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UNVEILING THE DYNAMICS: CORPORATE GOVERNANCE AND EARNINGS MANAGEMENT IN PRESENCE OF BOARD GENDER DIVERSITY

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ABSTRACT

The main objective of this research is to identify the relationship between corporate governance and earnings management in the presence of board gender diversity. The unit of analysis is sugar sector of Pakistan, listed on PSX 100 index. This study has analyzed the data from 2011 to 2020. data collection is made through audited company's annual reports. Purposive sampling technique has been used on the basis of medium and large sugar companies. Moreover, moderated regression model has been used to empirically conjecture the hypothesis. The empirical results show that board gender diversity significantly moderates the relationship between corporate governance and earnings management. The result revealed that when board size is diverse through gender diversity it will reduce the earnings management in the firms. Overall, strong board gender diversity in corporate governance significantly reduces the earnings management in the sugar sector of Pakistan listed companies on PSX 1oo index, The findings suggest that regulators and policymakers should reconsider their policies and reforms to increase board gender diversity by increasing the number of female directors, including at least one woman, and the proportion of independent female directors on boards in Pakistan.

Keywords: Corporate governance; Earnings management; Board gender diversity; Board-size, Managerial ownership.

INTRODUCTION

The financial statement tells us a story. How much can we rely on it? Is there still an academic debate among the researchers, especially after the Enron Scandal has raised multiple questions about the validity and reliability of the financial statements? Soon after the endorsement of the Sarbanes Oxley act 2002, it was considered that financial manipulation could be prevented. However, in all the above debate, we cannot ignore the role of corporate governance, which provides protection to stakeholders in two ways. One is governing the companies in the best interest of the organization and the second is, preventing the companies from earnings management (Khalil & Ozkan, 2016; Mardjono & Chen, 2020). According to previous research suggested that, a complete corporate governance (CG) system plays a critical role in preventing earnings management (EM) behavior (Akbar, 2014; Bajra & Cadez, 2018). Since, earnings management is described as an intentional practice of utilizing accounting discretion to attain desired levels of reported accounting. In other words, managers have incentives to falsify accounting figures to deceive accounting information consumers about a firm's financial performance or achieve personal advantage at the expense of shareholders (Lee & Suh, 2022).

Moreover, a prominent feature of earnings management is manipulating the integrity of financial reporting since the accounting information contained in financial statements does not accurately reflect a corporate underlying economic situation (Bajra & Čadež, 2018). However, prior research indicates that the board's monitoring duty, as drawn from agency theory (Jensen & Meckling, 1976), is critical in minimizing agency problems and monitoring managerial choices in order to safeguard shareholders' interests and assure high-quality financial reporting. Besides that, under the resource dependence theory (Fama & Jensen, 1983a), the board's provision of resources function describes board members' abilities, experience, and competence that are likely to minimize the size of EM and enhance financial reporting quality (Kiel & Nicholson, 2003; Nelson & Devi, 2013). A corporate governance structure can be useful in reducing the impact of discretionary accounting (Akbar, 2015). According to Ararat, Claessens, and Yurtoglu (2020), corporate governance in developing economies confronts a variety of problems, including a centralized ownership structure, a low degree of institutional ownership, and non-existent or undeveloped debt and equity markets. The country effect is particularly essential for explaining the influence of corporate governance structure on earnings quality (Marra, 2021).

In order to mitigate earnings management issues, board gender diversity is attracting significant attention from policymakers, regulators, investors, firms, academics, and the general public, as the proportion of female directors on corporate boards of directors continues to grow slowly but gradually (Li & Wahid, 2018; Pathan & Faff, 2013). Numerous studies have demonstrated how gender diversity on boards of directors may increase the accuracy and openness of financial information. Additionally, the appointment of female directors strengthens the board's independence, effectiveness, efficiency, and oversight functions (Amin et al., 2022). In other words, the inclusion of female directors on boards of directors adds to the improvement of corporate governance procedures, which in turn improves corporate reporting standards. However, it is recommended by country laws to incorporate the female directors in the governance board. Thus, Board gender diversity is getting a lot of attention from policymakers, regulators, investors, businesses, researchers, and the public (Anvari, Mohammadi, Kahoo, Khan, & Abdullah, 2020). A diverse board of directors can increase the accuracy and openness of financial data. The appointment of female directors, improves the board's independence, functioning, efficiency, and monitoring activities (Damak, 2018; Orazalin, 2019a).

This study is contributing into existing literature in three ways. First, there is limited empirical information available on the importance of corporate governance in controlling the earnings management, especially in the presence of board gender diversity. Although Effective CG mechanisms in terms of board features, may reduce the earnings management (Di Meo, Lara, & Surroca, 2017; Bajra, & Čadež, 2020). On other hand, Stedham, Yamamura and Beekun (2007) demonstrating that female directors behave more ethically than male directors due to their unique approach to moral thinking. In the light of above empirical discussion we can pose that indirect influence of board gender diversity impact on corporate governance and earnings management relationship. In fact Board independence is very successful in discouraging EM practices, according to the dominant finding of previous studies (Fatma & Chouaibi, 2021; Türegün, 2018).

In contrast to this, certain corporate governance indicators like; Board Size (B-SZ), Non-executive Directors (NED), and Role Duality (RD), Top five shareholders (Top5) and shareholdings held by directors (M-OWN) could not established a link with earnings management. Thoug, previous some previous studies like; (Yazdanfar & Öhman, 2015), (Kunst & Beugelsdijk, 2018), (Wang & Shailer, 2015) and (Fuzi, Halim, & Julizaerma, 2016) could only establish a link with performance. To put it another way, independent directors are appointed to boards just to satisfy the formal requirements of good CG practices, not to increase efficiency (Mahmood & Orazalin, 2017). Furthermore, due to knowledge asymmetry between management and outside independent directors, outside directors may not be able to properly judge the trustworthiness of accounting information (Zahoor et al., 2022). Now it is evidently clear that without the role of board gender diversity, corporate governance- earnings management linkages only give a partial picture. As a result, it is a contribution of our research, as current governance-value studies are hampered by this crucial missing connection.

The Second contribution of this research is to establish a model which captures the indirect link in the context of board- (moderating regression) gender diversity. Moreover, model demonstrated that moderating variable board gender diversity constrains EM practices and, as a result, improves the quality of accounting information. In this regard, the study adds to the existing literature on agency theory (Fama & Jensen, 1983b; Hillman & Dalziel, 2003) by suggesting how the quality of accounting information can mitigate information asymmetry between agents and principals. The third contribution is to evaluating the various corporate governance aspects separately, unlike earlier studies in the Pakistani context. There are no researches in Pakistan which measure at once direct and indirect relationship; the impact of corporate governance on earnings quality, in the presence of board gender diversity. Finally, this study only incorporates the firms of the sugar sector, which is listed on the PSE 100 index and will analyze on comprehensive-time range 2011 to 2020. The reason behind taking extensive time and listed companies are as follows; each year, company corporate governance structure changes, ultimately affecting the earnings quality in the presence of board gender diversity.

LITERATURE REVIEW

Corporate Governance in Pakistan

The Security Exchange Commission of Pakistan regulates the corporate governance rules of behavior in Pakistan. It mandates that all publicly traded businesses must follow standard operating procedures for corporate governance (Ali et al., 2021), which they must disclose in their annual reports to all stakeholders. The SECP's corporate governance procedure guarantees that listed firms on the PSX execute business operations in accordance with the highest ethical standards in order to safeguard the interests of stakeholders. The majority of businesses in Pakistan are run by families. As a result, ownership is a delicate topic, especially for publicly traded firms. In view of these facts, SECP implemented corporate governance early and published a handbook for listed firms in 2002. It contains the compliance procedure of corporate governance structure by following the Cadbury Report UK. Besides, technical assistance also provided by central bank by enlisted the approved auditor list that ensures the corporate governance compliance in the company. Although, a landmark reform again incorporated in 2017 by replacing 2011 corporate governance code of conducts. The ultimate purpose behind this incorporation is to force firms to enhance their financial transparency and avoid account manipulation.

Board-Size Impact on Earnings Management in The Presence of Gender Diversity

Gender diversity on boards has been shown to increase transparency in financial reporting Orazalin (2019b). The research implies that having more women on boards might improve reporting quality, as well as raise the board's efficacy throughout the board's range of responsibilities, from monitoring and advising to ethical and preventing opportunistic behavior in EM practices (Armuña et al., 2020). One of the key roles of corporate boards, according to agency theory, is monitoring. There will be less opportunities for manipulation if the board has a higher proportion of women directors who are more likely to increase the efficacy of monitoring over the quality of reporting processes. While Hossain et al. (2021) imply that the earnings quality of enterprises improves with the presence of female directors on corporate boards, Orazalin (2019b) suggests that female involvement indicates a board is less likely to participate in unethical acts like EM.

Another major factor that influences the quality of financial reports is board size (Bajra, & Čadež, 2020). Previous study is presenting that larger corporate boards are more successful in mitigating EM because they allow board members to benefit from their experiences, knowledge, and abilities, thereby supporting the resource dependency (Marnet, 2008). However, the findings of earlier researchers are varying while developing the relationship between board size and earnings management practices. It is perceived that; larger boards are more successful in reducing EM practices. In a similar way, larger boards, according to (Khalil & Ozkan, 2016) have a key influence in restricting EM practices. (Fatma & Chouaibi, 2021) conjectured that businesses with larger boards are linked with lesser EM practices in the form of sales manipulation. Other researches have also shown that board size and EM have a negative relationship (Cheng, 2008; Klein, 2002; Thinh & Tan, 2019). On contrary to this (Jensen, 1993) support the idea that smaller boards are more successful at regulating functions than bigger boards. As a matter of fact, Due to the rich and unique knowledge possessed by different directors, the resource dependency hypothesis claims that variations in gender, such as ethical sensitivity and risk aversion, increase the quality of information supplied by the board to executives. (Di Meo et al., 2017); Gullett, Kilgore, and Geddie (2018) Arguing that female directors enhance the company board's ability to check the integrity of financial reporting methods and so dissuade accounting reporting aggressiveness.

This research provides a unique addition by drawing on agency theory and the other studies mentioned above to examine the direct impact of board gender diversity on EM practices and its moderating influence on the link between CG reporting and EM in the Pakistani market. The discrepancy between CG and EM findings may be clarified by this new data. The research concludes that the presence of female directors strengthens the CG-EM link and that board gender diversity contributes significantly to lowering EM. Now in the light of above discussion we can postulate the following hypothesis:

H_1: Board-size impact on earnings management in the presence of gender diversity.

Non-Executive Directors Impact on Earnings Management in the Presence of Gender Diversity

Stakeholder theory is a perspective on management strategy and ethics that was pioneered by (Freeman, 2010). The primary tenet of this theory is that an organization's performance is contingent upon the manager's interaction with stakeholders such as investors, creditors, employees, consumers, suppliers, the state, and other entities engaged in attaining the enterprise's goals (Lian, Xu, & Zhu, 2022). According to the stakeholder theory, one firm with a diversified Board of Directors is appropriate and offers numerous benefits for stakeholders. The Role of non-executive directors in controlling the earnings management cannot be ignoring. Since, Board optimal composition with the blend of non-executive director may help to alleviate the agency problem. However, NED also plays an important role in the monitoring and controlling the opportunist behavior of the management.

A board comprises of independent directors May safely guard batter for the resource of organization and provides strategic direction for controlling the earnings management. Gender diversity at the senior management level in America also has a good and significant effect on earnings management (Chen & Gavious, 2016). Similarly, firms with a female- as Independent director would perform better than those with a male- independent director top management team (Asian Development Bank, 2016). On contrary to this, in emerging countries like China, gender diversity as independent director have no effect on earnings management practices. However there are others factors which have influence on earnings management like education levels, environment, and age (Cumming, Leung, & Rui, 2015; Ginesti, Drago, Macchioni, & Sannino, 2018). Now in the light of above discussion we can postulate the following hypothesis:

$H_{2:}$ Non-Executive Directors impact on earnings management in the presence of gender diversity.

Role Duality Impact on Earnings Management in The Presence of Gender Diversity

Another critical issue in corporate governance is the phenomenon of role duality, in which the CEO serves as chairman of the board. Guillet, Seo, Kucukusta, and Lee (2013) Concluded that CEO duality benefits organizations' performance. Duru, Iyengar, and Zampelli (2016) Demonstrate that CEO duality has a considerably negative effect on business performance as a result of management entrenchment. Apart from that, the literature on the relationship between CEO duality and earnings management is inconsistent. Although, CEO Duality creates opportunities for power consolidation, which can result in managerial discretion. Splited CEOs will conduct more effective oversight (Cornett, Marcus, & Tehranian, 2008). This will be different if CEO Duality exists, as this may reduce the effectiveness of monitoring actions and may result in a high amount of discretionary accrual. On contrary to this, Ghoshroy, Adams, Zhang and Güney (2017) emphasize the effect of combining the CEO and Board Chairman's duties on earnings management. The author emphasized that a sound governance ethic necessitates that the two offices be kept distinct, emphasizing that with a strong concentration of authority in one individual, earnings management is likely to increase. In a similar way, Fondas and Sassalos (2000) suggested that, if role duality is heterogeneous then it is more efficient as compare to homogenous role duality. The participation of female directors as chairman or CEO has been linked to earnings management. Thus, involving women in board deliberations will improve the board's decision-making (Ran et al., 2021). Now in the light of above discussion we can postulate the following hypothesis:

$H_{3:}$ Role Duality impact on earnings management in the presence of gender diversity.

Top-5 Shareholdings Impact on Earnings Management in The Presence of Gender Diversity

Moral hazard issues typically arise as a result of the separation of control and ownership that occurs as a result of concentrated ownership. Concentration of ownership refers to the ownership of shares by individual investors, institutions, and block shareholders. In other words, investors who possess at least 5% of the firm's shares. (Wang & Shailer, 2015) Meta regression study reveals a substantial negative relationship between ownership concentration and firm performance. Another study (Nguyen, Evans, & Lu, 2017) demonstrated that ownership concentration has a significant influence in preventing independent directors from performing an active monitoring role in governance. Furthermore, Liu and Zu (2007) conducted study on the effects of GCG on earnings management, and one of the GCG's level appraisers is Top five Shareholdings, which refers to big shareholders who become controlling shareholders. The existence of a controlling stakeholder will result in expropriation of minor shareholders. According to several Corporate Governance Reports, the more the dispersion of a firm's ownership, the more effectively GCG is used in the company. Claessen et al. (2000) and Fan and Wong (2001) demonstrate that concentrated ownership, particularly a single owner, impairs GCG application in the company and results in more earnings management practises. In order to deter the controlling shareholder female presence in the board plays an important role. Thus, Armuña et al. (2020), the presence of women on the board of commissioners has a significant impact since women exert greater control over the operation of the business and provide advise to the director. The assignment will have an indirect effect on the EM practises reported by the company, as the board of commissioners has the authority to regulate the policies and actions of the directors on financial reporting. The more women on the board of commissioners, the less likely earnings management will be possible. Now in the light of above discussion we can postulate the following hypothesis:

$H_{4:}$ Top-5 shareholdings impact on earnings management in the presence of gender diversity.

Managerial Ownership Impact on Earnings Management in The Presence of Gender Diversity

Convergence of interest was used to describe the relationship between a director's stock holdings and the firm's performance. When directors have a stronger financial stake in their companies, shareholder wealth maximization is reduced. According to agency theory, the agent's and principal's interests are inherently misaligned. It can be aligned if the agent offers ownership; in this case, the agency problem is resolved. The study's findings supported that providing agents with ownership benefits the firm's performance (Kunst & Beugelsdijk, 2018). Likewise, Wang (2006) supports this by claiming that ownership structure has a significant impact on reported earnings. According to previous research, different ownership structures need different incentives for controlling and monitoring a company's management (Haider, & Tehseen, 2022). According to the same study, the authors assert that the ownership structure's constraining effects are greater when insiders own a smaller proportion of the stock. On the other hand, when insiders own a large proportion of shares, the relationship between insider ownership and earnings management reverses, a finding consistent with the entrenchment theory, which stated that high levels of insider ownership may prevent insiders from making value-maximizing decisions, resulting in an increase in earnings management (Cornett, McNutt, & Tehranian, 2009). In accordance with the findings of (Morck, Shleifer, & Vishny, 1988), recent studies by (Al-Fayoumi, Abuzayed, & Alexander, 2010; Isenmila, 2012) also discovered a positive, statistically significant link between insider ownership and earnings management. Bergstresser and Philippon (2006) shown that when a CEO's compensation is contingent on the value of stock and options, the probability of profit manipulation increases. Krishnan and Parsons (2008), discovered that companies with more female directors had a higher quality of earnings management, arguing that women are more ethical in their judgement and behaviour than males. In contrast to these findings, (Sun, Liu, & Lan, 2011; Usman et al., 2018), discovered no indication that female representation in the board had an effect on earnings management. Since it is clear that woman proportion in board reduce the un-necessary influence of ownership concentration. Now in the light of above discussion we can postulate the following hypothesis:

$H_{5:}$ Managerial Ownership impact on earnings management in the presence of gender diversity.

RESEARCH METHODOLOGY

The data for this study was derived from sugar sectors of the PSX 100 index. Sugar companies were chosen based on their market capitalization, with the population consisting entirely of big and medium-sized companies. Pakistan has just two sugar mills when it gained its independence in 1947. Inadequate production from these plants meant that sugar had to be bought from outside, resulting in a significant outlay of foreign currency. In 1997–1998 the country has 75 sugar mills that together produced 2.4 million metric tonnes of sugar. Sugarcane is a major cash crop and industrial essential in Pakistan (Rasheed & Safdar, 2018). It is Pakistan's second-largest agro-sector, behind the textile industry. Pakistan ranks 15th in global sugar output, 5th in sugar cultivation area, and 60th in sugar yield. Based on different provinces of Pakistan (i.e, Punjab, Khyber Pakhtunkhwa (KPK), and Sindh) together have 83 sugar mills at the moment. In addition to sugarcane is used to produce a variety of other goods, such as alcohol for the pharmaceutical industry, bagasse for paper production, and press mud that is used as a source of organic matter and energy in the brick manufacturing process. The purpose of this purposive sample is to ascertain the results and generalize them to the whole population- all sugar industries listed on PSX 100 index. The research spans the years 2011 to 2020, when it became required to disclose corporate governance standards. A list of selected companies on the basis of above mention describition has been enclosed in Table 1.

Table 1
list of selected companies

Sr No	Name	Average Investment In Million	Average Market share Capitalization in Million
1	Mehran Sugar Mill	2,310	1,276.05
2	Alabbas sugar mill	666.209	1,902.469
3	Alnoor sugar mill	1,742.55	1,004.47
4	chashma sugar mill	3,867.85	1,434.60
5	Deewan sugar mill	992.37	3,325.60
6	Baba farid sugar mill	253.26	472.50
7	Adam sugar mill	901.35	3,659.25
8	Habib sugar mill	9,247.57	3,750.00
9	Husein sugar mill	814.89	850.00
10	Mirpurkhas sugar mill	1,101.25	538.21
11	sanghar sugar mill	(712.90)	597.30
12	noon sugar mill	(306.44)	825.88
13	JDW Sugar Mill	3,395	12910
14	TSML Sugar Mill	3,600	21,557,908
15	FRSM sugar mill	402	946,520.67

Furthermore, for this study, deductive approach will use to testify the developed hypothesis. By using the applied research this research will unfolds two asspects; one is exploring the in-depth relationship between corporate governance and earnings management in the presence of board gender diversity through moderation analysis. Although, Moderator factors modify the intensity and/or direction of the relationship between a predictor and an outcome, therefore increasing, decreasing, or altering the predictor's effect. Typically, moderation effects are addressed in terms of an interaction between factors or variables, where the effects of one variable are dependent on the values of the other variable in the study (Aiken, West, & Reno, 1991). The second aspects of this research is making unbiased analysis by controlling the endogenity problem in the regression analysis.

Measurement of Variables

Moreover, Table 2 is representing the operationalization of all variables. For this research Panel data regression analysis will use with incorporated moderator variable in STATA. All OLS assumption will hold true while incorporated moderated regression model. For detail of measurement of variables here is the table of operationalization of variable. There are five independent variables are: Board Size, Non-executive Directors (NED), and Role Duality (RD), Top five shareholders (Top5) and shareholdings held by directors (M-OWN). These indicators use in previous studies on corporate governance (Wang &

Shailer, 2015; Yazdanfar & Öhman, 2015; Fuzi et al., 2016; Kunst & Beugelsdijk, 2018). The control variables for this research are: gearing (Brown et al., 2014), Firm size (F-SZ).

Beside that moderating variable board gender diversity is measuring through proxy of 0 and 1. This done by observing each company annual reports and will identify; if Female is the CEO of Board then 1 otherwise zero. This method of measuring is in line with previous researches (Mahmood & Orazalin, 2017; Suyono & Al Farooque, 2018; Hussain et al., 2020). In a similar way, dependent variable is earnings management which is measuring through current discretionary accruals practices by the managers. It is often observed that manager of the company make long term and short-term earnings manipulation by using discretionary accrual.

Table 2
Operationalization of all Variables

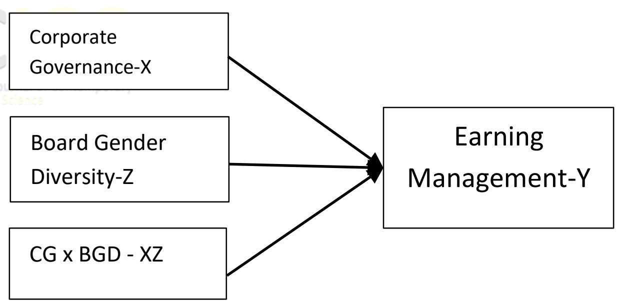
Variables	*Descriptions*	*Operationalization*
Corporate Governance		
B-size	Board Size	Total number of directors on the board. As much numbers of Directors as much larger the board.
NED	Non-Executive Directors: Represent Board Independence	NED/Total Directors, value represent percentage of Board Independence
RD	Role Duality: Chairman of Board and CEO are Same	Assign 1 If Chairman is also the CEO of the company in other case 0
Top-5	Shareholdings held by top 5 Major shareholders	The proportion of share owned by 5 largest shareholders/Total Share outstanding
M-OWN	Shareholdings held by Directors.	The proportion of share owned by Executive Directors/Total Share Outstanding
CGS	Corporate Governance Score	A discrete value; Higher value indicate strong CG and vice versa
Gender Diversity		
BGD	Gender Diversity	If Female is the CEO of Board, then 1 otherwise zero
Earnings Management		
EM	Earnings Management	Modified Jones Model
Control Variables		
Others-Control Variables	Gearing (Brown et al., 2014), Firm size (F-SZ) and	GER: Total Debt/Total Equity, F-SZ: Log of Firm Assets

Becker, DeFond, Jiambalvo, and Subramanyam (1998), suggest that managers have more choice over present accruals than they have over long-term accruals. We estimate current discretionary accruals in this paper using a modified Jones model (Dechow, Sloan, & Sweeney, 1995). To estimate current accruals (DeFond & Jiambalvo, 1994; Subramanyam, 1996) both removed industry groups with fewer than six observations from the population. The following cross-sectional regression equation is adopted.

$$\frac{CA_{it}}{A_{it-1}} = \beta_{it}\left[\frac{1}{A_{it-1}}\right] + \beta 1_{it}[(\Delta REV_{it} - \Delta REC_{it})/A_{it-1}] + \varepsilon_{it} \text{-----------(1)}$$

Whereas, CA is representing current accruals derining through net icome minus cashflow form operation. Ait-1 is representing total assets at the beginning of year. In the same way, ΔREV donates the change in revenue and ΔREC is the change in receivable. The subsceipt i_i is representing for firm i in year t. Moreover, residual of the equation-1 is representing current dicreationary accrual which is the measure of earnings management. This method of measuring is in line with previous research that has used absolute levels of discretionary accruals as a proxy for a mixed effect of upward or downward earnings manipulation (Gabrielsen, Gramlich, & Plenborg, 2002; Warfield, Wild, & Wild, 1995).

Figure 1
Conceptual Model



Econometric Model

To test the hypothesis of this study; corporate governance impact on earnings management in the presence of board gender diversity following moderated regression model has been employeed:

$$EM_{it} = \beta_0 + \beta 1(B - Size)_{it} + \beta 2(NED)_{it} + \beta 3(RD)_{it} + \beta 4(Top - 5)_{it} + \beta 5(M - own)_{it} + \beta 6(BGD)_{it} + \beta 7(BGDX\ B - Size)_{it} + \beta 8(BGDX\ NED)_{it} + \beta 9(BGDX\ RD)_{it} + \beta 10(BGDX\ Top - 5)_{it} + \beta 11(BGDX\ M - own)_{it} + \beta 12(Firm\ Leverage)_{it} + \beta 13(Firm\ Size)_{it} + \varepsilon_{it} \text{--------------------------(2)}$$

Where EM is representing earnings management as depenedent variable and β_1 to β_5 is representing corporate governance proxies and β_6 is representing moderating variable as board gender diversity as presented in Figure 1. In a similar way, β_7 to β_{11} is representing interactioon terms for moderating regression analysis. Beside that β_{12} , β_{13} is represnting as control variable leverage and firm size. The moderated regression model determines the impact of independent variable corporate governance on dependent variable earnings management in the presence of moderating variable board gender diversity. Moreover, moderator variable board gender diversity may modify the intensity and/or direction of the relationship between the corporate governance and earnings management. Thus, moderation effects are explained in terms of an interaction between factors or variables, where the effects of one variable are dependent on the values of the other variable in the analysis (Aiken et al., 1991).

RESULT AND DISCUSSION

Table 3 is representing descriptive statistics of the constructs under this research. It is indicating that on average 34 percent companies in sugar sector are involved in earnings management. On average board size is around 8 percent which is good and consider as large board. NED proportion in all sugar sectors are average 5%, suggesting that NED remain in the majority. Besides, only 2% variation found regarding change in NED.

Table 3

Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
EM	150	.034	.015	0	.1
Board Size	150	7.86	.89	7	10
Non-Executive-Directors	150	4.967	1.599	1	8
Role Duality	150	.293	.457	0	1
Top-5 Shareholdings	150	62.53	.677	35.2	77.5
Managerial Ownership	150	6.36	.707	4.81	7.85
Board Gender Diversity (Female)	150	0.29	.5	0	1
Leverage	150	.601	.17	.12	.96
Firm Size (**In hundreds**)	150	14.892	1.109	10.96	17.37

The average role duality in firms is 29%, which evident that normally chairman is not the CEO of the company. It seems that role duality is very rare practice in sugar sector of Pakistan. However, on average variation in role duality is 0.46%, which is representing; with the passage of time and even after the mandatory incorporation of corporate governance role duality is no change in firms. In a similar way Top-5 shareholding is 6.25% which is representing concentrating ownership is not very much high, which is indicating that ownership concentrated structure is not very much active in the sugar sector of Pakistan. Furthermore, managerial ownership is only 6.36% and board gender diversity is 54%. After the incorporation of corporate governance code of conduct in the listed companies of Pakistan female is the integral part of board. However, these things are representing diversity in the culture and deter the dominant male role on apex position. On average leverage is 0.60% which is indicating that sugar sector has optimal use of leverage for financing. Moreover, on average firm size is 15% which is indicating that big market capitalized companies is the part of population.

Table 4 is representing the pairwise correlation analysis among the constructs. According to analysis earnings management has significant up to different level. Board size and earnings management is negatively correlated. In the similar way Non-executive Directors and earnings management is negatively correlated.

Table 4

Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) EM	1.000								
(2) Board Size	-0.050*	1.000							
(3) NED	-0.099**	0.369*	1.000						
(4) RD	-0.060**	-0.030	-0.336*	1.000					
(5) Top-5	-0.073*	0.214*	0.139	0.101	1.000				
(6)M-own	-0.246*	-0.233*	-0.189	0.082	-0.337*	1.000			
(7)BGD	-0.081*	-0.131	-0.347*	0.154	-0.165	0.187	1.000		
(8) Lev	-0.053*	-0.220*	-0.478*	0.161	-0.200	-0.004	0.173	1.000	
(9) Firm size	0.144	0.192	0.068	-0.172	0.190	0.205	0.089	-0.084	1.000

*Note: *** p<0.01, ** p<0.05, * p<0.1*

Beside that role duality, Top-5 shareholdings, Managerial ownership, board gender diversity and leverage is negatively correlated with earnings management. This negative correlation is indicating that it has adverse relationship with earnings management. Table 5 is representing the moderating regression results. The overall model is significance, and Overall R- square is 0.15%. Although it has been found Board size has significant at level 5% but negative impact on earnings management, it means one unit increase in Board size will bring resultant decrease in earnings management up to -1.191 units. Likewise, NED has significant at level 5% but negative impact on earnings management, it means one unit increase in NED will bring resultant decrease in earnings management up to -1.389 units. Besides that, Role Duality has significant at level 10% but negative impact on earnings management, it means one unit increase in RD will bring resultant decrease in earnings management up to -1.158 units.

Table 5

Moderated Regression Results

EM	Coef.	St. Err.	t-value	p-value	Sig
Board Size	-1.191	.168	-7.089	.001	**
NED	-1.389	.265	-5.24	.001	**
RD	-1.158	.148	-7.82	.01	*
Top-5	1.174	.116	10.12	.01	*
M-own	.236	.139	1.70	.09	*
BGD	3.084	1.53	2.02	.044	**
LEV	-1.049	.101	-10.38	.625	**
Firm Size	-1.119	.094	-11.90	.001	**
BGD*BSZ	-1.811	.909	-1.99	.372	**
BGD*NED	-2.024	.466	-4.34	.002	***
BGD*RD	-1.097	.168	-6.52	.000	***
BGD* Top-5	-2.317	.858	-2.70	.007	***
BGD* M-own	-2.513	.849	-2.95	.004	***
Constant	0	.079	0.00	1	
Mean dependent var	-0.000	SD dependent var		1.000	
Overall r-squared	0.146	Number of obs		150.000	
Chi-square	23.313	Prob > chi2		0.038	
R-squared within	0.103	R-squared between		0.250	

**** p<.01, ** p<.05, * p<.1 All least square assumptions has been fulfilled!*

In fact, Top-5 shareholdings has significant at level 10% but positive impact on earnings management, it means one unit increase in Top-5 shareholdings will bring resultant increase in earnings management up to 1.174 units. In a similar way Board gender diversity has significant at level 5% but positive impact on earnings management, it means one unit increase in BGD will bring resultant increase in earnings management up to 3.084 units. However, firms financial leverage has significant at level 5% but negative impact on earnings management, it means one unit increase in financial leverage will bring resultant decrease in earnings management up to -1.049 units. Firm size has significant at level 5% but negative impact on earnings management, it means one unit increase in firm size will bring resultant decrease in earnings management up to -1.119 units.

Now the second fold of the study is empirically testing the moderating regression effect in relationship between in-dependent and dependent variables. This moderation not only changes the effect but also change the direction of the variables. Thus, board size has significant impact at 5% level, on earnings management in the presence of board gender diversity. It means strong board gender diversity in the board size reduce the earnings management up -1.811 units. These results are consistent with the findings of (Damak, 2018; Garcia-Sanchez, Martínez-Ferrero, & García-Meca, 2017; Harakeh, El-Gammal, & Matar, 2019). In a similar way, NED has significant impact at 1% level, on earnings management in the presence of board gender diversity. It means strong board gender diversity in the Non-Executive-Directors reduce the earnings management up -2.024 units (Mohammad, Wasiuzzaman, & Salleh, 2016; Orazalin, 2019b).

Role Duality has significant impact at 1% level, on earnings management in the presence of board gender diversity. It means strong board gender diversity in the Role duality reduce the earnings management up -1.097 units (Zalata, Tauringana, & Tingbani, 2018). In addition, Top-5 shareholdings have significant impact at 1% level, on earnings management in the presence of board gender diversity. It means strong board gender diversity reduces the influence of concentrated ownership which in resultant decrease in the earnings management up -2.317 units (Duru et al., 2016). In the last, Managerial ownership have significant impact at 1% level, on earnings management in the presence of board gender diversity. It means strong board gender diversity reduces the influence of managerial ownership which in resultant decrease in the earnings management up -2.513 units (Usman et al., 2018). Therefore, all hypotheses were accepted as shown in Table 6.

Table 6

Hypothesis Empirical Results

Hypothesis	Description	Results
H_1	Board-size impact on earnings management in the presence of gender diversity	Supported
H_2	Non-Executive Directors impact on earnings management in the presence of gender diversity	Supported
H_3	Role Duality impact on earnings management in the presence of gender diversity	Supported
H_4	Top-5 shareholdings impact on earnings management in the presence of gender diversity	Supported
H_5	Managerial Ownership impact on earnings management in the presence of gender diversity	Supported

PRACTICAL & SOCIAL IMPLICATIONS

This research has practical implications for investors, Security Exchange commission of Pakistan and Government. Investors are keen to learn about strong governance practices really reduce earnings management. SECP will able to learn about the strong impaction of corporate governance code of conduct in sugar sector. The third and last implication is for Government, which is key stakeholder in tax collection. If sugar sector will have less earnings management, then it has fair tax payer. Firms usually make tax evasion through earnings management.

In Pakistan board gender diversity is an emerging issue, especially for the companies. Where companies are reluctant to include female in the board. After the 2017, certain changes regarding board gender diversity has made in corporate governance code of conducts in Pakistan. It has open new horizon for the research, like in a coming year future research can be made about the comparison of the corporate governance code of conducts before 2017 and after 2017. Women empowerment always been a social issue for the society as well and this research compresence this issue in the light of corporate governance and earnings management.

CONCLUSION

The core objective of this study is to examine the impact of corporate governance on earnings management in the presence of board gender diversity. The empirical results conjecture that, when board size is diverse through gender diversity it will reduce the earnings management in the firms. Overall strong board gender diversity in corporate governance significantly reduces the earnings management in the sugar sector of Pakistan listed companies on PSX 1oo index. In short results of the study are supporting the theoretical framework of the study. The findings suggest that regulators and policymakers should reconsider their policies and reforms to increase board gender diversity by increasing the number of female directors, including at least one woman, and the proportion of independent female directors on boards in Pakistan.

Thus, managers, practitioners, and investors should evaluate individual elements of successful board characteristics in order to enhance corporate governance practices. Additionally, the findings imply that increasing the size of the board may be a good deterrent to EM. Investors, regulators, and practitioners should bear in mind that increasing the number of the board of directors enhances the quality of financial reporting. Furthermore, female director accounting knowledge will ensure the quality of financial reporting and ensuring the strong corporate governance practices made in Pakistan firms. This study has some limitations; one is only board gender diversity is not sole responsible for altering the relationship between corporate governance and earnings management. Female directors' others attribute like education, experience and culture must consider. Second limitation is selection of only one sector in PSX 100 index; however future research can be made by incorporated other sectors to explore the in-depth facts. The last limitation is to make only moderated regression analysis, if in future moderated- mediated regression will apply by incorporated other governance code of conduct, it will better explore the facet of PSX 100 index listed companies.

RESEARCH LIMITATIONS

The findings of the study are subject to several limitations. First, one is sector wise, undertaking only sugar sector. The second fold is uni-country analysis like Pakistan. For future research it is recommended that other than sugar sectors must incorporate thus for research can unfold this relationship in other sectors. Secondly, gender is only one aspect of board gender diversity. Thus, it would be relevant to analyze the effects of other characteristics and tendencies related to gender diversity such as education, experience, age, culture and tokenism in examining the relationship between board gender diversity and EM. Thirdly, only abnormal accruals are used to measure EM. Therefore, future studies should use other measures of earnings quality such as earnings persistence, earnings predictability and conservatism. Lastly, it must incorporate cross country analysis to learn what the practices of corporate governance in other countries are conducted and how board gender diversity moderates the relationship between corporate governance and earnings management.

ETHICAL STATEMENT

The Xian University of Technology's Ethical Committee in Xian, Shaanxi, China gave its approval to this work. We carried out this study in conformity with the ethical standards for educational research set by Xian University of Technology.

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Institutional Review Board Statement:

Since participant agreement was obtained before they answered the survey and they did not belong to any vulnerable groups, this study did not need ethical approval.

Informed Consent Statement:

All participants in the study provided their informed permission.

Data Availability Statement:

The corresponding author will provide the datasets used and/or analyzed during the current work upon reasonable request.

Conflicts of Interest:

The authors declare that they have no competing interests.

REFERENCES

Aiken, L. S., West, S. G., & Reno, R. R. (1991). Multiple regression: Testing and interpreting interactions: sage.

Akbar, A. (2014). Corporate governance and firm performance: Evidence from textile sector of Pakistan. Journal of Asian business strategy , 4 (12), 200-207.

Akbar, A. (2015). The role of corporate governance mechanism in optimizing firm performance: A conceptual model for corporate sector of Pakistan. Journal of Asian Business Strategy , 5 (6), 109-115.

Al-Fayoumi, N., Abuzayed, B., & Alexander, D. (2010). Ownership structure and earnings management in emerging markets: The case of Jordan. International Research Journal of Finance and Economics, 38(1), 28-47.

Ali, A., Iqbal, S., Haider, S. A., Tehseen, S., Anwar, B., Sohail, M., & Rehman, K. (2021). Does governance in information technology matter when it comes to organizational performance in Pakistani public sector organizations? Mediating effect of innovation. SAGE Open, 11(2), 21582440211016557.

Amin, A., Ali, R., Rehman, R. U., Naseem, M. A., & Ahmad, M. I. (2022). Female presence in corporate governance, firm performance, and the moderating role of family ownership. Economic Research-Ekonomska Istraživanja, 35(1), 929-948.

Anvari, R., Mohammadi, M., Kahoo, A. R., Khan, N. A., & Abdullah, A. I. (2020). Random noise attenuation of 2D seismic data based on sparse low-rank estimation of the seismic signal. Computers & Geosciences, 135, 104376.

Ararat, M., Claessens, S., & Yurtoglu, B. B. (2020). Corporate governance in emerging markets: A selective review and an agenda for future research. Emerging Markets Review, 100767.

Armuña, C., Ramos, S., Juan, J., Feijóo, C., & Arenal, A. (2020). From stand-up to start-up: exploring entrepreneurship competences and STEM women's intention. International Entrepreneurship and Management Journal, 16(1), 69-92.

Bajra, U., & Čadež, S. (2018). Audit committees and financial reporting quality: The 8th EU Company Law Directive perspective. Economic Systems, 42(1), 151-163.

Bajra, U., & Cadez, S. (2018). The impact of corporate governance quality on earnings management: Evidence from European companies cross-listed in the US. Australian accounting review, 28(2), 152-166.

Bajra, U., & Čadež, S. (2020). Alternative regulatory policies, compliance and corporate governance quality. Baltic Journal of Management.

Becker, C. L., DeFond, M. L., Jiambalvo, J., & Subramanyam, K. (1998). The effect of audit quality on earnings management. Contemporary accounting research, 15(1), 1-24.

Bergstresser, D., & Philippon, T. (2006). CEO incentives and earnings management. Journal of financial Economics, 80(3), 511-529.

Brown, S., Martynov, S., Mahgerefteh, H., Fairweather, M., Woolley, R. M., Wareing, C. J., . . . Zhang, Y. C. (2014). CO2QUEST: Techno-economic assessment of CO2 quality effect on its storage and transport. Energy Procedia, 63, 2622-2629.

Chen, E., & Gavious, I. (2016). Unrealized earnings, dividends and reporting aggressiveness: an examination of firms' behavior in the era of fair value accounting. Accounting & Finance, 56(1), 217-250.

Cheng, S. (2008). Board size and the variability of corporate performance. Journal of financial economics, 87(1), 157-176.

Cornett, M. M., Marcus, A. J., & Tehranian, H. (2008). Corporate governance and pay-for-performance: The impact of earnings management. Journal of financial economics, 87(2), 357-373.

Cornett, M. M., McNutt, J. J., & Tehranian, H. (2009). Corporate governance and earnings management at large US bank holding companies. Journal of corporate finance, 15(4), 412-430.

Cumming, D., Leung, T. Y., & Rui, O. (2015). Gender diversity and securities fraud. Academy of management journal, 58(5), 1572-1593.

Damak, S. T. (2018). Gender diverse board and earnings management: evidence from French listed companies. Sustainability Accounting, Management and Policy Journal.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. Accounting review, 193-225.

DeFond, M. L., & Jiambalvo, J. (1994). Debt covenant violation and manipulation of accruals. Journal of accounting and economics, 17(1-2), 145-176.

Di Meo, F., Lara, J. M. G., & Surroca, J. A. (2017). Managerial entrenchment and earnings management. Journal of Accounting and Public Policy, 36(5), 399-414.

Duru, A., Iyengar, R. J., & Zampelli, E. M. (2016). The dynamic relationship between CEO duality and firm performance: The moderating role of board independence. Journal of Business Research, 69(10), 4269-4277.

Fama, E. F., & Jensen, M. C. (1983a). Agency problems and residual claims. The Journal of law and economics, 26(2), 327-349.

Fama, E. F., & Jensen, M. C. (1983b). Separation of ownership and control. The Journal of law and economics, 26(2), 301-325.

Fatma, H. B., & Chouaibi, J. (2021). Corporate governance and CSR disclosure: evidence from European financial institutions. International Journal of Disclosure and Governance, 1-16.

Fondas, N., & Sassalos, S. (2000). A different voice in the boardroom: How the presence of women directors affects board influence over management. Global focus, 12(2), 13-22.

Freeman, R. E. (2010). Strategic management: A stakeholder approach: Cambridge university press.

Fuzi, S. F. S., Halim, S. A. A., & Julizaerma, M. (2016). Board independence and firm performance. Procedia Economics and Finance, 37, 460-465.

Gabrielsen, G., Gramlich, J. D., & Plenborg, T. (2002). Managerial ownership, information content of earnings, and discretionary accruals in a non–US setting. Journal of Business Finance & Accounting, 29(7-8), 967-988.

Garcia-Sanchez, I.-M., Martínez-Ferrero, J., & García-Meca, E. (2017). Gender diversity, financial expertise and its effects on accounting quality. Management Decision.

Ghoshroy, A., Adams, W., Zhang, X., & Güney, D. Ö. (2017). Active plasmon injection scheme for subdiffraction imaging with imperfect negative index flat lens. JOSA B, 34(7), 1478-1488.

Ginesti, G., Drago, C., Macchioni, R., & Sannino, G. (2018). Female board participation and annual report readability in firms with boardroom connections. Gender in Management: An International Journal.

Guillet, B. D., Seo, K., Kucukusta, D., & Lee, S. (2013). CEO duality and firm performance in the US restaurant industry: Moderating role of restaurant type. International Journal of Hospitality Management, 33, 339-346.

Gullett, N. S., Kilgore, R. W., & Geddie, M. F. (2018). Use of financial ratios to measure the quality of earnings. Academy of Accounting and Financial Studies Journal, 22(2), 1-12.

Haider, S. A., & Tehseen, S. (2022). Role of decision intelligence in strategic business planning. In Decision Intelligence Analytics and the Implementation of Strategic Business Management (pp. 125-133). Springer, Cham.

Harakeh, M., El-Gammal, W., & Matar, G. (2019). Female directors, earnings management, and CEO incentive compensation: UK evidence. Research in International Business and Finance, 50, 153-170.

Hillman, A. J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. Academy of management review, 28(3), 383-396.

Hossain, S. M., Akbar, A., Tehseen, S., Poulova, P., Haider, S. A., Sheraz, F., & Yasmin, F. (2021). Evaluation of entrepreneurs success: a special reference to women entrepreneurs in Bangladesh. Academy of Entrepreneurship Journal, 27, 1-13.

Hussain, A., Akbar, M., Kaleem Khan, M., Akbar, A., Panait, M., & Catalin Voica, M. (2020). When does earnings management matter? Evidence across the corporate life cycle for non -financial Chinese listed companies. Journal of Risk and Financial Management , 13 (12), 313.

Isenmila, D. M. (2012). The role of capital market in emerging economy. International Journal of Business and Social Research, 2(6), 61-71.

Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. The American economic review, 76(2), 323-329.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. The journal of finance, 48(3), 831-880.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of financial economics, 3(4), 305-360.

Khalil, M., & Ozkan, A. (2016). Board independence, audit quality and earnings management: Evidence from Egypt. Journal of Emerging Market Finance, 15(1), 84-118.

Kiel, G. C., & Nicholson, G. J. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. Corporate Governance: An International Review, 11(3), 189-205.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. Journal of accounting and economics, 33(3), 375-400.

Krishnan, G. V., & Parsons, L. M. (2008). Getting to the bottom line: An exploration of gender and earnings quality. Journal of Business Ethics, 78(1), 65-76.

Kunst, V., & Beugelsdijk, S. (2018). Managerial Ownership and Firm Performance: The Cultural Boundaries of Agency Theory. Paper presented at the Academy of Management Proceedings.

Lee, M. T., & Suh, I. (2022). Understanding the effects of Environment, Social, and Governance conduct on financial performance: Arguments for a process and integrated modelling approach. Sustainable Technology and Entrepreneurship, 1(1), 100004.

Li, N., & Wahid, A. S. (2018). Director tenure diversity and board monitoring effectiveness. Contemporary Accounting Research, 35(3), 1363-1394.

Lian, G., Xu, A., & Zhu, Y. (2022). Substantive green innovation or symbolic green innovation? The impact of ER on enterprise green innovation based on the dual moderating effects. Journal of Innovation & Knowledge, 7(3), 100203.

Mahmood, M., & Orazalin, N. (2017). Green governance and sustainability reporting in Kazakhstan's oil, gas, and mining sector: Evidence from a former USSR emerging economy. Journal of Cleaner Production, 164, 389-397.

Mardjono, E. S., & Chen, Y.-S. (2020). Earning management and the effect characteristics of audit committee, independent commissioners: Evidence from Indonesia. International Journal of Business and Society, 21(2), 569-587.

Marnet, O. (2008). Behaviour and rationality in corporate governance: Routledge.

Marra, A. (2021). All that glitters is not gold! Independent directors' attributes and earnings quality: Beyond formal independence.

Mohammad, W. M. W., Wasiuzzaman, S., & Salleh, N. M. Z. N. (2016). Board and audit committee effectiveness, ethnic diversification and earnings management: a study of the Malaysian manufacturing sector. Corporate Governance.

Morck, R., Shleifer, A., & Vishny, R. W. (1988). Management ownership and market valuation: An empirical analysis. Journal of financial economics, 20, 293-315.

Nelson, S. P., & Devi, S. (2013). Audit committee experts and earnings quality. Corporate Governance: The international journal of business in society.

Nguyen, T. T. M., Evans, E., & Lu, M. (2017). Independent directors, ownership concentration and firm performance in listed companies: evidence from Vietnam. Pacific Accounting Review.

Orazalin, N. (2019a). Board gender diversity, corporate governance, and earnings management. Gender in Management: An International Journal.

Orazalin, N. (2019b). Board gender diversity, corporate governance, and earnings management: Evidence from an emerging market. Gender in Management: An International Journal.

Pathan, S., & Faff, R. (2013). Does board structure in banks really affect their performance? Journal of Banking & Finance, 37(5), 1573-1589.

Ran, Z., Gul, A., Akbar, A., Haider, S. A., Zeeshan, A., & Akbar, M. (2021). Role of gender-based emotional intelligence in corporate financial decision-making. Psychology research and behavior management, 14, 2231.

Rasheed, F., & Safdar, S. (2018). Corporate Governance and Firm Performance: The Case of Sugar Sector of Pakistan. Journal of Research in Administrative Sciences (ISSN: 2664-2433), 7(2), 32-34.

Stedham, Y., Yamamura, J. H., & Beekun, R. I. (2007). Gender differences in business ethics: Justice and relativist perspectives. Business Ethics: A European Review, 16(2), 163-174.

Subramanyam, K. (1996). The pricing of discretionary accruals. Journal of accounting and economics, 22(1-3), 249-281.

Sun, J., Liu, G., & Lan, G. (2011). Does female directorship on independent audit committees constrain earnings management? Journal of Business Ethics, 99(3), 369-382.

Suyono, E., & Al Farooque, O. (2018). Do governance mechanisms deter earnings management and promote corporate social responsibility? Accounting Research Journal.

Thinh, T. Q., & Tan, N. N. (2019). Corporate governance factors impact on the earnings management–evidence on listed companies in Ho Chi Minh stock exchange. Paper presented at the International Econometric Conference of Vietnam.

Türegün, N. (2018). Effects of borrowing costs, firm size, and characteristics of board of directors on earnings management types: a study at Borsa Istanbul. Asia-Pacific Journal of Accounting & Economics, 25(1-2), 42-56.

Usman, M., Zhang, J., Wang, F., Sun, J., & Makki, M. A. M. (2018). Gender diversity in compensation committees and CEO pay: evidence from China. Management Decision.

Wang, K., & Shailer, G. (2015). Ownership concentration and firm performance in emerging markets: A meta-analysis. Journal of Economic Surveys, 29(2), 199-229.

Warfield, T. D., Wild, J. J., & Wild, K. L. (1995). Managerial ownership, accounting choices, and informativeness of earnings. Journal of accounting and economics, 20(1), 61-91.

Yazdanfar, D., & Öhman, P. (2015). Debt financing and firm performance: an empirical study based on Swedish data. The Journal of Risk Finance, 16(1), 102-118.

Zahoor, S., Yang, S., Ren, X., & Haider, S. A. (2022). Corporate governance and humble leadership as antecedents of corporate financial performance: monetary incentive as a moderator. Frontiers in Psychology, 13.

Zalata, A. M., Tauringana, V., & Tingbani, I. (2018). Audit committee financial expertise, gender, and earnings management: Does gender of the financial expert matter? International Review of Financial Analysis, 55, 170-183.