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WOMEN IN BOARDROOMS AND FIRM PERFORMANCE: A REVIEW OF THE RECENT TRENDS, GLOBAL SCENARIO, AND WAY FORWARD

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Abstract *The aim of this review paper is to explore the literature on board gender diversity (BGD) as a corporate governance strategy and whether it brings a favourable impact on firm's performance. While referring to previous empirical studies, we found a mixed view of the impact of women on boards (WOB) on firm's performance (FP), but the majority of literature does present a business case for having women directors. To establish the quality and objectivity of this review paper, articles from several high-ranked journals which were published between 2001 and 2023 were selected, and a structured investigation was carried out to prepare a clear meta-analytic presentation of the theme. The findings from chosen research have been categorised, synthesised, and summarised to touch upon the role of gender in corporate boardrooms across four major continents and put forward its implications. Through our cross-continent analysis, we discover stronger positive WOB-FP relationships in developed nations (with higher gender parity scores) than in emerging economies. Our research underpinnings suggest scanty research in the African Subcontinent emanating from inadequacies of a conducive and progressive business environment, while still asserting a positive WOB-FP link. Critical mass and resource dependency theories have also influenced a large section of the literature. This study pulls out many important themes from empirical research on board gender diversity that has been undertaken for over two decades now which aids in identifying pitfalls in the global context and establishing a research agenda for the future.*

Keywords: *Corporate Governance, Board Composition, Board Gender Diversity, Women Directors, Firm Performance*

INTRODUCTION

The board of directors' act as an internal governance system by appointing, constituting, supervising, and remunerating senior executives, as well as determining overall business strategy collectively. The Sarbanes-Oxley Act (2002) in the US had set the foundation for boardroom reforms and women on corporate boards has been a sought-after research agenda since then. Since then, a great volume of research has investigated the influence of board composition on a firm's performance and value (Bhagat & Bolton, 2008; Connell & Cramer, 2010; Palaniappan, 2017; Mishra & Kapil, 2018).

In the last two decades, board gender diversity as an aspect of board composition has attracted interest of researchers (Erhardt, 2003; Rose, 2007; Campbell & Minguez-Vera, 2008; Adams & Ferreira, 2009; Carter, 2010; Ahern & Dittmar, 2012; Liu, 2014; Mahadeo, 2012; Sarhan et al., 2018; Sen & Mukherjee, 2019; Brahma et al., 2020; Duppati et al., 2020; Mastella et al., 2021; Abbas & Frihatni, 2023, and others) as they intend to look into the impact of board diversity (described as the variability in the board's composition) on firm performance and other firm decisions and outcomes.

Adam and Ferreira's (2009) study is the pathfinder in this research stream where they claim that gender varied boards devote more time to monitoring and that gender diversity has a detrimental impact on business performance on average. However, another set of studies claim that women directors add value and have a beneficial influence on the financial success of the company (Singh, Vinnicombe & Johnson, 2001; Erhardt, Werbel, & Shrader, 2003; Campbell & Mnguez-Vera, 2008; Carter, Francoeur, Labelle & Sinclair-Desgagné, 2008; Nguyen & Faff, 2012; Reguera-Alvarado et al., 2017; Green & Homroy, 2018; Đặng et al., 2020; Mohsni et al., 2021) while a third body of research consensus (Carter et al., 2010; Rose, 2007; Chapple & Humphrey, 2014)

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reveals no relation between board of directors diversity and company performance. As a result, the impact of board diversity on business performance remains an open question that needs further investigation.

Many countries are actively implementing or considering a variety of initiatives to improve diversity on corporate boards. As stated by Labelle, Francoeur and Lakhal (2015), there can be three approaches to ensure that women have a seat at the table. The first is coercive and involves enacting affirmative legislation to ensure that a suitable proportion of women are represented on corporate boards through quotas (Norway, Belgium). Enabling is a second strategy in which corporations are compelled by law to comply with given norms or explain why they do not (Spain, Netherlands). The third is a voluntary approach, where companies (driven by market forces) can voluntarily choose to nominate women to their boards of directors or not (UK, Australia). The market pressures and the "soft" or "hard" legal actions are all founded on the belief that the presence of women has a favourable and noteworthy impact on the quality of governance and strategic management in companies and, therefore, their results.

Given the ongoing developments which promote gender equality and women's rights, this review paper focusses on gender not just in terms of gender diversity on boards, but also in terms of female participation in economic activities and society at large. The argument about fair treatment of men and women in society is likewise relevant to board diversity. In this introductory section, we also attempt to put forward some positive payoffs of having women directors.

Why Women?

A lot of research literature claims to a great extent that gender diversity on company boards enhances firm value and performance because of the inputs and advancements that female directors bring to the board. According to some studies, variety leads to increased knowledge, creativity, and innovation, which becomes a competitive advantage (Opstrup & Villadsen, 2014; Lee & Thong, 2022). The heterogeneity of board expertise and skill set is linked with higher firm value. The variation in functional expertise in a group, which comes from differences in team members' relevant knowledge and experience, creates a diversified informational resource for the group, which brings out positive group outcomes in the form of higher decision quality and greater creativity (Zhao, 2011; Kim & Stark, 2016).

Such contributions can have a two-fold impact on performance. Diversity is the first channel. More gender diversity in the workplace is expected to increase corporate performance if diverse teams outperform homogenous teams (Kahane et al., 2013). Female directors help to diversify the human capital on boards, which might lead to better decision-making, better monitoring, and the departure of less productive male directors (Hermalin & Weisbach, 2003). The second channel is based on discrimination reduction. Companies would be at a competitive disadvantage if there is a lack of female participation on corporate boards due to discriminatory gender policies (Becker, 1957; Miller & Triana, 2009).

According to the findings of a meta-analysis, women may lead in a different way than men (Terjesen, Sealy & Singh, 2009; Gipson, Pfaff, Mendelsohn, Catenacci & Burke, 2017; Kirsch, 2018), are more collaborative, and promote participatory decision-making (Mano-Negrin & Sheaffer, 2004; Bart & McQueen, 2013), which leads to lesser board conflicts (Nielsen & Huse, 2010).

Women and Ethics

Female board representation, we contend, has direct and indirect implications on the value of the firm. In addition, we argue that if BGD has an impact on company value, financial performance measurements may or may not capture that impact. Women directors may have an impact on other aspects of the firm, such as qualitative improvements not represented in financial statements.

Jo and Harjoto (2011) and Rodgers et al. (2013) illustrate that a company's commitment to strong social responsibility standards boosts its worth. Adherence to ethical ideals, according to Donker et al. (2008), has a positive influence on corporate value. Furthermore, having more women in a room has been shown to increase social and ethical involvement. Increased female board participation promotes corporate social responsibility. According to the authors, women's enhanced knowledge of social concerns contributes to higher corporate social responsibility (Bear et al., 2010; Hafsi & Turgut, 2013). Williams (2003) found that companies with more gender-diverse leadership are much more involved in philanthropy and social responsibility activities and programmes, and stakeholders view such activities as value-creating (Catalyst, 2011).

In view of the above arguments, this review is an attempt to integrate and consolidate the diverse interpretations surrounding WOB & FP. In the subsequent sections, we put forth the theoretical foundations guiding gender diversity, followed by our review methodology, a cross-continent literature analysis, and conclusion.

THEORETICAL PERSPECTIVES

Corporate boards of directors have a unique set of responsibilities where the key goal is increasing shareholders wealth. If a business case can be established for BGD, they may be inclined to embrace and evaluate it. Various boardroom diversity theories have arisen throughout time, all of which suggest a link between board diversity and corporate value, but no single theory can predict how the connection will play out.

The Agency Theory (AT) examines conflicts of interest between principals (e.g., shareholders) and agents (e.g., managers), as well as how the board of directors of a company might monitor and resolve them (Fama & Jensen, 1983; Jensen & Meckling, 1976). Diversity, according to the board's agency viewpoint, improves the monitoring function, which has an influence on company performance (Adams & Ferreira, 2009; Adams et al., 2009).

It was proposed that board diversity had an impact on corporate performance, based on Social Psychology theory (SPT). Croson and Gneezy (2009) and Palvia et al. (2015) proposed that behavioural differences between men and women gave advantages to organisations. In contrast, Amaram (2007) claimed that a diverse board may contribute to dysfunction in cases where there was a battle of views.

Becker's (1964) Human Capital Theory (HCT) analyses persons as capital from an economic standpoint, arguing that an individual's worth or value is determined by their level of skill, education, and experience (Bhagavatula, Elfring, Van Tilburg & Van De Bunt, 2010; Unger, Rauch, Frese & Rosenbusch, 2011; Lee & Lee, 2016). The fundamental argument is that women bring distinct levels of abilities, information, and perspectives to decision-making that males do not have, and thus they offer value.

According to Resource Dependence Theory (RDT), increasing the size and diversity of the board of directors can help enhance the link between businesses and their surroundings (Pfeffer, 1973; Goodstein, 1994). In other words, organisations with bigger and/or more diverse boards may assist to increase the firm's critical resources (Liu et al., 2014). Researchers in this field support the resource dependency theory since directors' diverse backgrounds in terms of gender, expertise, and nationality bring a wide range of experiences and viewpoints to the table, which ultimately enhances the efficacy of the board (Hillman et al., 2003; Vafaei et al., 2015).

"Numbers are necessary," according to Token Status (TST) (Kanter, 1977) and Critical Mass (CMT) Theories (Kristie, 2011), if organisations are to reap the full advantages of board diversity. When women and ethnic minorities make up a tiny fraction of a board, they are considered "tokens" or "solos," according to the token status hypothesis. The critical mass theory is an extension of the token status theory, positing that "one is a token, two is a presence, and three is a voice" (Kristie, 2011). "The magic seems to happen when three or more women serve on a board together," Kramer et al. (2007) write.

On the other side, the Competency gap theory (CGT) says that women are not given board positions as they lack the essential credentials, skills, and abilities. The 'competency gap' is another factor that contributes to board homogeneity. There is a scarcity of women and ethnic minorities with the necessary skills, abilities, qualities, and expertise for directorships, which leads to their holding of numerous directorships in various firms, which makes them too busy to do justice to their role and position, and it raises the risk of agency issues, which could lower the firm's worth (Jiraporn et al., 2009; Falato, 2014).

Stewardship theory (SWT) views managers as great stewards who work in the best interests of the company, while boards should concentrate on strategic planning and development along with collaborative & mentoring functions (Huse, 2005). In this case, the stewardship theory suggests that women are more effective as directors, in interacting with upper management to improve company performance directly since women are more likely to emerge as transformational leaders with their effective collaborative and networking tactics (Eagly et al., 2003; Low et al., 2015).

Legitimacy Theory (LT) acknowledges women's contribution in the form of increased legitimacy in the eyes of the firm's stakeholders. Within some socially formed system of rules, norms, and values, legitimacy is the common assumption that a practice is desirable, suitable, or acceptable (Suchman, 1995). Theorists say that having a diverse board helps to protect important resources such as board members' human capital, advice and counsel, communication channels, and legitimacy (Pfeffer & Salancik, 2003; Hillman & Dalziel, 2003).

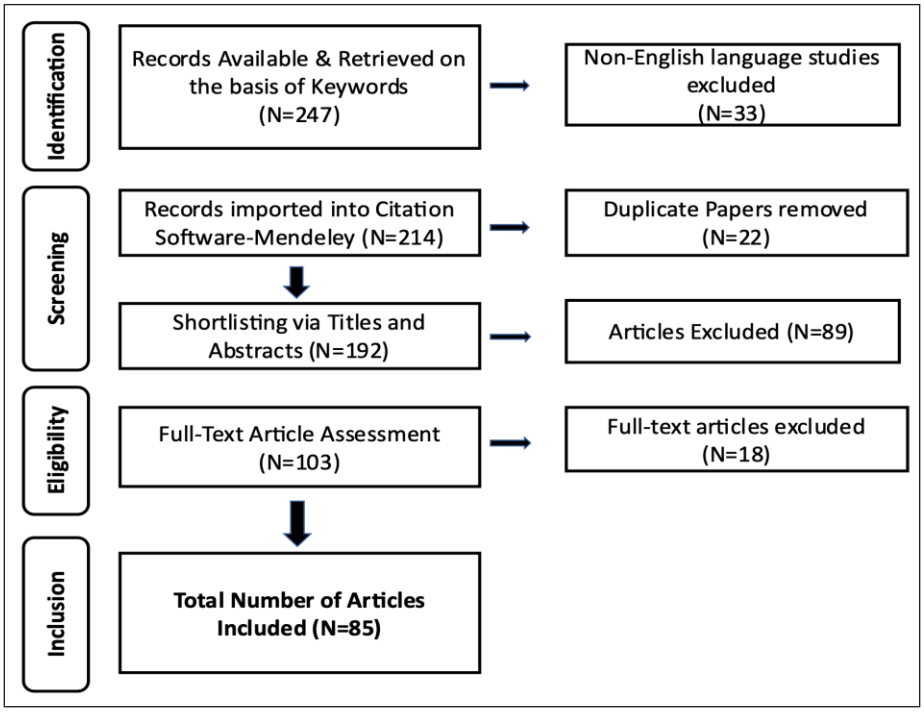
Upper echelons theory (UET) is based on Donald C. Hambrick's (1946) and Phyllis A. Mason's (1984) assertion that "the organisation is a reflection of its top managers". According to the notion of the Upper Echelon, gender composition is a type of non-functional diversity that is beneficial to high-performance management teams (Herman & Smith, 2015) and that diverse executive teams outperform homogeneous ones in terms of innovation (Bantel & Jackson, 1989), strategy (Bantel, 1993), competitive response (Hambrick et al., 1996), and speed of change implementation (Williams et al., 1995).

The Stakeholder theory (SHT) by Fryxell and Lerner (1989) addresses the participation of various minority groups on the company board of directors. Therefore, in addition to the shareholders/owners, the company must also consider the interests of other stakeholders in the company, such as employees, customers, suppliers, finance providers, etc. Gender diversity on corporate boards and in senior leadership roles are critical indicators of a socially responsible, sustainable, and stakeholder-oriented firm (Ibrahim & Angeledis, 1994; Webb, 2004). In addition, it is argued that increasing the number of women on the board provides for a more transparent governance system that ensures the consideration of stakeholder interests (Francoeur et al., 2008).

METHODOLOGY

A literature review article's objective is to give a complete overview of literature relating to a theme, theory, or technique, as well as to synthesise previous works to strengthen the foundation of that body of knowledge (Paul & Criado, 2020). A systematic literature review methodology (as shown in Fig. 1) is applied and the basic guidelines proposed by Tranfield et al. (2003) for conducting systematic reviews in management were adapted and customised into a three-step process. The steps are the following:

- Identify the need and objectives of the review, prepare a research plan, and develop the review strategy.
- Identify the keywords, select studies, quality screening, full text study, extract and synthesise data.
- Report and disseminate the result.



Source: Author's own tabulation.

Fig. 1: Systematic Literature & Database Search

Spotting Relevant Studies

To address our research objective, a structured assessment of the literature was started in 2022 without any timeframe restrictions. Top-ranked indexed journals served as the primary source for retrieving research articles on BGD. The term "board gender diversity" was searched in all articles' titles. Alternatively, "women on board" and "females on board" were also used to locate relevant papers from the database. To build up on our underlying research stream, we used the snowball effect to generate additional searches using the referenced work of relevant articles. A notable amount of 'grey literature' including working papers and unpublished reports was also identified, but these were kept outside the purview of this paper for quality purposes. Finally, to construct a sound theoretical review, relevant papers from high-ranked journals were selected.

Study Selection and Assessment

The eligibility of the selected papers was evaluated based on a predefined criteria. Some papers were excluded in the preliminary stage due to language, subject area, and document type restrictions. The abstracts and introductory sections of the appropriate papers were then assessed. Articles not meeting the required inclusion criteria (based on the variables studied and context) were excluded at this stage. Some other papers were also rejected, given our time frame requirements. Subsequently, a full text review of the chosen articles was carried out, and key elements of the studies were mapped in MS Excel spreadsheets (including doi, journal, context, variables, and findings).

Analysis, Synthesis, and Reporting

After excel mapping, all articles were analysed in emerging themes and contexts, and a country wise grouping was done. A thematic content analysis was carried out based on gender theories applied, variables studied, country of study, and reported findings. Consequently, an effort has been made to present the outcomes of this research in a manner which will aid further research in this area.

Table 1 indicates the list of journals selected along with the number of papers procured from each.

Table 1: Selected Journals and No. of Papers Retrieved

Journal of Publication	Number	Journal of Publication	Number
Corporate Governance: An International Journal of Business in Society	6	Emerging Markets Review	3
Journal of Business Ethics	7	Meditari Accountancy Research	1
Journal of Management Studies	1	International Journal ofProductivity and PerformanceManagement	1
Journal of Financial Economics	1	International Journal ofEntrepreneurial Behavior &Research	1
Corporate Governance: An International Review	2	Journal of Behavioral and Experimental Finance	1
Journal of Business Research	3	Journal of Family Business Strategy	1
Academy of Management Journal	1	Corporate Governance: the international journal ofbusiness in society	1
Strategic Management Journal	1	Gender in Management: AnInternational Journal	1
Gender in Management: An International Journal	1	Management Decision	2
Journal of Empirical Finance	1	Journal of Money and Business	1
Journal of Leadership &Organizational Studies	1	Corporate Governance: The International Journal of Business in Society	1
Journal of Banking and Finance	2	Journal of Financial Reporting and Accounting	1
Economic Modelling	1	Asian Business & Management	1
Gender in Management: AnInternational Journal	2	Pacific Accounting Review	1
Journal of Sustainable Finance	1	Corporate Ownership and Control	1
International Journal of Productivityand Performance Management	1	Journal of Corporate Finance	1
The International Journal of Human Resource Management	1	Pacific-Basin Finance Journal	1
British Journal of Management	1	Australian Accounting Review	1
Journal of Business Finance & Accounting	2	Benchmarking: An InternationalJournal	1
Spanish Accounting Review	1	Applied Economics	1
The Quarterly Journal of Economics	1	Equality, Diversity and Inclusion:An International Journal	2
Journal of Management and Governance	1	International Business Review	1
The Economic Journal	1	Int Advances in Economic Research	1
Public Administration Review	1	Journal of Commerce & Accounting Research	2
European Economic Review	1	International Journal ofAccounting & InformationManagement	1
Research in International Business and Finance	1	Management Research Review	1
International Review of Economics and Finance	2	International Journal of EmergingMarkets	2
Cogent Economics & Finance	1	Society and Business Review	1
The Leadership Quarterly	1	International Journal of ManagerialFinance	1
International Journal of Finance & Economics	2	Journal of Capital Markets Studies	1
Total Number of Articles			85

Source: Author's own excel tabulation.

LITERATURE REVIEW

This review paper examines studies of the last two decades. The findings from the previous research have been categorised, synthesised, and summarised, to understand and establish key trends, themes, and emerging areas for future research. To enable a comparative investigation, the literature review comprises of two sections: A Cross-continent analysis and Review of variables and measurements.

Cross-Continent Analysis

To enable a comparative investigation, the literature review has been categorised based on four broad regions: American, Europe & UK, Africa & Middle East, and Asia-Pacific.

American Region

Gender diversity on US boards has a considerable impact on performance (Hafsi & Turgut, 2013). Erhardt, Werbel

and Shrader (2003) evaluated the influence of BGD on the performance of 112 large American listed corporations. They conclude that variety improves group dynamics, which improves decision-making, and the idea was that by having a more diversified board of directors, the organisation's performance would improve. The data supported the idea that a more diverse board of directors leads to better results. Using Tobin's Q (TQ) for firm performance, a similar positive relationship was reported by Francoeur et al. (2008), Dezso and Ross (2012), Canyon and He (2017), Chen et al. (2018), Fernando et al. (2020), and Mastella et al. (2021). Moreno-Gomez (2017) et al. discover a similar link in major Canadian and Columbian corporations, respectively. Wiley and Monllor-Tormos and Owen and Temesvary (2018) bring out robust findings using alternative proxies for gender and performance, where they argue that BGD yields higher company performance only when there is a critical mass of about 30% women on board. The notion that women are lacking the "proper" human capital for holding directorships is completely debunked by evidence from the United States and the United Kingdom.

Women directors have been found to create a value-decreasing impact in US firms with moderate degrees of management entrenchment (Adams & Ferreira, 2009; Gul et al., 2011). While Adams and Ferreira (2009) show that more gender diverse boards spend more time on supervising managers, and discover a negative link between the proportion of females on the board and TQ, Carter et al. (2010), He and Huang (2011), and Marquez-Cardenas et al. (2022) found no relationship between proportion of WOB and Return on Assets (ROA) or TQ.

The recent McKinsey report on diversity and inclusion (2020) finds a 4% increase in gender diversity in the North-American region from its last survey in 2015. World Economic Forum's "Global Gender Gap Report 2023" substantiates the same with North America achieving the highest gender parity score at 77.6% on the women's economic participation and opportunity subindex. Canada and the US also report an improvement in their current gender parity scores (Table 2).

Europe and the UK

Brahma et al. (2020) investigated the link between board gender diversity, chosen female characteristics, from a sample of FTSE 100 firms in the United Kingdom. A positive and significant association was revealed, based on critical mass theory, and assessing gender diversity as levels of female representation in boardrooms. So, when three or more females are present on the board, the results become quite substantial and obvious than when only two or lesser females are present. Green and Homroy (2017), Nadeem et al. (2019), and Gharbi and Othmani (2022) record similar positive relationships. Nadeem (2019) looked at how WOB may manage the company's risk-reward relationship using "group dynamics process." The findings show a negative link between presence of WOB and company risk, but a positive impact of women and firm risk on firm profitability, based on a large dataset of listed enterprises in UK. Puntaire et al. (2022) endorse the same results by applying Shannon index as gender proxy. Gregory-Smith et al. (2013) found no link at all.

The commercial rationale for more women on company boards is supported by evidence from a Russian study (Garanina & Muravyev, 2020). Firms with heterogenous boards have higher profits and market values, according to numerous identification methodologies, alternative metrics of gender diversity, and several performance metrics.

Marinova et al. (2010) used data from the Netherlands and Denmark and revealed using TQ as a performance indicator, that BGD has no influence on corporate success. Rose (2007) looked at a sample of Danish firms on the Copenhagen Stock Exchange (1998-2001) and concluded that having a female on the board had no effect on the company's success, whereas Smith et al. (2006) find a positive link between BGD and a host of corporate performance metrics. In Spain as well, Campbell and Minguez-Vera (2008) discovered a positive influence of gender diversity on TQ while Safiullah et al. (2022) found a negative link with TQ but positive with ROA & ROE.

Ahern and Dittmar (2012) demonstrate that mandating 40% quotas for female directors on boards of Norwegian public companies lowers company value. The results are ascribed to the theory that the law drives corporations to appoint younger, less experienced women as directors. In a cross-country study, Labelle, Francoeur, and Lakhal (2015) discovered that legislating gender diversity on boards had a negative influence on the association between gender diversity and corporate success. The effect of the gender quota policy has spurred research on the policy's requirement, underlying institutional causes, and ethical difficulties.

The European region beats all others with the highest gender parity at 76.3% across all subindexes (Global Gender Gap Report, 2023), thus supporting the business case for gender diversity. Iceland, Norway, and Finland emerge as the best performers in the world. The FTSE Women Leaders Review 2023 reported 40.2% women representation on FTSE 350 companies through its voluntary business-led approach which is a positive outcome towards a gender egalitarian society (Table 3).

Table 2: Review of Studies for American Region

Sr. No.	Authors	Year of Publication	Journal of Publication	Market in Focus	Theoretical Foundation	Dependent Variable	Independent Variable	Sample	Link/Sign
1	Erhardt et al.	2003	Corporate Governance: An International Journal of Business in Society	US	AT	ROA, ROI	% FD	112 Fortune companies (1993-1998)	Positive
2	Francoeur et al.	2008	Journal of Business Ethics	US	AT, SHT	ROS, ROA, ROE	% FD	230 large Canadian firms (2002-2004)	Positive
3	Miller & Triana	2009	Journal of Management Studies	US	Behavioural & Signalling Th.	ROI, ROS	% FD, BI	326 Fortune 500 Firms (2002-2005)	Inconclusive
4	Adams & Ferreira	2009	Journal of Financial Economics	US	AT	TQ, ROA	% FD, FDV	S&P 500 firms (1996-2003)	Negative
5	Carter et al.	2010	Corporate Governance: An International Review	US	RDT, AT, HCT	ROA, TQ	FD(n)	S&P 500 index companies (1998-2002)	No Relationship
6	Jurkus et al.	2011	Journal of Business Research	US	AT	ROA, Agency Costs	% FD, FDV	668 Fortune 500 Firms (1995-2005)	Positive
7	He & Huang	2011	Academy of Management Journal	US	AT	ROA	BI	530 US Manufacturing firms (2001-2007)	No Relationship
8	Dezso & Ross	2012	Strategic Management Journal	US	NA	TQ, ROA, ROE	FDV	S&P 1500 firms (1992-2006)	Positive
9	Conyon & He	2017	Journal of Business Research	US	Threat Rigidity, Job Sorting & Matching Th.	TQ, ROA	% FD	3634 publicly traded US Firms (2007-2014)	Positive
10	Moreno-Gomez et al.	2017	Gender in Management: An International Journal	Columbia	UET	ROA, ROE	% FD, FDV	54 Columbian listed firms (2008-2015)	Positive
11	Chen et al.	2018	Journal of Empirical Finance	US	NA	TQ, ROA	% FD	1224 firms on NBER Patent database (1998-2006)	Positive
12	Wiley & Monllor-Tormos	2018	Journal of Leadership & Organisational Studies	US	CMT	TQ, ROA, ROI	% FD, FD(n)	Fortune 500 Firms (2007-2014)	Positive with critical mass
13	Owen & Temesvary	2018	Journal of Banking and Finance	US	NA	ROA, Revenue to Expense Ratio, Sharpe Ratio, Annual Stock Price Growth	% FD, BI	87 large US Banks (1999-2015)	Positive with critical mass
14	Fernando et al.	2020	Journal of Business Research	US	UET	TQ, ROA	% FD	2635 US Firms (1992-2015)	Positive
15	Dang et al.	2020	Economic Modelling	US	AT, UET, CMT	ROA	% FD, BI	369 S&P 500 Firms (2004-2015)	Positive

Sr. No.	Authors	Year of Publication	Journal of Publication	Market in Focus	Theoretical Foundation	Dependent Variable	Independent Variable	Sample	Link/Sign
16	Mastella et al.	2021	Gender in Management: An International Journal	Brazil	AT	ROA, ROE, TQ	FD(n)	150 Publicly traded firms (2010-2018)	Positive
17	Marquez-Cardenas et al.	2022	Journal of Sustainable Finance	6 Latin-American Countries	AT, RDT	ROA	% FD	243 firms (across 6 major sectors) in 6 Latin-American countries (2012-2018)	No Relationship

Source: Based on author's own excel mapping.

Notes: %FD: Percentage/Proportion/Fraction of Female Directors; FD(n): Number of female directors; BI: Blau's Index; SI: Shannon Index; FDV: Female Dummy Variable; NA: Not Applicable/Specified.

Table 3: Review of Studies for Europe and UK

Sr. No.	Authors	Year of Publication	Journal of Publication	Market in Focus	Theoretical Foundation	Dependent Variable	Independent Variable	Sample	Link/Sign
1	Smith et al.	2006	International Journal of Productivity and Performance Management	Denmark	NA	Gross profit/Net sales, Contribution margin/Net sales, Operating income/ net assets, Net income after tax/Net assets.	% FD	2500 large Danish firms (1993-2001)	Positive
2	Caspar Rose	2007	Corporate Governance: An international journal of business in society	Denmark	NA	TQ	FDV, % FD	Danish firms on Copenhagen Stock Exchange (1998-2001)	No Relationship
3	Campbell and Mínguez-Vera	2008	Journal of Business Ethics	Spain	NA	TQ	FDV, % FD, BI, SI	68 Non-financial firms on Madrid Stock Exchange (1995-2000)	Positive
4	Marinova et al.	2010	The International Journal of Human Resource Management	Netherlands & Denmark	UET	TQ	% FD, FDV	102 Dutch companies on Euronext, Amsterdam & 84 Danish companies on OMX Nordic Exchange Copenhagen (2007)	No Relationship
5	Haslam et al.	2010	British Journal of Management	UK	NA	ROA, ROE	Women on board(Y/N), % FD	126 FTSE-100 Index firms (2001-2005)	No link for ROE, ROA & Negative link with at least one woman on board (TQ)
6	Bøhren & Strøm	2010	Journal of Business Finance & Accounting	Norway	NA	TQ, ROA, ROS	% FD	203 firms on Oslo Stock Exchange (1989-2002)	Negative

Sr. No.	Authors	Year of Publication	Journal of Publication	Market in Focus	Theoretical Foundation	Dependent Variable	Independent Variable	Sample	Link/Sign
7	Gallego-Álvarez et al.	2010	Spanish Accounting Review	Spain	AT, RDT	TQ, ROA, ROE, ROS, ROAN, MUB	% FD	96 Spanish corporations on Madrid Stock Exchange (2004-2006)	Inconclusive
8	Ahern & Dittmar	2012	The Quarterly Journal of Economics	Norway	NA	TQ	% FD	248 public firms on Oslo Stock Exchange (2001-2009)	Negative
9	Joecks et al.	2012	Journal of Business Ethics	Germany	CMT	ROE	FDV, BI	151 German listed firms (2000-2005)	Positive with Critical Mass
10	Luckerath-Rovers	2013	Journal of Management and Governance	Netherlands	RDT	ROS, ROE, ROIC, EBIT, Stock Price Growth, TSR	% FD	99 Dutch Companies on Amsterdam Euronext Stock Exchange (2005-2007)	Positive
11	Gregory-Smith et al.	2013	The Economic Journal	UK	NA	ROA, ROE, Price to Book Ratio, TSR	Gender of the director who has stepped down	FTSE 350 Firms (1996-2011)	No Relationship
12	Opstrup & Villadsen	2014	Public Administration Review	Denmark	NA	Operating Result, Budget Overruns	BI, FDV	98 Danish Municipalities (2008-2012)	Positive
13	Isidro & Sobral	2015	Journal of Business Ethics	16 European Countries	AT, RDT, HCT, SCP	TQ, ROA, ROS	% FD, FDV	Financial Times 2011 classification of the 500 largest European firms (2010-2012)	Inconclusive
14	Reguera-Alvarado et al.	2015	Journal of Business Ethics	Spain	AT, RDT, SHT	TQ	% FD, BI, SI	125 Non-financial firms on Madrid Stock Exchange (2005-2009)	Positive
15	Bennouri et al.	2017	Journal of Banking and Finance	France	RDT	ROA, ROE, TQ	% FD	394 CAC firms (2001-2010)	Positive with ROA, ROE Negative with TQ
16	Green & Homroy	2017	European Economic Review	UK	NA	ROA, MTBR	% FD	EuroTop 100 firms (2004-2015)	Positive
17	Ali et al.	2017	Research in International Business and Finance	France	AT, SHT	ROA, ROE	% FD	108 French firms on CAC 40 Index (2011-2013)	Positive
18	Nadeem et al.	2019	International Review of Economics and Finance	UK	NA	ROA	% FD, FDV, BI	424 firms on UK Stock Exchange (2007-2016)	Positive

Sr. No.	Authors	Year of Publication	Journal of Publication	Market in Focus	Theoretical Foundation	Dependent Variable	Independent Variable	Sample	Link/Sign
19	Slama et al.	2019	Cogent Economics & Finance	France	CMT, AT	ROA, TQ	FDV, % FD	89 Firms on CAC (2008-2011)	Positive with Gender Quota French Code
20	Yang et al.	2019	The Leadership Quarterly	Norway	RDT	Operating Income/ Assets, ROA, TQ, MTBR	% FD	622 firm-year observations in Norway (2002-2008)	Negative
21	Brahma et al.	2020	International Journal of Finance & Economics	UK	CMT	ROA, TQ	3 FDVs	FTSE 100 firms (2005-2016)	Positive
22	Garanina & Muravyev	2020	Emerging Markets Review	Russia	CMT	MTBR, TQ, ROE, ROA	% FD, FDV	More than 550 Russian publicly traded firms (1998-2014)	Positive
23	Fernández-Temprano & Tejerina-Gaite	2020	Corporate Governance: An international journal of business in society	Spain	AT	ROA, MTBR	Proportion of Male Directors	87 Non-financial spanish firms (2005-2015)	No Relationship
24	Rubino et al.	2021	Meditari Accountancy Research	Italy	AT, RDT	ROA	% FD (Independent & Executive)	Industrial firms on Milan Stock Exchange (2006-2015)	Positive
25	Soare et al.	2021	International Journal of Productivity and Performance Management	Belgium	NA	23 Financial Indicators (ROA, EBIT, Quick Ratio etc.)	% FD	4080 Belgian firms (2010 & 2017)	Negative for 10 indicators, No link for other 13 indicators
26	Puntaire et al.	2022	International Journal of Entrepreneurial Behaviour & Research	UK	UET	ROA	SI	309 Manufacturing SMEs in UK (2009-2019)	Positive
27	Gharbi & Othmani	2022	Corporate Governance: An International journal of business in society	France	AT, CMT	ROA, TQ	% FD	284 non-financial French firms listed on Euronext Paris (2009-2017)	Positive with critical mass Neutral, otherwise
28	Safiullah et al.	2022	Journal of Behavioral and Experimental Finance	Spain	AT, RDT, HCT	TQ, ROA, ROE, BEP (Basic Earning Power Ratio)	% FD, FDV, BI, SI	165 firms listed on Spanish Stock Exchange Commission (CNMV)	Positive with ROA, ROE & BEP Negative with TQ
29	Tao-Schuchardt & Kammerlander	2023	Journal of Family Business Strategy	Europe	AT, UET	ROA	% FD, FDV	1134 publicly listed European firms (2010-2018)	Positive (But weak for family firms)

Source: Based on author's own excel mapping.

Africa and Middle East

We find a dearth of established gender studies in the African regions, owing to the steady development rate. People lack awareness and many governments are still to bring out legislations on gender equity.

Between 2008 and 2013, Gyapong et al. (2016) used a sample of 245 South African listed firms and found that both, board gender and ethnic diversity had a positive and significant effect on business value. They also discovered that when three or more female directors are present (critical mass), the boost in firm value is even larger.

In Turkey, Ararat et al. (2015) developed several proxies for female engagement, but found no grounds to prove that female directors affect firm value and profitability. Female directors have been shown to enhance firm value only when women work more actively while participating in board governance by serving on board committees and being well-represented as well.

Kılıç and Kuzey (2016) found a positive association in Turkey, while Solakoglu and Demir (2016) reported inconclusive results. Asare et al. (2022) also recorded insignificant relationships in their study on banks from 26 African countries. In Nigeria, a negative association between WOB & FP (measured through ROA) was found (Ujunwa, 2012). In terms of initiatives of the government, regulators, and practitioners, much is still to be formalised in this region.

North Africa and the Middle East remain farthest away from gender parity with a score of 62.6% while Sub-Saharan Africa closes at 68.2% (Global Gender Gap Report, 2023). Namibia, Rwanda, and South Africa emerge as the best countries that foster gender equality.

Asia Pacific

Using a sample of Asian enterprises from Hong Kong, Malaysia, Singapore, and South Korea, Low (2015) demonstrates that an increase in the number of female directors on the board has a positive impact on company success as assessed by return on equity (ROE).

For businesses listed on the Australian Securities Exchange, Chapple and Humphrey (2014) compared the performance of stock and asset portfolios of companies that had gender diverse boards vs. those that did not. There was no evidence of a link between board diversity and overall firm performance. A similar result was reported by Yarram and Adapa (2023) by employing the Blau and Shannon Index as gender proxies. Wang and Clift (2009), on the contrary, find that while bigger Australian firms tend to have more female board members, board gender diversity has no significant influence on accounting metrics ROA and ROE. Bonn et al. (2004) carried out a comparative study and found a positive association among proportion of WOB & FP in Australia but no such link for Japan.

In their novel research using Asian data, Julizaerma and Sori (2012) contend (applying OLS regression) a positive connection between WOB of directors and company performance in Malaysian firms. Marimuthu and Kolandaisamy (2009) discover no significant associations employing ROA and ROE throughout the 2000–2006 period in their Malaysian study. However, in a similar setting, Pheng Lim et al. (2019) infer a negative relation between the two variables.

According to Liu's (2014) research of Chinese boardrooms, female executive directors had a stronger positive influence on business performance than female independent directors, suggesting that the executive effect overcomes the monitoring effect. On the other hand, Chen and Hassan (2021), in their attempt to discover a negative link between TQ and performance

Mahadeo et al. (2012) revealed a positive association between BGD and firm value, for firms listed on the Mauritius Stock Exchange. In Indonesia, Darmadi (2011) demonstrates a negative link between the presence of WOB on TQ and ROA, undercutting the rationale for more gender diverse boards.

Sarkar and Selarka (2020) looked at the influence of female directors on the performance of Indian companies, where women directors had a positive and substantial influence on business performance as measured by ROA and Tobin's Q. Maji and Saha (2021) also reported a positive link taking Blau's and Shannon's Index as independent variable. Srivastava et al. (2018) documented a positive link, with ROA but a negative link with Cost of Equity (COE). Kagzi and Guha (2018) found no relationship while Singh et al. (2022) reported insignificant results. Sen & Mukherjee (2019) used a unique variable, i.e., market value added to net worth, as the performance proxy on a sample of NSE listed firms and reported a positive link with independent female directors but no link with other independent variables. The Securities and Exchange Board of India (SEBI) has mandated that all listed businesses have at least one female director on their board of directors (Sikand, Dhami & Batra, 2013).

The positive impacts of gender diversity, tend to be diminished in countries where women are more economically engaged and empowered. This could be due to tokenism, but it implies that appointing female directors or imposing gender quotas can harm a company's performance in nations where cultural opposition is strong. In contrast to Italy and Norway, where governments have imposed gender quotas, "Asia's lack of government engagement is most noticeable"

Table 4: Review of Studies for Africa and Middle East

Sr. No.	Authors	Year of Publication	Journal of Publication	Market in Focus	Theoretical Foundation	Dependent Variable	Independent Variable	Sample	Link/Sign
1	Augustine Ujunwa	2012	Corporate Governance: the International Journal of Business in Society	Nigeria	AT, RDT	ROA	% FD	122 firms on Nigerian Stock Exchange (1991-2008)	Negative
2	Ararat et al.	2015	Corporate Governance: An International Review	Turkey	AT, SPT	ROE, MTBR	BI	100 large firms on BIST-100 Index 2006	Positive
3	Gyapong et al.	2016	Journal of Business Finance & Accounting	South Africa	TST, CMT	TQ	% FD, FDV, Diversity(Y/N)	245 firms on Johannesburg Stock Exchange (JSE) (2008–2013)	Positive
4	Kılıç & Kuzey	2016	Gender in Management: An International Journal	Turkey	AT, RDT	ROA, ROE, ROS	BI, % FD, FDV	149 Non-financial firms on BIST (2008-2012)	Positive
5	Solakoglu & Demir	2016	Management Decision	Turkey	NA	ROA, ROE, Avg. Monthly Return	Gender Dummy (when CEO/ GM is a woman), FD(n), % FD	BIST-100 Index (2002-2006)	Inconclusive
6	Sarhan et al.	2018	International Journal of Finance & Economics	Middle East and North African countries	AT, RDT, CMT	ROA, TQ	% FD	100 non-financial firms on national stock exchanges (2009-2014)	Positive
7	Paul Assenga et al.	2018	Corporate Governance: An International Journal of Business in Society	Tanzania	AT, RDT	ROA, ROE	% FD	10 firms on DSE (2006-2013)	Positive
8	Ararat & Yurtoglu	2020	Emerging Markets Review	Turkey	CMT	TQ	FDV, % FD	268 firms on BORSA Istanbul (2011-2018)	No Relationship
9	Okoyeuzu et al.	2021	Gender in Management: An International Journal	Nigeria	AT, RDT	EPS, ROA, TQ	% FD	15 Deposit Money Banks (2006-2018)	Positive
10	Asare et al.	2022	Journal of Money and Business	26 African Countries	RDT	Net Interest Margin, Risk-Adjusted ROA	% FD	366 Banks from 26 countries in 5 sub-regions of Africa (2007-2015)	Insignificant
11	Andoh et al.	2022	Corporate Governance: The International Journal of Business in Society	Ghana	AT, RDT, SHT, SWT	ROA, ROE, TQ	% FD	21 Listed firms(16 Non-financial firms + 5 Banks) on Ghana Stock Exchange (2004-2016)	Positive Significant FOR Listed Non-financial firms Insignificant for Listed Banks
12	Taha Almarayeh	2023	Journal of Financial Reporting and Accounting	Jordan	AT, RDT, TST	ROA, EPS, Dividend Yield	% FD	51 Non-financial firms on Amman Stock Exchange (2009-2018)	No Relationship

Source: Based on author's own excel mapping.

Table 5: Review of Studies for Asia Pacific

Sr. No.	Authors	Year of Publication	Journal of Publication	Market in Focus	Theoretical Foundation	Dependent Variable	Independent Variable	Sample	Link/Sign
1	Bonn et al.	2004	Asian Business & Management	Japan, Australia	AT, RDT	ROA, MTBR	% FD	169 Japanese and 104 Australian Manufacturing firms (1998-1999)	No Relationship in Japan Positive in Australia
2	Wang & Clift	2009	Pacific Accounting Review	Australia	AT	ROA, ROE , Shareholder Return	FD(n), % FD	243 large firms (2003-2006)	No Relationship
3	Mahadeo et al.	2011	Journal of Business Ethics	Mauritius	NA	ROA	FD(n), % FD	42 firms on Stock Exchange of Mauritius (2007)	Positive
4	Darmadi	2011	Corporate Ownership and Control	Indonesia	NA	ROA, TQ	% FD, BI	169 IDX Firms (2007)	Negative
5	Liu et al.	2013	Journal of Corporate Finance	China	RDT, TST, CMT	ROS, ROA	% FD, FDV	Chinese listed firms (1999 to 2011)	Positive
6	Nguyen et al.	2014	International Review of Economics and Finance	Vietnam	AT,RDT	TQ	% FD, FDV, BI	120 Firms on Ho-Chi-Minh Stock Exchange (HOSE) & Hanoi Stock Exchange (HNX) (2008 -2011)	Positive
7	Chapple & Humphrey	2014	Journal of Business Ethics	Australia	NA	ROA, TQ, Stock Returns, Book-to-Market & Market values of stock	% FD, FDV	577 ASX Listed firms (Jan 2004 - Sept 2011)	No Relationship
8	Low et al.	2015	Pacific-Basin Finance Journal	Hong Kong, South Korea, Malaysia and Singapore	AT, RDT, LT, SWT, SHT, Behavioural Th.	ROE	% FD	5503 Asian firms (2012-2013)	Positive
9	Vafaei et al.	2015	Australian Accounting Review	Australia	AT, RDT	ROA, ROE, TQ, Economic Measure (CFO/TA)	% FD, FDV	Top 500 firms listed in Australia (2005-2011)	Positive

Sr. No.	Authors	Year of Publication	Journal of Publication	Market in Focus	Theoretical Foundation	Dependent Variable	Independent Variable	Sample	Link/Sign
10	Srivastava et al.	2018	Management Decision	India	CMT,LT,Social Identity Th.	COE, ROA	FD(n), Independence of a female director	20 NSE Listed Companies (2001-2015)	Negative with COE Positive with ROA
11	Kagzi & Guha	2018	Benchmarking: An International Journal	India	RDT, Social Identity Th.	TQ	BI	126 KIFs on NSE (2010-2014)	No Relationship
12	Duppati et al.	2019	Applied Economics	India and Singapore	SWT, RDT	ROA, TQ	% FD	425 SGX & 1435 NSE Listed (2005-2015)	Positive
13	Pheng Lim et al.	2019	Equality, Diversity and Inclusion: An International Journal	Malaysia	AT	TQ	% FD, FDV, BI, SI	928 firms on Bursa Malaysia (2010-2016)	Negative
14	Aggarwal et al.	2019	International Business Review	India	AT, RDT	TQ, CAR	BI	380 firms on NIFTY 500 Index of NSE (2006-2015)	Positive for standalone firms, Negative for group-affiliated firms
15	Unite et al.	2019	Int Advances in Economic Research	Philippine	AT, SPT, Investor Bias Th.	ROA, ROE, TQ	% FD, BI, SI	200 firms on Philippine Stock Exchange-PSE (2003-2014)	No Relationship
16	Ullah et al.	2019	Corporate Governance: An international journal of business in society	Pakistan	AT	ROE, ROA, TQ	FDV, CEO Dummy	220 Non-financial firms on Pakistan Stock Exchange (2010-2017)	Positive
17	Sen & Mukherjee	2019	Journal of Commerce & Accounting Research	India	NA	Market Value Added to Net Worth	FD(n), % FD (Independent), Educated Female Directors & Overseas FD	139 Non-financial firms listed on NSE (2011-2016)	Positive with Independent Female Directors No Relationship with other variables
18	Sarkar & Selarka	2020	Emerging Markets Review	India	SWT, AT	TQ, ROA	FDV	1348 & 575 NSE Listed firms (2005-2016)	Positive
19	Chen & Hassan	2021	International Journal of Accounting & Information Management	China	AT, UET	TQ	% FD, FDV	461 firms on GEM Boards (2016-2018)	Negative

Sr. No.	Authors	Year of Publication	Journal of Publication	Market in Focus	Theoretical Foundation	Dependent Variable	Independent Variable	Sample	Link/Sign
20	Maji & Saha	2021	Management Research Review	India	AT, RDT	Market Capitalization (LnMC)	BI, SI	100 Non-financial firms on BSE (2013-2018)	Positive
21	Singhania et al.	2022	International Journal of Emerging Markets	India	AT, RDT	ROA, TQ	% FD, BI, SI	428 Non-financial S&P BSE 500 listed firms (2014-2021)	Positive with TQ if women present on prominent board committees. Insignificant with ROA
22	Lee & Thong	2022	Equality, Diversity and Inclusion: An International Journal	Global Sample of 30 Countries	NA	TQ	% FD	187 Listed tourism firms in 30 countries (2015-2020)	Positive
23	Singh et al.	2022	Society and Business Review	India	AT, RDT	TQ	% FD, BI, SI	26 IT firms listed on BSE (2013-2021)	Insignificant
24	Sharma & Dey	2022	Journal of Commerce & Accounting Research	India	NA	ROA, ROE, TQ, Net Interest Margin, Net NPAs	FD(n)	10 Large Public Sector Banks (2013-2019)	Insignificant
25	Yarram & Adapa	2023	International Journal of Managerial Finance	Australia	RDT, TST, CMT	ROA	% FD, BI, SI	Firms on ASX 300 Index (2004-2016)	No Evidence
26	Tariqul Islam et al.	2023	International Journal of Emerging Markets	Bangladesh	AT, RDT, Gender Identity Th.	ROA	% FD	183 Non-financial firms listed on Dhaka Stock Exchange (2007-2017)	Positive with Critical Mass
27	Abbas & Frihatni	2023	Journal of Capital Markets Studies	Indonesia	Social Identity Th.	Logit Distress	Nominal Scale (1 for placing women & men, 0 for only men)	467 Public firms (2018)	Lower financial distress for firms with gender diversity

Source: Based on author's own excel mapping.

(Catalyst, 2012a). Despite lobbying by organisations such as Women Corporate Directors (WCD) for gender equality on boards, "female boardroom appointments in most Asian nations have remained low in contrast to Western ones" (Catalyst, 2012b). Given the patriarchal structure of Asian countries, this conclusion is unsurprising. In terms of women's economic participation and opportunity subindex, Southern Asia remains farthest away from parity, closing just 37.2% of the gender gap. Pakistan and Afghanistan appear at the bottom of the regional and global ranking tables. In the East-Asia and Pacific region, Philippines and Singapore record the highest parity for this subindex.

Variables and Measurements

In this section, we shed light on the key metrics employed in previous research as proxies for measuring diversity and firm performance.

Measuring Women on Board

Our study's independent variable is the presence of females on the board of directors. "A gender diverse board has been defined as one that includes at least one female director" (Adams & Ferreira, 2009).

Female board membership has been measured by a dummy variable indicating their presence which takes value "1" if there is at least one woman on the board, otherwise "0" (Nguyen et al., 2014; Ararat & Yurtoglu, 2020; Saifiullah et al., 2022), and a continuous variable, reflected by the percentage of female directors on board (Rose, 2007; Jurkus et al., 2011; Sen & Mukherjee, 2019; Taha Almarayeh, 2023).

The primary measure of gender diversity in this study is the proportion of female directors on the board of directors which is determined by dividing the total number of directors by the number of female directors. This proxy has been used in earlier investigations with comparable results (Rose, 2007; Campbell & Minguez-Vera, 2008; Sarhan et al., 2018; Pheng lim et al., 2019; Chen & Hassan, 2021).

To measure diversity, Adams and Ferreira (2009), and Ntim (2015) used two key metrics: (i) the proportion of women/ethnic minority directors on the board; (ii) a dichotomous variable. Three dummy variables for gender diversity are created in some studies. The dummy variable takes the value of '1' if one/two/three female directors is/are present on the board and '0' otherwise (Liu et al., 2014; Brahma et al., 2020; Garanina & Muravyev, 2020).

The second metric comes from the critical mass hypothesis. According to this theory, for the rate of adoption of a social system's innovation to become self-sustaining and produce new development, people must accept it (Kanter, 1977). A critical mass of three or more women is necessary to bring about a significant change in the boardroom (Torchia et al., 2011; Gharbi & Othmani, 2022; Tariqul Islam et al., 2023).

Some researchers (Campbell & Minguez-Vera, 2008; Nguyen et al., 2014; Ararat, 2015; Uribe et al., 2018, Singh et al., 2022) have employed Blau's Index as a measure of board diversity. This index may be expanded to additional attributes because it is based on qualitative distinctions among members of a specific group (Harrison & Klein, 2007). It has been used to assess the board's diversity (of race, experience, gender, or ethnicity). This index is used to calculate diversity for each characteristic and then to create a composite board-level diversity index based on Blau's findings (1977). The gender diversity Blau's index goes from 0 to 0.5, indicating that the board has an equal number of men and women on it.

Another metric used in prominent studies (Campbell & Minguez-Vera, 2008; Pheng Lim et al., 2019; Maji & Saha, 2021) is the Shannon Index. The Shannon index has properties that are qualitatively comparable to those of the Blau index since it is a logarithmic measure of diversity. However, it will always produce a higher value than the Blau index and is more sensitive to tiny differences in the gender makeup of boards. The index's lowest value is zero, while the highest level of diversity is achieved when both genders are equally represented, providing a score of 0.69.

Measuring Firm Performance

Most studies in the United States have used Tobin's Q as a performance measure to analyse the relationship between business performance and governance characteristics. Given that stock market metrics are sensitive to investors' expectations, Bhagat and Bolton's (2008) choice of accounting performance measures is supported (Jackling, 2009).

TQ is a widely used statistic in the business world for determining the worth of a company (Lang et al., 2003; Campbell & Minguez-Vera, 2008; Adams & Ferreira, 2009; Mishra & Kapil, 2018). It indicates market expectations about a company's capacity to generate future cash flows, as well as the risk associated with that ability, unlike accounting-based financial measures which are derived from past events that are reported in accounting.

Gyapong et al. (2016) adopted TQ for three reasons: First, ROA and ROE are short-term indicators of performance, but TQ assesses long-term company value (Thomas & Eden, 2004). Second, accounting measures of performance (ROA and ROE) can be manipulated for short-term earnings in

comparison to TQ. Finally, TQ is a common company value metric in "governance-to-value studies" (Black et al., 2014).

A bulk of empirical research (Adams & Ferreira, 2009; Augustine Ujunwa, 2012; Marquez-Cardenas et al. and Singhania et al., 2022) used ROA or TQ or both as firm performance metrics. Sarhan (2018) has conducted research on this topic using TQ, a market-based statistic, and ROA, an accounting measure.

Papangkorn et al. (2019) concentrate on six key company success factors: ROA; basic earning power ratio (EBIT over total assets); earnings before interest, taxes, depreciation, and amortisation over total assets (EBITDA over total assets); TQ; market-to-book ratio of equity (MTB); and Peters and Taylor's Q (2017). The first three performance indicators are accounting-based, whereas the latter three are stock-based performance indicators. The researchers adopt both, market and accounting-based metrics as accounting-based measures might respond to the changes in the company's governance mechanism with much more delays (as per the accounting cycle), than the market-based metrics (Carton & Hofer, 2006). In recent studies involving banks, we find Net Interest Margin (calculated as Interest Revenue - Interest Expense/Total Assets) as a commonly used performance metric (Asare et al. and Sharma & Dey, 2022).

The definition/description of the proxies used to measure firm performance have been presented below.

Table 6: Firm Perfromance Measures and Description

Dependent Variable	Description
ROA (Return on Assets)	Ratio of Operating Income to Net Assets
ROE (Return on Equity)	Ratio of Operating Income to shareholders' equity
TQ (TOBIN'S Q)	Ratio between market value & assets of a firm (Carter et al., 2007)
ROS (Return on Sales)	Ratio of Operating Income and Net Sales
ROI (Return on Investment)	Ratio of Net Income to Invested Cpaital
EPS (Earning Per Share)	Ratio of profit after tax to total number of shareholders
MTBR (Market to Book Ratio)	Ratio of market value of equity to book value of equity
COE (Cost of Equity)	Calculated as per CAPM-: Risk-free Return + Beta(Market rate of return Minus Risk-free rate of return)
Stock Returns	Aggregate returns generated by portfolios of firms
Economic Performance Measure	Cash flow from operations divided by Total Assets
Market Capitalization	Natural Logarithm of Market Capitalization of the firm
TSR (Total Shareholder Return)	Realized rate of return incorporating dividend payments and share price appreciation (adjusted for share splits)
ROIC (Return on Invested Capital)	Net operating profit after tax divided by Invested Capital
Avg. Monthly Return in a year	Standard deviation of the monthly returns in a year (Market Performance Measure)
ROAN (Net Return on Assets)	Ratio of Net Income and Net Assets
MUB	Ratio of gross Margin to Net Sales
EBIT (Earnings before Interest & Tax)	Revenue Minus expenses, excluding interest and taxes
Stock Price Growth	Compounded annual growth rate of stock

Source: Author's own tabulation

DISCUSSION AND CONCLUSION

Gender diversity on boards of directors has been studied extensively to see how it affects company performance and characteristics. This paper attempts to pave out a path for future gender related research on board composition and structure in companies. Although this research has yielded a lot of information, the empirical data shows that the results are varied and that there is a lack of requisite integration and consolidation.

During our investigation, we discovered several noteworthy patterns to keep an eye on. To begin with, we anticipate

that as the workforce demographics in Europe, Asia, and the Americas change, more women will join the board of directors. Second, corporate governance scandals have resulted in new gender laws (French Gender Quota Law, 2011; Companies Act of India, 2013; Germany Gender Law, 2015) controlling firm board composition structures and processes, as well as the duties and responsibilities of independent directors. It is suggested that board diversity, including female representation, be improved in future investigations.

The pool of skilled, experienced women is nearly endless. However, industry and government must work together to meet the expectations of the talented young women so they may fully harness their abilities for the benefit of businesses, and the economy.

Governments all over the globe have become increasingly aware of the relationship between gender equality, particularly in the labour market, and economic development and prosperity, both via their own efforts and through their involvement in raising healthier, better educated children (Economist, 2006). Many governments monitor the implementation and efficacy of diversity policies and practices, and they design interventions based on reliable research findings. Female diversity research on corporate boards is an important tool for creating the framework for more equal gender representation at the highest levels of corporate decision-making.

According to the most recent Hampton-Alexander review (2023) FTSE companies have already met the 40% target for WOB three years ahead of schedule. The outcomes of this study show that the proposals for increased female representation on boards of directors and female executive directors are positive moves in the right direction.

To summarise, in today's complex and rapidly changing business environment, it appears that the advantages associated with heterogeneous groups' knowledge, perspective, creativity, and judgement may be superior to those associated with less diverse sets of people when it comes to improving the quality of decision making. Further research on "Board Gender Diversity" can be carried out on issues that relate board diversity to sustainability aspects like social reporting, ESG, risk ratings, sustainable finance, etc. Study on women on corporate boards is critical not just for academic purposes, but also for establishing the framework for change, resulting in more equitable and effective gender representation at corporate decision-making levels.

REFERENCES

Abbas, A., & Frihatni, A. A. (2023). Gender diversity and firm performances suffering from financial distress: Evidence from Indonesia. *Journal of Capital Markets Studies, 7*(1), 91-107.

Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, *94*(2), 291-309. doi:https://doi.org/10.1016/j.jfineco.2008.10.007

Ahern, K. R., & Dittmar, A. K. (2012). The changing of the boards: The impact on firm valuation of mandated female board representation. *Quarterly Journal of Economics*, *127*(1), 137-197. doi:https://doi.org/10.1093/qje/qjr049

Aliyu Abubakar, B., Garba, T., Abdullahi Sokoto, A., & Maishanu, M. M. (2021). Corporate board gender diversity and performance: Evidence from Nigerian Stock Exchange. *The Economic Journal of Nepal*, *34*(4).

Ararat, M., Aksu, M., & Tansel Cetin, A. (2015). How board diversity affects firm performance in emerging markets: Evidence on channels in controlled firms. *Corporate Governance: An International Review*, *23*(2), 83-103. doi:https://doi.org/10.1111/corg.12103

Ararat, M., & Yurtoglu, B. B. (2021). Female directors, board committees, and firm performance: Time-series evidence from Turkey. *Emerging Markets Review*, *48*. doi:https://doi.org/10.1016/j.ememar.2020.100768

Assenga, M. P., Aly, D., & Hussainey, K. (2018). The impact of board characteristics on the financial performance of Tanzanian firms. *Corporate Governance*, *18*(6), 1089-1106. doi:https://doi.org/10.1108/CG-09-2016-0174

Ben Slama, R., Ajina, A., & Lakhal, F. (2019). Board gender diversity and firm financial performance in France: Empirical evidence using quantile difference-in-differences and dose-response models. *Cogent Economics and Finance*, *7*(1). doi:https://doi.org/10.1080/23322039.2019.1626526

Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. *Journal of Corporate Finance, 14*, 257-273. doi:https://doi.org/10.1016/j.jcorp

Brahma, S., Nwafor, C., & Boateng, A. (2021). Board gender diversity and firm performance: The UK evidence. *International Journal of Finance and Economics*, *26*(4), 5704-5719. doi:https://doi.org/10.1002/ijfe.2089

Byron, K., & Post, C. (2016). Women on boards of directors and corporate social performance: A meta-analysis. *Corporate Governance: An International Review*, *24*(4), 428-442. doi:https://doi.org/10.1111/corg.12165

Campbell, K., & Mínguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of Business Ethics*, *83*(3), 435-451. doi:https://doi.org/10.1007/sl0551-007-9630-y

Carter, D. A., D'Souza, F., Simkins, B. J., & Simpson, W. G. (2010). The gender and ethnic diversity

of US boards and board committees and firm financial performance. *Corporate Governance: An International Review*, *18*(5), 396-414. doi:https://doi.org/10.1111/j.1467-8683.2010.00809.x

Carter, D., Simkins, B., & Simpson, W. (2003). Corporate governance, board diversity, and firm value. *The Financial Review*, *38*(1), 33-53.

Chairs, B., Author, C., Wang, M., & Kelan, E. (2013). The gender quota and female leadership: Effects of the Norwegian gender quota on board chairs and CEOs. *Journal of Business Ethics, 117*(3), 522-536.

Chapple, L., & Humphrey, J. E. (2014). Does board gender diversity have a financial impact? Evidence using stock portfolio. *Journal of Business Ethics*, *122*(4), 709-723.

Conyon, M. J., & He, L. (2017). Firm performance and boardroom gender diversity: A quantile regression approach. *Journal of Business Research*, *79*, 198-211. doi:https://doi.org/10.1016/j.jbusres.2017.02.006

Darmadi, S. (2011). Board diversity and firm performance: The Indonesian evidence. *Corporate Ownership and Control Journal*, *8*, 450-467.

Dezsö, C. L., & Ross, D. G. (2012). Does female representation in top management improve firm performance? A corporate board gender diversity and performance: Evidence from Nigerian Stock Exchange panel data investigation. *Strategic Management Journal*, *33*, 246-258.

Duppati, G., Rao, N. v., Matlani, N., Scrimgeour, F., & Patnaik, D. (2020). Gender diversity and firm performance: Evidence from India and Singapore. *Applied Economics*, *52*(14), 1553-1565. doi:https://doi.org/10.1080/00036846.2019.1676872

Mahadeo, J. D., Soobaroyen, T., & Hanuman, V. O. (2012). Board composition and financial performance: Uncovering the effects of diversity in an emerging economy. *Journal of Business Ethics*, *105*(3), 375-388. doi:https://doi.org/10.1007/s

Erhardt, N. L., Werbel, J., & Shrader, C. B. (2003). Board of director diversity and firm financial performance. *Corporate Governance: An International Review*, *11*(2), 102-111.

Garanina, T., & Muravyev, A. (2021). The gender composition of corporate boards and firm performance: Evidence from Russia. *Emerging Markets Review*, *48*.

Gharbi, S., & Othmani, H. (2023). Threshold effects of board gender diversity on firm performance: Panel smooth transition model. *Corporate Governance, 23*(1), 243-261.

Green, C. P., & Homroy, S. (2018). Female directors, board committees and firm performance. *European Economic Review*, *102*, 19-38.

Gulamhussen, M. A., & Santa, S. F. (2015). Female directors in bank boardrooms and their influence on performance and risk-taking. *Global Finance Journal*, 28, 10-23. doi:https://doi.org/10.1016/j.gfj.2015.11.002

Gyapong, E., Monem, R. M., & Hu, F. (2016). Do women and ethnic minority directors influence firm value? Evidence from post-apartheid South Africa. *Journal of Business Finance and Accounting*, *43*(3-4), 370-413. doi:https://doi.org/10.1111/jbfa.12175

Hoogendoorn, S., Oosterbeek, H., & Van Praag, M. (2013). The impact of gender diversity on the performance of business teams: Evidence from a field experiment. *Management Science, 59*(7), 1514-1528. doi:https://doi.org/10.1287/mnsc.1120.1674

Isidro, H., & Sobral, M. (2015). The effects of women on corporate boards on firm value, financial performance, and ethical and social compliance. *Journal of Business Ethics*, *132*(1), 1-19. doi:https://doi.org/10.1007/s10551

Jackling, B., & Johl, S. (2009). Board structure and firm performance: Evidence from India's top companies. *Corporate Governance: An International Review*, *17*(4), 492-509. doi:https://doi.org/10.1111/j.1467-8683.2009.00760.x

Jyothi, P., & Mangalagiri, J. (2019). Would firm performance be better with women directors? Evidence from India. *Vision*, *23*(2), 180-188. doi:https://doi.org/10.1177/0972262919840217

Kakabadse, N. K., Figueira, C., Nicolopoulou, K., Hong Yang, J., Kakabadse, A. P., & Özbilgin, M. F. (2015). Gender diversity and board performance: Women's experiences and perspectives. *Human Resource Management*, *54*(2), 265-281. doi:https://doi.org/10.1002/hrm.21694

Kim, D., & Starks, L. T. (2016). Gender diversity on corporate boards: Do women contribute unique skills? *American Economic Review*, *106*(5), 267-271. doi:https://doi.org/10.1257/aer.p20161032

Kılıç, M., & Kuzey, C. (2016). The effect of board gender diversity on firm performance: Evidence from Turkey. *Gender in Management*, *31*(7), 434-455. doi:https://doi.org/10.1108/GM-10-2015-0088

Kumar, P., & Zattoni, A. (2016). Corporate governance, board gender diversity and firm performance. *Corporate Governance: An International Review*, *24*(4), 388-389. doi:https://doi.org/10.1111/corg.12172

Liu, Y., Wei, Z., & Xie, F. (2014). Do women directors improve firm performance in China? *Journal of Corporate Finance*, *28*, 169-184. doi:https://doi.org/10.1016/j.jcorpfin.2013.11.016

Low, D. C. M., Roberts, H., & Whiting, R. H. (2015). Board gender diversity and firm performance: Empirical

evidence from Hong Kong, South Korea, Malaysia and Singapore. *Pacific Basin Finance Journal*, *35*, 381-401. doi:https://doi.org/10.1016/j.pacfin.2015.02.008

Maji, S. G., & Saha, R. (2021). Gender diversity and financial performance in an emerging economy: Empirical evidence from India. *Management Research Review*, *44*(12), 1660-1683. doi:https://doi.org/10.1108/MRR-08-2020-0525

Marinova, J., Plantenga, J., & Remery, C. (2016). Gender diversity and firm performance: Evidence from Dutch and Danish boardrooms. *International Journal of Human Resource Management*, *27*(15), 1777-1790. doi:https://doi.org/10.1080/09585192.2015.1079229

Marquez-Cardenas, V., Gonzalez-Ruiz, J. D., & Duque-Grisales, E. (2022). Board gender diversity and firm performance: Evidence from Latin America. *Journal of Sustainable Finance and Investment, 12*(3), 785-808. doi:https://doi.org/10.1080/20430795.2021.2017256

Mastella, M., Vancin, D., Perlin, M., & Kirch, G. (2021). Board gender diversity: Performance and risk of Brazilian firms. *Gender in Management*, *36*(4), 498-518. doi:https://doi.org/10.1108/GM-06-2019-0088

McKinsey and Company. (2020). *Ten things to know about gender equality.* Retrieved from https://www.mckinsey.com/featured-insights/diversity-and-inclusion/ten-things-to-know-about-gender-equality#/

Mirza, H. H., Mahmood, S., Andleeb, S., & Ramzan, F. (2012). Gender diversity and firm performance: Evidence from Pakistan. *Journal of Social and Development Sciences, 3*(5), 161-166.

Mishra, R. K., & Kapil, S. (2018). Board characteristics and firm value for Indian companies. *Journal of Indian Business Research*, *10*(1), 2-32. doi:https://doi.org/10.1108/ JIBR-07-2016-0074

Mohsni, S., Otchere, I., & Shahriar, S. (2021). Board gender diversity, firm performance and risk-taking in developing countries: The moderating effect of culture. *Journal of International Financial Markets, Institutions and Money*, *73*. doi:https://doi.org/10.1016/j.intfin.2021.101360

Moreno-Gómez, J., Lafuente, E., & Vaillant, Y. (2018). Gender diversity in the board, women's leadership and business performance. *Gender in Management*, *33*(2), 104-122. doi:https://doi.org/10.1108/GM-05-2017-0058

Nadeem, M., Suleman, T., & Ahmed, A. (2019). Women on boards, firm risk and the profitability nexus: Does gender diversity moderate the risk and return relationship? *International Review of Economics and Finance*, *64*, 427-442. doi:https://doi.org/10.1016/j.iref.2019.08.007

Narwal, K. P., & Jindal, S. (2018). Working capital management impact on corporate profitability relation with corporate governance: Evidence from Indian manufacturing sector. *Journal of Commerce and Accounting Research*, *7*(3), 8-12.

Nekhili, M., & Gatfaoui, H. (2013). Are demographic attributes and firm characteristics drivers of gender diversity? Investigating women's positions on French boards of directors. *Journal of Business Ethics*, *118*(2), 227-249.

Nguyen, T., Locke, S., & Reddy, K. (2015). Does boardroom gender diversity matter? Evidence from a transitional economy. *International Review of Economics and Finance*, *37*, 184-202. doi:https://doi.org/10.1016/j.iref.2014.11.022

Opstrup, N., & Villadsen, A. R. (2015). The right mix? Gender diversity in top management teams and financial performance. *Public Administration Review*, *75*(2), 291-301. doi:https://doi.org/10.1111/puar.12310

Palaniappan, G. (2017). Board characteristics relating to firms performance: A study on manufacturing firms in India. *Journal of Commerce and Accounting Research, 6*(1), 26-36.

Papangkorn, S., Chatjuthamard, P., Jiraporn, P., & Chueykamhang, S. (2021). Female directors and firm performance: Evidence from the great recession. *International Review of Finance*, *21*(2), 598-610. doi:https://doi.org/10.1111/irfi.12275

Pareek, R., Pandey, K. D., & Sahu, T. N. (2019). Corporate governance, firms' characteristics and environmental performance disclosure practices of Indian companies. *Indian Journal of Corporate Governance, 12*(2), 142-155. doi:https://doi.org/10.1177/0974686219881091

Provasi, R., & Harasheh, M. (2021). Gender diversity and corporate performance: Emphasis on sustainability performance. *Corporate Social Responsibility and Environmental Management*, *28*(1), 127-137. doi:https://doi.org/10.1002/csr.2037

Reguera-Alvarado, N., de Fuentes, P., & Laffarga, J. (2017). Does board gender diversity influence financial performance? Evidence from Spain. *Journal of Business Ethics*, *141*(2), 337-350. doi:https://doi.org/10.1007/s10551-015-2735-9

Rose, C. (2007). Does female board representation influence firm performance? The Danish evidence. *Corporate Governance, 15*(2), 404-413.

Rubino, F. E., Tenuta, P., & Cambrea, D. R. (2021). Five shades of women: Evidence from Italian listed firms. *Meditari Accountancy Research*, *29*(7), 54-74. doi:https://doi.org/10.1108/MEDAR-10-2020-1057

Sarhan, A. A., Ntim, C. G., & Al-Najjar, B. (2019). Board diversity, corporate governance, corporate performance, and executive pay. *International Journal of Finance and*

Economics, *24*(2), 761-786. doi:https://doi.org/10.1002/ijfe.1690

Sarkar, J., & Selarka, E. (2021). Women on board and performance of family firms: Evidence from India. *Emerging Markets Review*, *46*. doi:https://doi.org/10.1016/j.ememar.2020.100770

Sen, S. S., & Mukherjee, T. (2019). Board gender diversity and firm's performance: An evidence from India. *Journal of Commerce and Accounting Research, 8*(1), 35-45.

Sharma, D., & Dey, S. K., (2022). Impact of corporate governance facets on financial performance of Indian banks. *Journal of Commerce and Accounting Research, 11*(3), 34-44.

Singh, B., & Gupta, K. (2018). Relationship between directors' diversity and IPO underpricing: Evidence from India. *Journal of Commerce and Accounting Research, 7*(1), 30-39.

Smith, N., Smith, V., & Verner, M. (2006). Do women in top management affect firm performance? A panel study of 2500 Danish firms. *International Journal of Productivity and Performance Management, 55*(7), 569-593.

Soare, T. M., Detilleux, C., & Deschacht, N. (2021). The impact of the gender composition of company boards on firm performance. *International Journal of Productivity and Performance Management*, *71*(5), 1611-1624. doi:https://doi.org/10.1108/IJPPM-02-2020-0073

Srivastava, V., Das, N., & Pattanayak, J. K. (2018). Women on boards in India: A need or tokenism? *Management Decision*, *56*(8), 1769-1786. doi:https://doi.org/10.1108/MD-07-2017-0690

Terjesen, S., Sealy, R., & Singh, V. (2009). Women directors on corporate boards: A review and research agenda. *Corporate Governance: An International Review*, *17*(3), 320-337. doi:https://doi.org/10.1111/j.1467-8683.2009.00742.x

Torchia, M., Calabrò, A., & Huse, M. (2011). Women directors on corporate boards: From tokenism to critical mass. *Journal of Business Ethics*, *102*(2), 299-317. doi:https://doi.org/10.1007/sl0551-011-0815-z

Triana, M. del C., Miller, T. L., & Trzebiatowski, T. M. (2014). The double-edged nature of board gender diversity: Diversity, firm performance, and the power of women directors as predictors of strategic change. *Organization Science*, *25*(2), 609-632. doi:https://doi.org/10.1287/orsc.2013.0842

Tyrowicz, J., Terjesen, S., & Mazurek, J. (2020). All on board? New evidence on board gender diversity from a large panel of European firms. *European Management Journal*, *38*(4), 634-645. doi:https://doi.org/10.1016/j.emj.2020.01.001

Uribe-Bohorquez, M. V., Martínez-Ferrero, J., & García-Sánchez, I. M. (2019). Women on boards and efficiency in a business-orientated environment. *Corporate Social Responsibility and Environmental Management*, *26*(1), 82-96. doi:https://doi.org/10.1002/csr.1659

Vafaei, A., Ahmed, K., & Mather, P. (2015). Board diversity and financial performance in the Top 500 Australian firms. *Australian Accounting Review*, *25*(4), 413-427. doi:https://doi.org/10.1111/auar.12068

Vafaei, A., Henry, D., Ahmed, K., & Alipour, M. (2020). Board diversity: Female director participation and corporate innovation. *International Journal of Accounting and Information Management*, *29*(2), 247-279.

Van der Walt, N., & Ingley, C. (2003), Board dynamics and the influence of professional background, gender, and ethnic diversity of directors. *Corporate Governance: An International Review*, *11*(3), 218-234.

Vijay, T. S., & Sharma, M. (2012). Corporate governance mechanisms and firm performance: A study of Indian firms. *Journal of Commerce and Accounting Research, 1*(1), 11-17.

Wang, Y., & Clift, B. (2009). Is there a "business case" for board diversity? *Pacific Accounting Review*, *21*(2), 88-103. doi:https://doi.org/10.1108/01140580911002044

World Economic Forum. (2023). *Global gender gap report 2023.* Retrieved from https://www.weforum.org/reports/global-gender-gap-report-2023/