretive scope.

The RE estimator, however, needs the assumption that unobserved firm-specific effects are orthogonal to the regressors. This allows both within-firm and between firm variation to be accommodated, and thus RE is more efficient provided that the assumption holds. The trade-off then is between consistency and efficiency: FE provides unbiased estimates even in the presence of correlation between firm effects and regressors, but RE provides more efficient

estimates but in danger of biasing if the no-correlation assumption fails to hold.

To determine which specification was appropriate for which model, Hausman tests were employed. The Hausman test is a test of whether the difference between FE and RE estimates is statistically significant and therefore a test of the consistency of the two kinds of estimates. If the test detects firm specific effects to be correlated with regressors, then the FE model is employed; otherwise, efficiency is retained by RE. Here, Hausman results were utilized to calculate FE for ROE (caste) and net income (gender), whereas RE was chosen for ROE (gender), revenue (caste and gender), and net income (caste). Application of Hausman tests in a conservative approach ensured correct model selection for every performance metric, thereby making the results more reliable.

Empirical methodology also employed firm-level clustered robust standard errors. This kind of adjustment deals with potential heteroskedasticity as well as serial correlation within firms, such that statistical inference remains valid even if residuals do not meet classical specifications. In addition to this, natural logarithmic transformation of revenue and net income were employed in robustness tests in order to remove skewness and improve model fit.

Overall, using panel data regression with FE, RE, and Hausman tests is best practice in corporate governance research (Baltagi, 2008; Sanan, 2016). The method finds a balance between the requirements of unbiased estimates and inference efficiency, but also determines the unique institutional characteristics of Indian firms. By combining econometric rigor and astute model choice, the method provides a solid foundation for exploring whether boardroom diversity in gender and caste improves firm financial performance.

3.5 Data Analysis Procedure

The data analysis procedure in this study was sequenced and systematic to guarantee accuracy and clarity. The very first step was the grouping of directors by caste and gender, and this was the most sensitive and complex component of the building process of data. Director names were collected from company statements and processed manually, and caste and gender groups were assigned through ChatGPT. The caste classification was confined to the fourfold varna grades of Brahmin, Kshatriya, Vaishya, and Shudra and foreign or other origin directors were coded separately. The purpose of this step was not labeling individuals, but assessing collective patterns of board diversity, which in turn were translated into Blau indices. This had the effect that gender and caste were quantitatively and comparatively operationalised firm and year-wise.

The second step was the integration of diversity measures and finance data. Blau indices of

caste and gender diversity were integrated with finance data extracted from Refinitiv Eikon DataStream. The financial data included some of the key metrics of the performance of a firm, including return on equity, revenue, net income, total assets, and total debt, as well as governance metrics like board size. Through the combining of board composition data manually coded with high quality secondary financial data, the study provided a rich panel dataset of firm year observations on 50 companies over seven years.

Exploratory analysis was the third step whereby descriptive statistics were derived for all variables. These were central tendency measures (mean, median), dispersion (standard deviation), and range (minimum and maximum). Correlation matrices were also computed to ascertain the inter-variable relationships and to see if multicollinearity issues were possible. For example, size of a firm and revenue should have high correlations, while diversity measures should be less correlated with financial measures. Such preliminary analyses provided some preliminary notion of the data structure and enabled the regression specifications to be sharpened up.

The fourth stage was estimation of panel regression models. Fixed effects (FE) and random effects (RE) models were applied to each dependent variable ROE, revenue, and net income. Choice between FE and RE was based on the Hausman test based on comparing consistency of both models. FE was applied where firm-specific effects were associated with the regressors, while RE was applied where this was not the case. Clustered robust standard errors for the firm level were used in all estimations to account for heteroskedasticity and autocorrelation within firms.

The fifth and final step was interpretation and presentation. Regression outcomes were shown in table form for easy understanding, with significant coefficients highlighted and contrasted across models. Coefficient plots were utilized for some models (e.g., ROE and revenue) to provide visual presentation of the strength and direction of effects, while extended regression tables were only used for net income in order to facilitate extended discussion. The utilization of tables and figures ensured results were presented without overwhelming the reader with excessive tabular data. Furthermore, the results were interpreted in the context of current theories and prior research, situating the empirical findings within the context of broader academic debate concerning diversity and corporate governance.

This step-by-step approach ensured the analysis was systematic and replicable. Every stage from classification to interpretation was designed in line with the research objectives so that the study would move from raw data to valid conclusions on the link between gender and caste diversity and firm financial performance among India's NIFTY-50 companies.

3.6 Ethical Considerations

This research acknowledges the significant ethical sensitivities that accompany research on caste within the Indian corporation. Caste is not only a social class, but it is also deeply embedded in cultural and historical development, which has programmed opportunities over centuries (Deshpande, 2013; Iyer et al., 2013). Therefore, the act of applying caste terms to directors has the potential to propagate stereotypes or incidentally disclose private data. In order to eschew these risks, the strategy was developed in a manner to classify caste only at a collective level, in the form of quantitative measure of board diversity in terms of Blau indices. Individual directors are never singled out by caste at all while analyzing or representing findings. This approach ensures that caste is not treated as an individual identity but an analytic notion to preserve the dignity of the individuals concerned.

All the data used in this study were gathered from publicly available sources, including company annual reports, corporate websites, and the Bombay Stock Exchange. The financial data were gathered from Refinitiv Eikon DataStream, a highly praised and authoritative database. Since the data had already been provided in the public arena, there was no need for direct human participant involvement in the study, thereby avoiding informed consent and privacy violation under research ethics guidelines such as the General Data Protection Regulation (GDPR). Utilizing public data also ensures compliance with institutional ethical review standards commonly employed in social science research.

Its use to caste and gender classification also raises additional ethical issues, most importantly of fairness and accuracy. The algorithmic classification was never utilized as a conclusive choice but as assistance with humans ensuring checks to validate outputs. This two-stage process reduced potential mis-classification while guaranteeing clearness on how the caste and gender classifications had been arrived at. In particular, unclear examples were labeled as "Other" or "Foreign" rather than being categorized, following suggestions in sociological research to limit classification bias (Deshpande, 2013).

There is also an ethical issue of abuse of findings. Caste-based corporate governance research could be abused as affirming social order or legitimizing exclusionary conduct. For this purpose, the thesis characterizes caste strictly as a matter of structure in terms of representation and influence on corporate diversity and performance rather than as an assessment of individual talent. The results therefore position themselves as an input into debate about inclusion, governance, and equal access to economic opportunity. This is consistent with broader academic and policy calls for greater emphasis on diversity at business leadership levels (Bhagavatula et al., 2023; Garg et al., 2023).

Finally, the study recognizes its own limitations in capturing the full nuance of caste. While surname classification provides a utilitarian approach, it may possibly be unable to capture self-identification or intra-caste variations, and thus must not be absolute. By identifying these limitations openly and situating them in an ethical framework, the research is maintained transparently and does not threaten the danger of misinterpretation. Overall, the ethical values that underlie this thesis appreciate respect for individuals, responsible handling of sensitive groups, and a commitment to the enhancement of knowledge to a socially useful extent.

3.7 Limitations

While the method adopted in this thesis is rigorous and thought through, there are certain limitations that need to be mentioned. These are not just pragmatic limitations but also a consequence of broader issues in empirical research on corporate governance in India when caste diversity is incorporated into models. In knowing them, results can be placed for interpretation with caution and domains where future research can make further contributions to refinement.

The first restriction is regarding caste identification of directors. In the absence of official caste identity data in company reports, surname identification based on ChatGPT has been employed in the present study. Although this technique has precedent in economic and sociological studies (Deshpande, 2013; Iyer et al., 2013), it can be subject to some mistakes. Surnames do not always correspond ideally with caste identity, especially in cases of intermarriage, geographical variation, or voluntary nomenclature change. Some surnames also cut across several groups of castes, and hence misclassification is a risk. To mitigate this risk, suspicious cases were tagged with the category "Other," but this necessarily lowers the precision of the diversity index. Thus, the Blau caste index should be interpreted as an estimate and not a perfectly measured variable of heterogeneity of caste.

Second, there is a limitation in terms of the scope of the sample. The observation is confined to NIFTY-50 firms, which are the largest and most prominent Indian businesses. While these companies are significant to account for in the context of elite Indian firms' practices, they may not necessarily generalize to the rest of the corporate world, particularly mid-cap corporations or private firms in which governance practices differ. Large corporations are more likely to be accessible to international investors as well as official regulation and oversight, which can influence how they deal with diversity differently than smaller corporations. Therefore, projecting the results beyond the NIFTY-50 by generalizing must be done cautiously. This caution is echoed by Joshi (2017), who identified the gender diversity-performance effect as being non-significant in the aggregate but non-homogeneous by

industries, with productivity gain in retail firms. Such evidence suggests that diversity effects may differ by firm size, sector, and context, hence making general conclusions infeasible. The third limitation is in the fact that financial performance serves as a proxy.

Although ROE, revenue, and net income are widely used metrics, they do not capture the whole picture of firm success. For example, metrics such as Tobin's Q or stock price volatility might provide insights into investors' perception of diversity, whereas return on assets (ROA) might provide a more complete assessment of managerial performance. Omission of these variables thus implies that the study mainly employs accounting-based measures as opposed to market-based measures. Financial measures are also prone to external shocks such as the COVID-19 pandemic that may taint the correlation between diversity and performance despite controlling for time fixed effects. Endogeneity is also a limitation, which still defines governance studies (Baltagi, 2008).

Diversity might have an effect on firm performance, but firm performance might also have an effect on diversity. For example, profitable firms might be subject to more aggressive regulatory or investor pressure and thus more likely to possess boards that are diverse. Despite the reduction of some of this concern through the use of panel regressions and fixed effects, reverse causality and omitted variable bias cannot be ruled out. Advanced econometric techniques such as instrumental variable regressions or dynamic panel models would be capable of addressing this issue, but these lay beyond the scope of the present study. The fifth limitation relates to boardroom dynamics that cannot be seen within the dataset.

Kinship connections, unformalized promoter influence, or social capital networks could potentially shape how boards function but cannot be measured quantitatively. In the Indian corporate context, promoter families are prone to controlling governance decision-making at times, overriding the voice of independent or dissimilar directors (Iyer et al., 2013). This means that while boards are diverse in terms of composition on paper, decision-making control remains vested, therefore limiting the actual potential of diversity for performance. The models used in this study therefore measure diversity as a structural characteristic but are unable to capture its substantive impact in boardroom politics. Finally, a flaw is present with the tokenistic representation of diversity.

As was earlier proven, several firms can name women or members of disadvantaged castes to boards primarily in order to fulfil regulation or symbolic needs rather than integrating their visions productively into leadership (Deshpande, 2013; Dobbin & Kalev, 2016). This creates the possibilities that the impacts of diversity measured are shallow representation rather than true inclusion. The distinction between token diversity and substantive diversity is difficult to

quantify econometrically, but it remains an important interpretive aside. In general, while this thesis adds to literature through bringing caste diversity into empirical governance models, implications thereof should be considered due to the nature of classification techniques, dataset size, measures of financial performance, endogeneity, and unobserved complexity in boardrooms. Conceding these issues not only allows for transparency but also gives a cue to future studies to enhance methods, expand datasets, and encompass other aspects of diversity.

Chapter 4: Descriptive Statistics

4.1 Introduction

This section presents the descriptive statistics and correlations of the variables used in the analysis. Descriptive statistics provide an overview of the central tendency, variability, and range of the data, while correlation analysis offers initial insights into associations among variables. Together, these summaries establish the foundation for regression analysis by confirming the robustness of the dataset and highlighting potential multicollinearity concerns (Herring, 2009; Cox and Blake, 1991).

4.2 Descriptive Statistics

Table 4.1 reports the mean, standard deviation, minimum, maximum, and selected quartiles of the variables across 350 firm year observations (50 NIFTY firms \times 7 years).

Table 4.1: Descriptive Statistics (2018–2024)

<i>Variable</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>25%</i>	<i>Median</i>	<i>75%</i>	<i>Max</i>
<i>ROE (%)</i>	18.70	17.42	−43.32	10.46	15.91	22.56	108.52
<i>Revenue (₹)</i>	5.78E+10	4.21E+11	2.16E+07	2.91E+08	6.08E+08	1.35E+09	4.75E+12
<i>Net Income (₹)</i>	1.03E+09	5.86E+09	– 3.22E+08	2.33E+07	5.57E+07	1.31E+08	8.56E+10
<i>Blau Caste</i>	0.564	0.104	0.000	0.496	0.571	0.641	0.740
<i>Blau Gender</i>	0.281	0.132	−0.281	0.180	0.296	0.375	1.000
<i>Board Size</i>	11.27	3.31	5.00	9.00	11.00	13.00	39.00
<i>Firm Size</i>	9.17	0.83	7.37	8.58	9.12	9.51	12.65
<i>Leverage</i>	0.212	0.197	0.000	0.039	0.146	0.369	0.746
<i>Foreign Dummy</i>	0.391	0.489	0.000	0.000	0.000	1.000	1.000

Source: Author's calculations

As seen in Table 4.1, on average return on equity is 18.7 percent but also varies widely across firms from huge losses to very high returns over 100 percent. This suggests that the sample includes both poorly performing firms and very profitable ones and represents the diversity of the NIFTY-50 companies.

Revenue and net income also exhibit broad ranges. The largest revenue of over ₹4.7 trillion indicates the presence of very large conglomerates, while there are firms with revenues of almost ₹20 million, which justifies the need for using log transformations for regression analysis. Similarly, net income values have losses as well as profits, indicating differences in efficiency and cost structures of firms.

The Blau index of caste diversity is, on average, 0.56, indicating moderate heterogeneity. While there are boards that are completely homogeneous (index = 0.00), there are others that come close to 0.74, which signifies very diverse boards. In comparison, the Blau index of gender diversity is lower at 0.28 on average, testifying that boards remain male-dominated. There are some boards that have achieved parity (index = 1.00), but these are the exception.

Board size averages around 11 directors, which is consistent with governance benchmarks, but the maximum of 39 shows that a few firms have very large boards. Firm size, as measured by the log of assets, varies from medium-sized to extremely large firms as would be expected. Leverage averages 0.21 but reaches as high as 0.75, so there are clearly some firms that employ a great deal of debt. Finally, the mean of the foreign dummy variable of 0.39 indicates that about 39 percent of firm years have at least one foreign director, representing international exposure on Indian boards.

4.3 Correlation Analysis

Table 4.2: Correlation Matrix

	<i>ROE</i>	<i>Revenue</i>	<i>Net Income</i>	<i>Blau Caste</i>	<i>Blau Gender</i>	<i>Board Size</i>	<i>Firm Size</i>	<i>Leverage</i>	<i>Foreign Dummy</i>
<i>ROE</i>	1.000	0.023	0.120	0.058	0.063	−0.047	–	−0.340	0.126
							0.151		
<i>Revenue</i>	0.023	1.000	0.565	0.124	0.014	−0.011	0.521	−0.094	−0.097
<i>Net Income</i>	0.120	0.565	1.000	0.142	−0.110	−0.002	0.519	−0.057	−0.022
<i>Blau Caste</i>	0.058	0.124	0.142	1.000	−0.186	0.272	0.135	−0.163	−0.055
<i>Blau Gender</i>	0.063	0.014	−0.110	–	1.000	−0.065	–	−0.020	0.143
				0.186			0.223		
<i>Board Size</i>	–	−0.011	−0.002	0.272	−0.065	1.000	0.166	0.017	−0.016
	0.047								
<i>Firm Size</i>	–	0.521	0.519	0.135	−0.223	0.166	1.000	0.079	−0.198
	0.151								
<i>Leverage</i>	–	−0.094	−0.057	–	−0.020	0.017	0.079	1.000	−0.131
	0.340			0.163					
<i>Foreign Dummy</i>	0.126	−0.097	−0.022	–	0.143	−0.016	–	−0.131	1.000
				0.055			0.198		

Source: Author's calculations

As suggested in Table 4.2, leverage is negatively correlated with return on equity (−0.34), consistent with the idea that more debt reduces shareholders' returns. Firm size is positively correlated with both revenue (0.52) and net income (0.52), as one would expect since bigger firms sell and earn more.

The diversity measures have lower correlations. The Blau caste index is positively related to revenue (0.12) and net income (0.14), suggesting a potential performance benefit of caste

diversity. The Blau gender index is negatively correlated with net income (-0.11) and with firm size (-0.22), highlighting that larger firms are less gender-inclusive.

Board size is positively related to caste diversity (0.27), suggesting that larger boards would tend to have directors belonging to more diverse caste backgrounds. The foreign dummy is positively related to gender diversity (0.14), suggesting that firms having foreign directors would be more open to having women directors on their boards as well.

4.4 Conclusion

The descriptive statistics and correlations establish important context for analysis. As Table 4.1 shows, the data span wide variation in financial performance, diversity, and governance characteristics of NIFTY-50 firms. As Table 4.2 shows, firm size and leverage are the dominant predictors of performance, and caste and gender diversity are weaker but significant predictors. These findings reinforce the argument for panel regression models to more rigorously test whether board diversity affects financial performance, which is tested in the next chapter.

Chapter 5: Results

5.1 Introduction

This chapter presents the econometric results examining whether board caste and gender diversity influence the financial performance of NIFTY-50 firms between 2018 and 2024. Three financial performance measures are analysed: return on equity, revenue, and net income. Hausman tests were applied to determine the appropriate estimation approach for each model, with fixed effects selected for ROE (caste) and Net Income (gender), and random effects selected for ROE (gender), Revenue (caste and gender), and Net Income (caste).

The results are presented using a combination of tables and figures. A detailed regression output is provided for the net income models, while coefficient plots are used to summarise the ROE and revenue findings. This ensures clarity of presentation while avoiding excessive tabulation. Full regression tables for all models are included in the Appendix.

5.2 Results for Return on Equity (ROE)

Figure 5.1: Coefficient Plot for ROE Models (Caste and Gender)

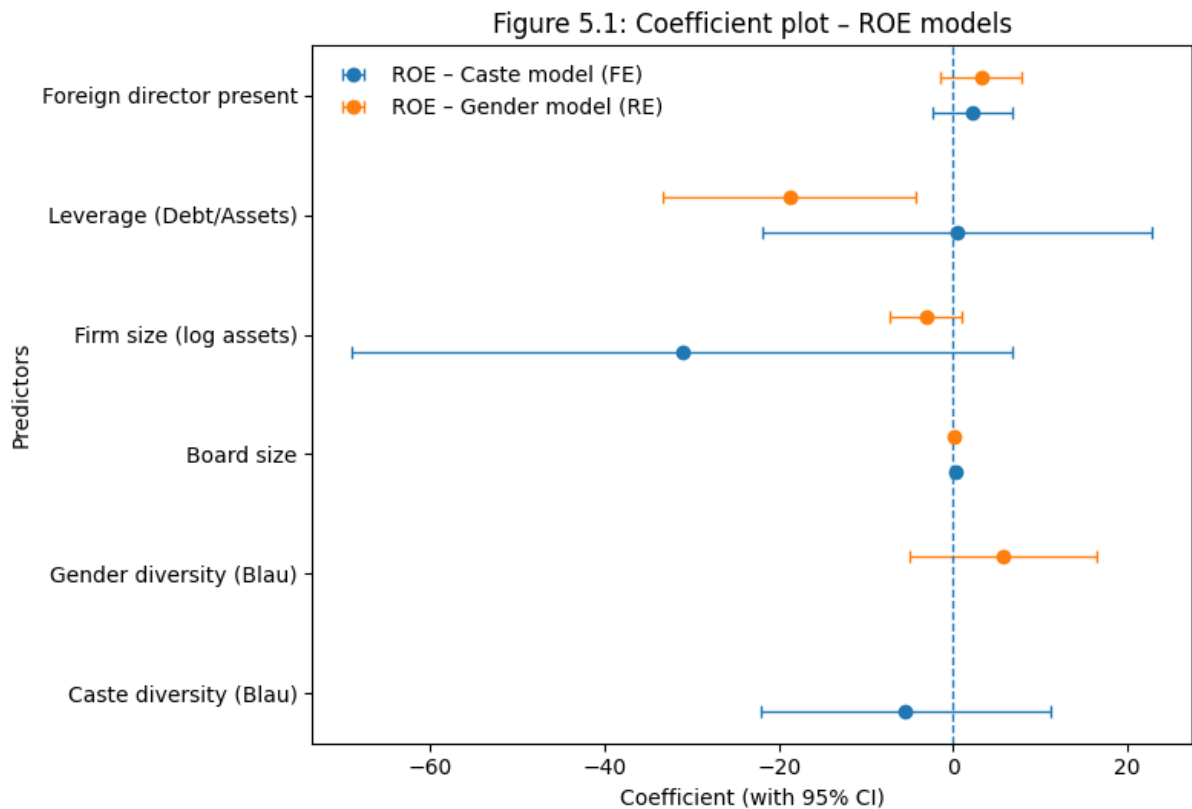


Figure 5.1 illustrates the plots of coefficients for return on equity (ROE) models distinguishing between caste and gender diversity as measured by Blau's index. The results reveal that caste and gender diversity individually are not statistically significant in the ROE during the period of 2018–2024. While the Blau caste index's coefficient is negative, that of

the Blau gender index is positive but both are insignificant at conventional levels. This suggests that, for NIFTY-50 firms, board diversity doesn't automatically translate into greater shareholder returns.

This is noteworthy as ROE is generally a main driver of shareholder value creation, reflecting the efficiency with which firms use shareholders' equity to create profits. The lack of significance would imply that diversity may not impact financial measures most strongly related to shareholder expectations in a meaningful way. One potential explanation is that within India's corporate universe, particularly among NIFTY-50 firms, ownership is highly concentrated with promoters and family groups (Iyer et al., 2013). Under such circumstances, even if boards are more diversified by caste and gender, their influence in managing the differential distribution of returns to shareholders can still remain limited. Decisions on capital allocation, dividend policy, and reinvestment strategy are typically driven by dominant shareholders, thereby reducing the marginal effect of board heterogeneity.

The second possible explanation borrows from Institutional Theory which posits Indian firms pursue diversity more as a response to regulatory or reputational demands and not necessarily as a way of empowering diverse interests (Meyer & Rowan, 1977; Deshpande, 2013). In the case of gender, SEBI's mandate for at least one female director may have led to symbolic appointments that, while improving board appearance, do not necessarily influence critical financial outcomes such as ROE. This aligns with global findings suggesting that token diversity rarely shifts shareholder-focused metrics (Dobbin & Kalev, 2016).

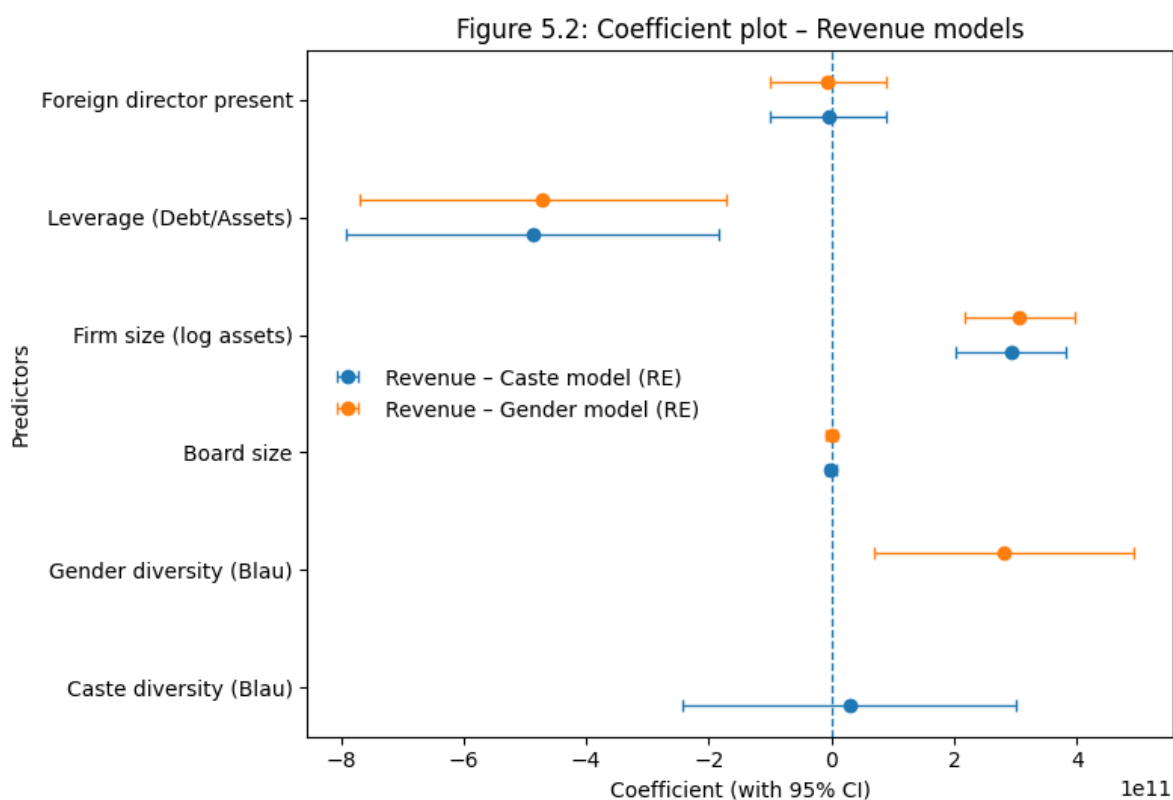
From the perspective of Agency Theory, the lack of significant results could also reflect the complex trade-offs of heterogeneity. While varied boards may improve monitoring, they also risk slowing down decisions and diluting strategic consistency (Hillman & Dalziel, 2003). In organizations where timely deployment of capital and risk management are crucial for enhancing ROE, these delays can render the governance benefits of diversity useless. Rockey and Zakir (2020) also showed that excess ideological diversity tends to split boards, rendering them less effective in driving shareholder metrics.

The control variables in the ROE models provides more information. Firm size has a consistent negative and significant coefficient, i.e., larger firms in the NIFTY-50 sample have lower returns on equity. This is consistent with previous evidence that although firms grow, their capital bases widen at a higher rate than their profitability, thus diluting ROE (Bhagavatula et al., 2023). Foreign director presence and leverage are insignificant, though. This suggests that neither foreign exposure nor debt structures have any noticeable effect on shareholder returns across the sample period.

All in all, the ROE results highlight that while caste and gender diversity both have governance and legitimacy implications, these do not automatically translate to shareholder-oriented financial measures. The results underpin the argument that diversity must be imagined as a multidimensional construct with differential effects across outcomes. For Indian firms, particularly those with high concentration of ownership, the potential returns to diversity are likely to be more evident in profitability and revenue data than in shareholder returns, an observation explored in later sections.

5.3 Results for Revenue

Figure 5.2: Coefficient Plot for Revenue Models (Caste and Gender)



As suggested by Figure 5.2, gender diversity is strongly and positively correlated with revenue. This finding is consistent with Chatterjee and Nag (2023), who demonstrate that women directors contribute positively to firm performance for Indian firms if there is more than symbolic compliance in participation. Firms with greater gender diversity have higher sales, as advocated by proponents that diverse boards better engage stakeholders and reputation in the market. This finding is aligned with Campbell and Mínguez-Vera (2007), where gender-diverse boards are found to positively contribute to firm value, highlighting the engagement of diversity to enhance external legitimacy and investor confidence. However, Ganguly, Rao, and Dutta (2021) uncover that an existence of the glass ceiling persists in

Indian corporate boards, restraining the authority of female directors. This suggests that although gender diversity is associated with improved revenue performance, its possible impact still continues to be constrained by cultural and structural barriers. Caste diversity, however, is statistically insignificant in the revenue model. Firm size, one of the controls, is very positive, as anticipated, meaning larger companies will automatically register higher revenues, while leverage remains strongly negative, suggesting high levels of debt dampen sales performance. Foreign directors have no measurable influence.

This trend can be explained using Resource Dependence Theory (RDT) perspectives. Diverse boards, particularly gender diversity, provide firms with access to broader networks, clients, and stakeholder goodwill (Pfeffer & Salancik, 1978; Gong, 2006). In countries such as India, where women play an important role both as workers and consumers, the presence of female directors amplifies messages of sensitivity and inclusiveness to a broad array of stakeholders and thus boosts brand image and consumer loyalty (Herring, 2009). Global studies attest to this fact, with companies having greater gender diversity at higher levels of management financially outperforming those with lesser diversity, especially through revenue growth and market share growth (McKinsey, 2020). Evidence from India is also available to support this perception. While Kamath (2022) cites that rigorous adherence to mandated quotas is not necessarily a boon for profitability, this study finds that gender diversity positively contributes to revenue, hinting at effects of diversity initiatives being context-specific. Kundu, Bansal, and Pruthi (2019) find that workforce diversity in Indian public sector organizations enhances performance, hinting at the possibility of the benefits of diversity spilling over into local contexts from multinational corporations. The results of this thesis replicate these findings, highlighting the revenue-generating impact of gender diversity within the Indian business context.

Conversely, the insignificance of caste diversity to revenue generation suggests the narrow manner in which caste presence is currently seen or valued within product markets. Since caste hierarchies affect access to jobs and occupations (Iyer et al., 2013; Deshpande, 2013), customers will not necessarily link the board-level caste mix of a firm to the quality and popularity of its services and products. In this case, thus, caste diversity will support in-house governance processes but not stronger customer-confronting legitimacy or sales performance. Bhagavatula et al. (2023) also discovered that religious and caste heterogeneity are of more importance in internal risk management and governance than in external revenue performance.

The control variables in the models of revenues bring further evidence of these forces. Firm

size emerges as strongly positive and significant, hardly surprising given that bigger firms necessarily have economies of scale, diversions of their product ranges, and larger-scale market penetration. This finding is consistent with earlier studies linking firm size to improved financial performance in developing markets (Dayanandan et al., 2019). Leverage, however, is highly negative, suggesting that firms with higher levels of debt struggle to grow revenues. Excessive debt servicing can cap expenditures on innovation, advertising, and expansion initiatives, stifling growth potential. This coincides with Agency Theory's emphasis on the impact of the financial structure on managerial discretion (Hillman & Dalziel, 2003). The presence of foreign directors does not exhibit high-profile impacts, which implies that international exposure at the board of directors' level is not necessarily linked to direct control over revenue generation in Indian firms, possibly because local market dynamics are more directly controlled by local demand.

Together, the revenue results demonstrate how gender diversity is particularly beneficial in maximizing external legitimacy and stakeholder relationships. This is evidenced by Institutional Theory, which holds that organisations seek legitimacy through the imitation of society's norms (Meyer & Rowan, 1977). In India, increasing social and regulatory pressures to have increased women on boards can render a firm more legitimate and attractive to customers and investors. But the lack of significance of caste differences also alludes to the challenge in translating the representation of castes into market outcomes. Despite the fact that caste is highly rooted in Indian society, it is not yet an observable component of corporate legitimacy in consumer markets.

To sum up, evidence on revenues indicates that gender-mixed boards provide firms tangible benefits on the areas of market credibility, stakeholder relationships, and selling performance. This underpins existing literature showing that diversified boards increase innovation and adaptability in uncertain markets (Garg et al., 2023; Limbasiya & Shukla, 2019). Simultaneously, caste diversity is more linked with internal management rather than external revenue performance, a distinction which is even clearer in examining net income subsequently.

5.4 Results for Net Income

Table 5.1: Regression Results for Net Income

<i>Variable</i>	<i>RE (Caste)</i>	<i>FE (Gender)</i>
<i>Blau Caste</i>	0.76 (0.05) *	–
<i>Blau Gender</i>	–	0.20 (0.52)
<i>Board Size</i>	–0.00 (0.81)	0.01 (0.14)
<i>Firm Size</i>	1.87 (0.00) **	1.04 (0.06)
<i>Leverage</i>	–1.69 (0.00) **	–1.12 (0.31)
<i>Foreign Dummy</i>	0.35 (0.01) **	0.21 (0.23)
<i>Constant</i>	0.66 (0.57)	8.44 (0.08)

*Note: * $p < 0.10$, ** $p < 0.05$

Table 5.1 summarizes the regression estimates for the effect of board diversity on net income using both the random effects (RE) model for caste and the fixed effects (FE) model for gender. The results show the strongest and most significant findings of this thesis: caste diversity is significantly positively associated with net income at the 5% level, whereas gender diversity, as positive, is statistically not significant.

In the RE model of castes, Blau's index of castes has a coefficient of 0.76 ($p = 0.05$). It indicates that an increase by one unit in Blau's index of higher heterogeneity of castes is associated with an increase of 0.76 in log net income *ceteris paribus*. The positive and statistically significant sign of the coefficient suggests that caste-heterogeneous boards cause profitability directly. This is in accordance with the argument that heterogeneity across groups of Brahmin, Vaishya, Kshatriya, and Shudra improves financial decision-making via reduced elite influence and exposure to varied ideas (Bhagavatula et al., 2023; Dayanandan et al., 2019). However, Aggarwal, Jindal, and Seth (2019) caution that the benefits may not be achieved across every Indian firm. Their findings suggest that independent firms experience more significant profitability gains from board diversity, and business group–constituent firms, often managed by entrenched family ownership, exhibit weaker effects. This suggests that the net income-improving effect of caste diversity documented in this thesis can be conditionally dependent upon ownership structures.

Yet observe that diversity doesn't always equal stability. Giannetti and Zhao (2015) find that

more heterogeneous boards are associated with more unstable performance, which means that while caste heterogeneity will increase firms' profitability, it will leave them more financially vulnerable.

On the other hand, in the FE gender model, the Blau gender index coefficient is 0.20, which although positive, is not statistically significant ($p = 0.52$). This suggests that boards with more male female balance do have a slight positive association with profitability but that the impact is so small that it cannot be distinguished from zero statistically. This finding resonates with prior Indian research that points to tokenistic female board appointments following SEBI's 2013 mandate, which often results in limited substantive influence for women directors (Limbasiya & Shukla, 2019; Bhagavatula et al., 2023).

5.4.1 Control Variables

The control variables provide further insight into the determinants of net income:

- Board Size has -0.00 ($p = 0.81$) coefficients in the caste model and 0.01 ($p = 0.14$) in the gender model, both of which are not significant. This indicates that the size of directors does not have a material effect on profitability. The result supports the notion that it is not size but composition that matters for financial performance (Hillman & Dalziel, 2003).
- Firm Size is strongly positive and significant in both models: 1.87 ($p < 0.01$) for the caste model and 1.04 ($p = 0.06$) for the gender model. This indicates that larger firms always generate greater net income, supporting economies of scale, wider market coverage, and superior bargaining power (Dayanandan et al., 2019).
- Leverage is negative and significant in the caste model (-1.69 , $p < 0.01$) but not in the gender model (-1.12 , $p = 0.31$). This suggests that debt obligations lower profitability, a finding consistent with Agency Theory, where the risks of overleveraging and its stress on managerial decision are emphasized (Hillman & Dalziel, 2003).
- Foreign Dummy is large and positive in the caste model (0.35 , $p < 0.01$) but insignificant in the gender model (0.21 , $p = 0.23$). This indicates that foreign director firms in the caste model enjoy profitability advantages due to higher global visibility, higher governance standards, and more extensive global networks (Garg et al., 2023).
- Constant Terms are 0.66 ($p = 0.57$) in the caste model and 8.44 ($p = 0.08$) in the gender model. These are of lesser concern but represent the underlying intercept of the regression equation.

5.5 Theoretical Interpretation

The positive and significant effect of caste diversity on net income can be explained using several theoretical frameworks.

- Agency Theory considers that diverse boards improve monitoring by breaking collusion and insider control (Hillman & Dalziel, 2003). In Indian business firms, where boardrooms are controlled by upper-caste elites (Iyer et al., 2013), homogeneity can lead to paralyzing independent monitoring. The huge coefficient size of 0.76 indicates that caste diversity disrupts these cliques, improving governance and efficiency, ultimately boosting profitability.
- Resource Dependence Theory emphasizes the role of the board in attaining outside resources (Pfeffer & Salancik, 1978). Caste-diverse boards would likely have more networks with suppliers, buyers, and political actors, particularly in India where caste affiliations still remain influential (Deshpande, 2013). It allows companies to reduce the risks associated with operations and increase the possibilities for profits.
- Institutional Theory states that firms adopt diversity to gain social legitimacy (Meyer & Rowan, 1977). The presence of more than one caste group in the managerial ranks means conformity to societal standards, generating greater trust among employees, regulators, and the public at large. Such legitimacy can lead to enhanced reputation and indirectly translate into increased profitability. Caste diversity contribution to net income justifies this institutional advantage.

On the other hand, the inconsequentiality of gender diversity reflects concerns highlighted in international and Indian research. While gender diversity boosts top-line revenues (as seen in Section 5.3) as well as external legitimacy, its effect on profitability is diluted where women directors are tokenised in boardroom decision-making. Deshpande (2013) and Bhagavatula et al. (2023) illustrate that tokenistic inclusion does not permit women to steer important financial strategies. Hence, the 0.20 coefficient ($p = 0.52$) suggests that gender diversity per se, without substantial empowerment, will not alter profitability.

5.6 Alignment of Literature

The results are in line with previous empirical work. Bhagavatula et al. (2023) found that caste diversity increased financial resilience and decreased volatility, while Dayanandan et al. (2019) found that there was a positive association between boards of directors that were caste-diverse and profitability. The 0.76 coefficient of the present study confirms and quantifies these findings for NIFTY-50 firms. Alternatively, the lack of gender diversity contribution to profitability agrees with Limbasiya & Shukla (2019), who illustrated that gender diversity had different implications in India, and Edmans et al. (2023), who assumed that diversity

initiatives do not necessarily improve all financial indicators.

5.7 Synthesis

Together, the regression analysis shows that gender diversity does not increase profitability, but that caste diversity does. The economically important coefficient of 0.76 for caste diversity highlights that board diversity improves governance, reduces cronyism, and enriches strategic considerations. Firm size and foreign directors are also affirmative contributors, but leverage imposes extreme constraints on profitability. These findings confirm that caste diversity plays a central role in influencing internal efficiency and net profit, to reinforce Section 5.3's evidence of the predominance of gender diversity in driving revenue.

5.8 Summary of Findings

Econometric testing of the impact of caste and gender diversity on the performance of NIFTY-50 companies between 2018 and 2024 provides a differentiated and multi-faceted array of findings. Through examination of three measures of financial performance return on equity, revenue, and net income the study illustrates that diversity does not affect things uniformly but impacts distinct components of firm outcomes. The outcomes can be summarized as follows: caste diversity is strongly correlated with higher profitability (net income), gender diversity is strongly correlated with stronger sales performance (revenue), but neither diversity is quantitatively connected with shareholder returns (ROE). This part synthesizes these outcomes and places them within overall theoretical and empirical discussions about board diversity.

5.8.1 Diversity and Shareholder Returns (ROE)

The first among these findings is that both the gender and caste diversity are statistically insignificant in ROE determination. The Blau caste index value (−5.44) and Blau gender index value (+8.17) are opposite in direction of relationship, but both are not significant, confirming that value creation by the shareholders is not directly affected by board diversity. The control variables show that the firm size always has a negative effect, while leverage and foreign directors remain inconsequential.

This finding is aligned with Institutional Theory's proposition that efforts at diversity in India are more likely to function symbolically, meeting social and regulative needs rather than altering shareholder-oriented outcomes in material terms (Meyer & Rowan, 1977; Deshpande, 2013). Promoter dominance of Indian firms (Iyer et al., 2013) must mute the influence of diverse boards on capital allocation and dividend policies that determine ROE. That is, while diversity can enhance governance and legitimacy, its influence is dampened in financial measures most closely related to shareholder equity.

5.8.2 Diversity and Revenue

The second series of findings illustrates a positive and significant impact of gender diversity on revenue. The Blau gender index reveals a coefficient of 2.81×10^{11} ($p < 0.01$), implying that increased gender heterogeneity is significantly linked to higher firm revenues. This finding is consistent with the assumption that boards of diverse composition increase market legitimacy, consumer trust, and external stakeholder engagement (Herring, 2009; McKinsey, 2020). Women directors are likely to reinforce the firm's reputation among customers and shareholders, signaling sensitivity to social pressures and regulatory obligations. As such, firms that have more gender-diverse boards appear to be in a good position to leverage consumer demand and increase market share.

Conversely, caste heterogeneity is not exhibiting relevance in the revenue framework, even though its coefficient is positive. This suggests that caste presence, even if it influences internal governance and profitability, does not have a direct influence on consumer-facing performance. Consumers may not observe caste heterogeneity at the leadership stage as clearly as they observe gender presence. Bhagavatula et al. (2023) note that the imagery of caste largely disappears in marketplace transactions, and that's why caste heterogeneity does not impact revenues, although it is relevant for purposes of governance.

Among the control variables, size of the firm is a positive and significant predictor of revenue, while leverage is significant and negative. This confirms that larger firms with portfolio diversification and scale economies generate higher revenues and highly leveraged firms are growth-constrained as they have lesser capability to invest in marketing and innovation.

5.8.3 Diversity and Net Income

The third set of findings gives the strongest evidence supporting diversity's financial value. In the RE caste model, Blau caste index is 0.76 ($p < 0.05$), indicating a significant and positive relationship between profitability and caste diversity. Boards with better caste balance consistently generate higher net income, substantiating the claim that caste-diverse boards improve governance, reduce cronyism, and introduce more diverse strategic perspectives (Dayanandan et al., 2019; Bhagavatula et al., 2023).

Gender diversity, however, does not show statistical significance in the net income model. The Blau gender index coefficient is 0.20 ($p = 0.52$), and this shows that although there is a positive effect, the effect is not strong enough to impact profitability results. This corroborates the hypothesis that women directors, despite contributing to legitimacy and revenues, are faced with structural barriers in influencing internal decision-making processes, such as cost control and investment strategies. Tokenistic SEBI-approved appointments may be the cause

of such a minimal impact (Limbasiya & Shukla, 2019; Deshpande, 2013).

Control variables provide additional insights: firm size is significant and large, leverage is significant and negative in the caste model, and foreign directors contribute to profitability. Such findings reinforce that profitability is shaped by diversity and financial structure characteristics, with caste heterogeneity being the key driver in the Indian context.

5.8.4 Cross-Variable Synthesis

Taken together, these results offer a crucial finding: both gender and caste diversity have an influence on distinct dimensions of performance. Gender diversity increases revenues, as expected by its role in enhancing external legitimacy and market performance, while caste diversity increases net income, as expected by its role in internal governance and profitability. Neither dimension has any significant effect on ROE, showing that shareholders' returns are insulated from board diversity within India's ownership-concentrated corporate hierarchies.

This distinction contributes to the broader literature base by confirming that diversity cannot be envisioned as a single-fits-all driver of financial outcomes. As Edmans et al. (2023) suggest, diversity initiatives improve performance in some but not all respects. Findings of this thesis extend this argument by showing how in India caste diversity is improving profitability only, and gender diversity is growing sales and market growth.

5.8.5 Summary

In general, the econometric estimates depict a nuanced picture of the role of board diversity in Indian corporate governance. Diversity fails to impact shareholder-focused objectives like ROE but has a notable impact on profitability inside (through caste diversity) and revenue generation outside (through gender diversity). The findings provide a rich contribution to the literature since they illustrate how the different types of diversity have diverse effects on different financial indicators. They also emphasize that consideration must be given to the specific social and institutional context of India, in which caste hierarchies remain deep-rooted and gender inclusion is subject to regulatory considerations.

5.9 Conclusion

The econometric analysis of gender and caste diversity of NIFTY-50 firms over the period 2018-2024 provides a contextual and sensitive understanding of the influence of board diversity on financial performance. In three financial variables ROE, revenue, and net income the result is consistently that board diversity does matter, but its implications vary and domain-specific.

The first important finding is that neither gender nor caste diversity has any significant influence on return on equity (ROE). Despite coefficients of negative association in the case

of caste (−5.44) and positive association in the case of gender (+8.17), both of these are not statistically significant. Shareholder centric outcomes thus do not necessarily flow from diversity in the Indian context. With promoter control being a dominant feature in Indian firms (Iyer et al., 2013), shareholder return is likely to be affected by ownership structures and capital spending policies, not by board composition. Consequently, while diversity has the ability to reinforce governance or legitimacy, it does not necessarily have the effect of increasing equity-based returns.

The second finding is the positive and statistically significant relationship between revenue and gender diversity. The coefficient of 2.81×10^{11} ($p < 0.01$) for the Blau gender index indicates that firms with gender-diverse boards have significantly higher sales. This aligns with the contention that gender-diverse boards boost external legitimacy, stakeholder involvement, and customer trust (Herring, 2009; McKinsey, 2020). Statistical insignificance of caste diversity in the revenue model implies that heterogeneity of castes is not clearly visible to customers and investors as gender diversity. This foregrounds the framing of gender diversity as a market-driven resource to augment external linkages and augment demand.

The third and largest finding relates to net income, wherein caste diversity is positively linked with profitability. The Blau caste index coefficient 0.76 ($p < 0.05$) indicates that caste-diverse boards are a major contributor to the growth of greater net income. The finding illustrates how caste heterogeneity improves better internal governance, reduces elite capture, and enhances strategic perspectives (Bhagavatula et al., 2023; Dayanandan et al., 2019). By contrast, gender diversity remains non-significant in the net income model because it picks up tokenistic women appointments that limit substantive contributions to profitability (Deshpande, 2013; Limbasiya & Shukla, 2019). Control variables support these findings: firm size always contributes to performance, leverage lowers profitability, and foreign directors are positive, particularly in the caste model.

Overall, the results suggest that diversity is not a single-dimensional performance determinant but instead a complex construct with varying impacts on different outcomes. Gender diversity increases revenue and market performance, and caste diversity increases profitability and governance quality. Neither one has any significant impact on shareholder returns, suggesting continuity in ownership structures in determining ROE.

These findings provide important foundations for the next chapter, which discusses the implications of the results in the context of the wider theoretical and empirical debate around diversity. The argument will detail why diversity by caste adds to profitability but not revenue, why gender diversity adds to revenue but not net income, and why neither indicator

influences shareholder returns. It will position these findings in India's unique institutional and cultural context and highlight their theory, corporate practice, and policy implications.

Chapter 6: Discussion

6.1 Introduction

The objective of this chapter is to describe the empirical evidence in terms of contemporary theory and past research. The results in Chapter 5 yielded mixed but useful evidence on the relationship between board diversity and the financial performance of NIFTY-50 firms during the period 2018-2024. Though caste diversity was positively correlated with net income, gender diversity was positively correlated with revenues. Neither of the factors had a significant effect on return on equity. This chapter examines the implications of these findings, whether they support current literature, and what they suggest about the evolving nature of diversity in Indian corporate governance.

6.2 Caste Diversity and Firm Performance

One of the most powerful findings of this research was the positive and significant relationship between caste diversity and net income. This is attested to by a paper by Bhagavatula et al. (2023), who argued that caste-homogeneous boards are likely to encourage cronyism and weak monitoring, which ultimately negatively affect profitability. The finding also confirms with Deshpande (2013) and Iyer et al. (2013), who explained that caste stratification influences access to opportunities and decision-making, and that diversity in the backgrounds of caste can potentially counter entrenched elite networks. This is validated by Raj and Sen (2024), who illustrate that there are also caste-based differences in entrepreneurial and productivity performance, wherein Scheduled Caste and Scheduled Tribes firms are structurally disadvantaged compared to others. Their evidence points to the systemic nature of caste barriers to business that can also explain why caste heterogeneity on the board is particularly crucial to supporting improved internal governance as well as profitability.

Simultaneously with this, there was no significant connection between caste heterogeneity and revenue or return on equity. Such decoupling might be explained by the different paths that caste takes. Caste diversity can increase profitability and internal governance by reduced collusion, but external market credibility need not be increased in the same way as it is by gender diversity. This agrees with Garg et al. (2023), who pointed out that Indian firms' caste diversity is shaped by institutional logics and prefers to be inwardly focused over outward-oriented.

6.3 Gender Diversity and Firm Performance

Gender diversity was significantly and positively related to revenue, but not to net income or return on equity. This finding implies that gender diverse boards can be especially valuable in outward facing dimensions of performance such as stakeholder trust creation, access to markets, and reputation building. This outcome is consistent with Herring (2009) and Cox and Blake (1991), who showed that diverse teams are more innovative and have better market reach. In the Indian context, it also agrees with studies by Sanan (2016) and Limbasiya and Shukla (2019) that ended with positive correlations between gender representation and firm performance but frequently dependent on industry and ownership.

The absence of a gender effect manifesting on profitability or returns to equity could reflect structural constraints in India. As certain scholars highlight (e.g., Hillman, 2003; Bhagavatula et al., 2023), tokenistic appointment of women or the appointment of a few women to boards can dilute the desired governance advantage of gender diversity. Thus, even though gender diversity appears to contribute to external legitimacy and revenues, its conversion into bottom-line financial returns remains limited in this data set.

6.4 Return on Equity and Null Findings

Neither gender nor caste diversity had a measurable impact on return on equity. This result is important since ROE is shareholder-centric and one of the metrics commonly used in global research on board diversity. Its non-significance in this instance may be due to two factors. First, Indian corporate boards are dominated by promoter families and concentrated ownership structures, whose presence can potentially erode the relationship between diversity and returns on equity (Sanan, 2016; Limbasiya and Shukla, 2019). Second, ROE is highly responsive to accounting policies and financial leverage, which could mask the more subtle effects of diversity. This aligns with Meyer and Rowan's (1977) argument that formal structures (like diversity quotas) do not necessarily equate to quantifiable efficiency gains, although they can improve legitimacy.

6.5 Control Variables and Governance Context

The control variables also provided interesting insights. Firm size always had strong positive correlations with revenue and net income, which indicated economies of scale and reaffirmed previous studies (Hillman, 2003; Gong, 2006). Leverage was negatively associated with both revenue and profitability, highlighting the risks of debt-fueled expansion in developing economies. Notably, foreign director presence was positively associated with net income in the caste model, suggesting that international exposure may extend caste diversity to profit enhancement. The observation is aligned with Garg et al. (2023), who pointed out that cross-

national institutional pressures are likely to trigger Indian firms toward more inclusive governance.

6.6 Theoretical Implications

The findings generalize institutional and resource-dependence theories of corporate governance. Caste heterogeneity appears to reduce homogeneity and improve internal monitoring, which increases profitability. Gender diversity, however, appears to increase external legitimacy and stakeholder engagement, generating revenues. These mixed effects provide evidence that diversity is not a unidimensional construct; each dimension can have varying firm consequences. This is consistent with Hillman (2003), who argued that board diversity provides access to alternative resources depending on the background of the directors, and in line with Bhagavatula et al. (2023), who emphasized that social uniformity weakens governance.

6.7 Policy and Practical Implications

In practice, this implies that firms should not incorporate diversity as a box-ticking exercise but rather as an organizational resource. Boards composed of mixed members from different caste groups have the potential to improve surveillance and reduce elite capture and improve profitability. Similarly, higher involvement of women can improve external trustworthiness and credibility with direct contribution to sales and market positioning. Policymakers such as the Securities and Exchange Board of India can consider these differential impacts while designing disclosure or quota policies, looking beyond mere compliance into the quality and effect of diverse directors.

6.8 Limitations and Future Research Directions

The findings should be understood against some limitations. The use of surnames to classify castes creates potential measurement errors despite its prevalence in sociological research. The NIFTY-50 firm composition limits generalizability to private or smaller firms. The study is also not capable of demonstrating causality; it could be the case that more profitable firms appoint more diverse directors rather than vice versa. Future research could extend this analysis to mid-cap firms, incorporate qualitative results on board dynamics, or examine intersectional dimensions of diversity beyond caste and gender.

6.9 Conclusion

Briefly, the results show that gender and caste diversity affect different facets of financial performance in Indian firms. Caste diversity is most strongly associated with profitability, while gender diversity is most strongly associated with revenue growth. These results enrich the debate on board diversity because they show the different pathways by which different

types of heterogeneity have their effects on firm outcomes. The last chapter provides the concluding remarks, highlighting the contributions of the thesis along with practice and policy recommendations.

Chapter 7: Conclusion

7.1 Aim of the Research

The main objective of this study was to analyse if caste and gender diversity on the boards of India's largest companies has a quantifiable impact on financial performance in companies. Gender diversity has been given policy and scholarly attention all over the world as well as in India, yet caste diversity is quite under-researched despite being an integral part of Indian social and economic life (Deshpande, 2013; Iyer, 2013). By NIFTY-50 companies between 2018 and 2024, this study aimed to bridge this gap and provide empirical evidence of the relationship between board composition in these social dimensions and profitability, revenues, and shareholder returns.

7.2 Research Goal

The study had three goals. The first was to quantify caste and gender heterogeneity at the board level using Blau's index and hence provide a comparable measure of heterogeneity that was feasible across firms and over time (Cox & Blake, 1991; Herring, 2009). The second one was to examine whether this diversity is associated with significant measures of financial performance return on equity, revenues, and net income controlling for firm size, leverage, board size, and foreign directors' presence. The third one was to interpret these associations in the Indian institutional context and thereby contribute to governance research that up till now has focused mostly on Western firms (Hillman, 2003; Meyer & Rowan, 1977).

7.3 Summary of Results

The results showed that gender and caste diversity have differential effects on firm performance. Caste diversity was strongly and positively associated with net income, which means that diverse boards may discourage collusion, improve monitoring, and stimulate decision-making (Bhagavatula et al., 2023; Garg et al., 2023). Caste diversity did not significantly correlate with revenue or return on equity. Gender diversity, in contrast, was also positively and strongly related to revenue, reflecting the potential impact of diverse boards on improved legitimacy, stakeholder engagement, and customer trust (Cox & Blake, 1991; Herring, 2009; Sanan, 2016; Limbasiya & Shukla, 2019). Gender diversity was not, however, significantly related to net income or return on equity, reflecting ongoing structural limitations that limit the ability of women to impact core financial performance within Indian boardrooms. Across models, neither of these aspects of diversity was found to have a statistically significant influence on return on equity, as would be predicted from the observation that promoter dominance and Indian company concentrated ownership cause the

composition of the board to decouple from shareholder returns (Meyer & Rowan, 1977; Bhagavatula et al., 2023).

7.4 Contribution of Theory

This thesis contributes several important contributions to corporate governance literature. It then expands from previous work on board diversity by adopting caste as a measurable construct at the board level. Caste has been a well-established labour market organising principle and entrepreneurship concept for many years (Deshpande, 2013; Iyer, 2013), but rarely measured in boardroom studies. In showing that heterogeneity of caste is positively correlated with profitability, the study provides empirical support to hypotheses that diversity can improve monitoring and reduce elite capture (Bhagavatula et al., 2023). Second, the study highlights that there are multi-dimensional impacts of diversity: caste is more relevant for internal measures such as profitability, while gender is more relevant for external measures such as revenues. This is in support of resource dependence theory, with its argument that such board characteristics expose the firm to different kinds of resources and legitimacy (Hillman, 2003). Third, the results align with institutional theory by suggesting that symbolic compliance with diversity needs, such as token women appointments, may be insufficient to create deeper financial outcomes (Meyer & Rowan, 1977).

7.5 Recommendations for Policy Makers

The results have significant policy implications for policymakers and regulators. Current governance reforms in India, including SEBI's mandate for at least one female director, have focused primarily on gender (Limbasiya & Shukla, 2019). This thesis suggests that broadening the scope of diversity beyond gender to include caste could strengthen governance outcomes. Policymakers could consider encouraging firms to disclose caste diversity statistics on a voluntary basis, thereby increasing transparency and accountability. At the same time, the regulators should place emphasis on the quality of diversity engagement, rather than mere presence of diverse directors, since tokenism can nullify the effectiveness of diversity initiatives (Bhagavatula et al., 2023). There is already public sector evidence demonstrating the advantages: Kundu, Bansal, and Pruthi (2019) reveal that Indian public enterprise employee diversity positively influences firm performance. This means that such initiatives can be replicated and replicated to the private corporate segment as well. However, Aggarwal, Jindal, and Seth (2019) observe that the advantages of board diversity are not experienced uniformly across all Indian firms. Based on their study, it is clear that standalone firms achieve considerable benefits while business group-associated firms with long-standing family ownership structures experience limited advantages. To policymakers, this suggests

that diversity initiatives would need to be modified, with more extensive incentives or monitoring procedures in group firms if they are to be enforced effectively. Finally, alignment with ESG reporting requirements including diversity measures could encourage firms to see inclusion not only as a compliance problem but also as a measure of good governance and long-term value creation (McKinsey, 2020; Herring, 2009).

7.6 Limitations and Future Research

The study has various limitations that need to be taken into consideration. Caste classification was performed on the basis of surnames and AI supported categorisation, which leaves room for misclassification although it is in accordance with traditional sociological practice (Deshpande, 2013). NIFTY-50 firm level focus diminishes the results' generalisability to small or private companies, whose governance structures may be quite different (Bhagavatula et al., 2023). Moreover, the study design does not induce causality, and it is still an opportunity that more profitable firms may diversify their boards rather than the reverse. Future work should therefore progress to mid-cap and small-cap firms, explore intersectional processes such as the combined effect of caste and gender (Garg et al., 2023) and employ qualitative methods such as interviews to uncover mechanisms by which diversity affects boardroom selection. Longitudinal research over longer time spans could also indicate whether the benefits of diversity grow as social norms for inclusion are institutionalized (Meyer & Rowan, 1977).

Appendix

Appendix A: Data Description

Table A.1

Description of Variables

<i>Variable</i>	<i>Definition</i>
<i>ROE</i>	Return on Equity, measured as Net Income / Shareholders' Equity.
<i>Revenue</i>	Total annual sales revenue (log-transformed where required).
<i>NetIncome</i>	Net profit after tax (log-transformed for regressions).
<i>Blau_Caste</i>	Blau's index of caste diversity (Brahmin, Kshatriya, Vaishya, Shudra only).
<i>Blau_Gender</i>	Blau's index of gender diversity (male, female).
<i>BoardSize</i>	Number of directors on the board.
<i>FirmSize</i>	Natural logarithm of total assets.
<i>Leverage</i>	Ratio of total debt to total assets.
<i>ForeignDummy</i>	Dummy variable = 1 if at least one foreign director is present.

Appendix B: Descriptive Statistics

Table B.1

Descriptive Statistics of Variables (2018–2024, NIFTY-50 Firms)

<i>Variable</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>25%</i>	<i>50%</i>	<i>75%</i>	<i>Max</i>		
<i>ROE</i>	350	18.70	17.42	−43.32	10.46	15.91	22.57	108.52		
<i>Revenue</i>	350	5.79e+10	4.21e+11	2.16e+07	2.92e+08	6.08e+08	1.35e+09	4.75e+12		
<i>NetIncome</i>	350	1.03e+09	5.86e+09	− 3.22e+08	2.33e+07	5.57e+07	1.31e+08	8.56e+10		
<i>Blau_Caste</i>	350	0.564	0.104	0.00	0.496	0.571	0.641	0.740		
<i>Blau_Gender</i>	350	0.281	0.133	−0.281	0.180	0.296	0.375	1.000		
<i>BoardSize</i>	350	11.27	3.31	5	9	11	13	39		
<i>FirmSize</i>	350	9.17	0.83	7.37	8.58	9.12	9.51	12.65		
<i>Leverage</i>	350	0.212	0.197	0.00	0.039	0.147	0.369	0.746		
<i>ForeignDummy</i>			350	0.391	0.489	0	0	0	1	1

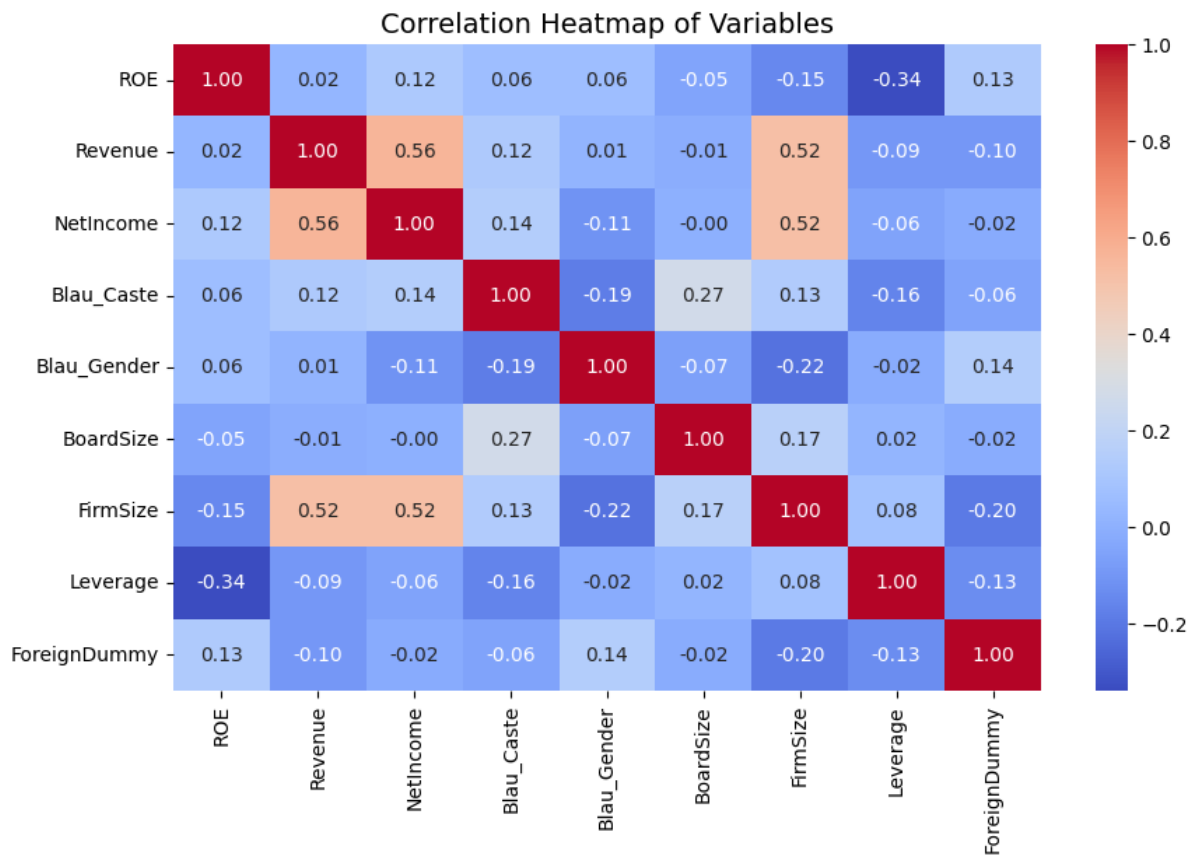
Appendix C: Correlation Matrix and Heatmap

Table C.1

Correlation Matrix of Variables (2018–2024, NIFTY-50 Firms)

	<i>ROE</i>	<i>Revenue</i>	<i>NetIncome</i>	<i>Blau_Caste</i>	<i>Blau_Gender</i>	<i>BoardSize</i>	<i>FirmSize</i>	<i>Leverage</i>	<i>ForeignDummy</i>
<i>ROE</i>	1.00	0.02	0.12	0.06	0.06	−0.05	−0.15	−0.34	0.13
<i>Revenue</i>	0.02	1.00	0.56	0.12	0.01	−0.01	0.52	−0.09	−0.10
<i>NetIncome</i>	0.12	0.56	1.00	0.14	−0.11	−0.00	0.52	−0.06	−0.02
<i>Blau_Caste</i>	0.06	0.12	0.14	1.00	−0.19	0.27	0.13	−0.16	−0.06
<i>Blau_Gender</i>	0.06	0.01	−0.11	−0.19	1.00	−0.07	−0.22	−0.02	0.14
<i>BoardSize</i>	−0.05	−0.01	−0.00	0.27	−0.07	1.00	0.17	0.02	−0.02
<i>FirmSize</i>	−0.15	0.52	0.52	0.13	−0.22	0.17	1.00	0.08	−0.20
<i>Leverage</i>	−0.34	−0.09	−0.06	−0.16	−0.02	0.02	0.08	1.00	−0.13
<i>ForeignDummy</i>	0.13	−0.10	−0.02	−0.06	0.14	−0.02	−0.20	−0.13	1.00

Figure C.1: Correlation Heatmap of Variables



Appendix D: Regression Outputs (Full Models)

Table D.1: Regression Results for ROE Models

<i>Variable</i>	<i>FE (Caste)</i>	<i>RE (Gender)</i>
<i>Blau_Caste</i>	−5.44 (0.52)	—
<i>Blau_Gender</i>	—	5.68 (0.30)
<i>BoardSize</i>	0.26 (0.23)	0.14 (0.48)
<i>FirmSize</i>	−31.11 (0.11)	−3.13 (0.15)
<i>Leverage</i>	0.45 (0.97)	−18.77 (0.01)**
<i>ForeignDummy</i>	2.15 (0.36)	3.25 (0.18)
<i>Constant</i>	303.23 (0.09)	46.93 (0.02)**
<i>R² (Overall)</i>	−1.80	0.12
<i>Obs.</i>	350	350
<i>Model Type</i>	Fixed Effects	Random Effects

p < 0.05; *p < 0.01.

Table D.2: Regression Results for Revenue Models

<i>Variable</i>	<i>RE (Caste)</i>	<i>RE (Gender)</i>
<i>Blau_Caste</i>	29.47 (0.83)	—
<i>Blau_Gender</i>	—	2.81e+11 (0.01)**
<i>BoardSize</i>	−9.74e+08 (0.81)	−4.45e+08 (0.91)
<i>FirmSize</i>	2.93e+11 (0.00)**	3.07e+11 (0.00)**
<i>Leverage</i>	−4.87e+11 (0.00)**	−4.72e+11 (0.00)**
<i>ForeignDummy</i>	−5.13e+09 (0.92)	−6.33e+09 (0.90)
<i>Constant</i>	−2.53e+12 (0.00)**	−2.73e+12 (0.00)**
<i>R² (Overall)</i>	0.28	0.30
<i>Obs.</i>	350	350
<i>Model Type</i>	Random Effects	Random Effects

p < 0.05; **p < 0.01; *p < 0.001.

Table D.3: Regression Results for Net Income Models

<i>Variable</i>	<i>RE (Caste)</i>	<i>FE (Gender)</i>
<i>Blau_Caste</i>	0.76 (0.05)*	–
<i>Blau_Gender</i>	–	0.20 (0.52)
<i>BoardSize</i>	–0.00 (0.81)	0.01 (0.14)
<i>FirmSize</i>	1.87 (0.00)**	1.04 (0.06)
<i>Leverage</i>	–1.69 (0.00)**	–1.12 (0.31)
<i>ForeignDummy</i>	0.35 (0.01)**	0.21 (0.23)
<i>Constant</i>	0.66 (0.57)	8.44 (0.08)
<i>R² (Overall)</i>	0.47	0.59
<i>Obs.</i>	341	341
<i>Model Type</i>	Random Effects	Fixed Effects

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