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Analysis of Earnings Management as a Mediator in Corporate Governance and Firm Performance

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Abstract: In this research, we discussed the financial sectors, industrial, and service sectors in Jordan from 2013 to 2021 to determine how earnings management affects the influence of corporate governance mechanisms on firm performance. Research analysis integrated corporate governance mechanisms linked to board structure, ownership structure, and the audit committee. According to the Modified Jones Model, the degree of discretionary accruals was employed as a proxy for earnings management. To determine the mediating role of earnings management, we used the framework developed by Preacher and Hayes. The study found that an independent audit committee was negatively correlated with firm performance. Return on Assets, Return on Equity, and Tobin's Q were all found to be negatively correlated with board independence. There is a statistically significant positive association between business performance and the remaining constructions (board size, CEO duality, audit committee size, audit committee ownership, and ownership structure). In addition, there was a strong link between earnings management and corporate governance mechanisms.

Keywords: Corporate Governance Mechanisms; Earnings Management, Financial Sector, Firm Performance, Industrial Sector, Services Sector.

1 Introduction

The relevance of corporate governance mechanisms in firm management and the preservation of shareholders' and other parties' rights has expanded, both in the public and private sectors of business. Improvements in departmental performance through corporate governance structures have been the subject of a number of recent academic themes [1]. Furthermore, the importance of corporate governance mechanisms in the private sector, particularly in the industrial and commercial sectors and the banking sector in particular, is parallel to the impact of the effective implementation of corporate governance mechanisms in the public sector on the national economy [2]. In the meantime, corporate finance experts have known for some time that the common practice of keeping ownership and management functions separate in businesses can lead to an expensive agency problem [3].

Managers are given considerable leeway to maximize their own wealth at the expense of shareholders since shareholders have few incentives to keep an eye on how their money is being spent [4]. As a result, managers and their shareholders may not always have the same goals, which can result in suboptimal management decisions due to the tension between the two sets of stakeholders' interests [5]. Therefore, timely investments by the stakeholders can be encouraged by presenting an accurate and efficient financial report in various countries throughout the world [6]. Before making investment decisions, however, capital market participants need to become accustomed to the scale of the audited annual report's consistency in excellent financial reporting [7].

On the other hand, financial reports' primary objective is to furnish proof to the firm's stakeholders and possible investors about the firm's financial performance and provide a chance to evaluate the firm's financial health in light of future business requirements [8]. Given the growing interconnectedness of business associations and the availability of shares on the capital market, the need for reliable and fast financial data has become fundamental [9]. Organizations can reduce the impact of the agency problem by implementing a system of corporate governance processes that effectively monitors and holds executives accountable [10].

Therefore, businesses should put into place a corporate governance structure to prevent earnings management from engaging in such opportunistic actions. Many nations have started research projects to develop new policies that represent more desirable forms of government. Earning is the single most important indicator of a company's viability and strength. Managers engage in earnings management when they employ a variety of strategies and tactics, some of which are legal while others are not, in order to meet predetermined financial targets. Real earnings management and accrual earnings management are two subcategories of earnings management. For that reason, this matter is crucial because it contributes to a sizable number of Jordanian enterprises being tagged with a going-concern qualification in their audit report. This has

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implications for both the management of the company's earnings and the accuracy of the information disclosed by the company's books. Timely investments can be prompted by the timely presentation of a trustworthy and efficient financial report in many nations. In recent years, however, Jordanian businesses have struggled. According to a report on the country's corporate governance by the European Bank for Reconstruction and Development, Jordanian enterprises' governance remains relatively unstable. Companies in Jordan are still working toward complete compliance with the corporate governance rules. 45 of Jordan's 180 businesses are in violation of the law (ASE, 2018). According to [11], Jordan's non-financial sector had a drop in GDP. Uncertainty in financial information is created for Jordanian shareholders due to earnings management in the stock market. Public companies in Jordan manipulate earnings through a combination of real-world activities and accrual-based strategies. As a result, the success of the company's metrics is tied into earnings management. Earnings manipulation in Jordanian businesses has been confirmed by multiple empirical research. To their credit, [12] analyzed the real and accrual-based earnings management processes of 39 countries and found that Jordan is among the most prosperous in real earnings management. Research into corporate governance methods, earnings management, and firm performance is scant in Jordan. In this analysis, we have zeroed in on what makes a difference for Jordanian businesses in the financial, industrial, and services sectors.

2 Literature Review

2.1. Firm's Performance

In this context, "performance" refers to a means of evaluating the efficacy and productivity of an endeavor. According to [13], "performance" refers to the process by which the chaotic actuality of a performance is transformed into structured symbols that may be recounted and conveyed under similar conditions. Performance can be thought of as a framework and measured in several ways based on the variety of performance variables. The difficulty in providing a clear definition is reflected in the fact that performance is a critically important measure of an organization's success [11]. The relationship between resources and financial performance is mediated by financial performance. Consumer happiness (considering the customer a stakeholder) is an obvious result and an important indicator of business success. Organizational efficiency has many subsets, one of which is financial performance, which includes both operational and financial outcomes. Furthermore, the literature's central idea of a firm's performance suggests that its value provides the basis for its performance. Improved corporate governance can increase a company's value by reducing the risk of cash flow theft by internal stakeholders. The authors of [14] state that "financial performance" is an important metric employed in empirical studies of corporate governance. According to [15] research, corporate governance impacts business value by reducing confiscation by internals who anticipate cash flow may be given to investors. The key aspects that affect the firm's performance are the procedures of corporate governance. These metrics are increasingly vital for boosting an institution's performance as they reveal the extent to which internal factors play a role in shaping output. Customers may gain insight into a business's performance if it makes its financial data available to them. A company can evaluate its success across situations by using these metrics [14]. Therefore, it is increasingly crucial for a company's efficient management to track performance [16]. Only if a company does well and backs its management can they make all these disclosures and make them well [17]. Test of fluctuation in the international oil prices on the profitability of the transport sector [18]. The role of Dividends on Investment of the Quality of Financial Reports [19]. The Extent of companies to apply Corporate Governance (CG) principles [20].

2.2. Corporate Governance Mechanisms

The processes of corporate governance include the organizational structure of large firms and the methods by which they run their operations to meet their long-term goals. Traditionally, their priority has been to increase the company's stock price. The governance exemplifies the guiding concepts and regulations, and it allocates responsibilities and authority to the many stakeholders in a company [16]. Thus, the present research employed three distinct corporate governance mechanisms: the board structure, the ownership structure, and the audit committee. These watchdogs keep tabs on the company's actions and growth, and they intervene if and when the business starts to go off course. They safeguard the company's overall internal control structure in the name of the company's employees, management, and shareholders. Top concerns are efficient operations, well-defined reporting structures, and performance evaluation mechanisms [21]. In addition, boards of directors and their committees are crucial components of corporate governance since they oversee and provide guidance to management as it carries out its duty to safeguard shareholders' interests [3]. Good corporate governance systems also provide a fresh window for academics and government watchdogs to learn about the connection between corporate governance and firm performance and the constraints it places on managers' discretion [10]. The next subsections will, therefore, provide a more in-depth explanation of each category.

2.3. Board Structure

The last 30 years' worth of research in the field of management has shown the significant role that boards of directors play in modern businesses. The constant change in the board's legal responsibilities and public expectations makes it difficult to conceptualize what boards do [22]. One area where this is very clear is in the management field, where different disciplines have vastly varied conceptions of what boards are for. According to research conducted by [23], the board's three primary functions are service (which might include facilitating access to resources), strategy, and control. The board's role in strategic decision making and access to resources was conceptualized by [24]. [25,26] , among others, found different recurring themes in the literature on boards and top-level management. The job of the board of directors in control is to oversee management and safeguard shareholder interests [27]. The directors' fiduciary duties necessitate this action. Boards' implementation of the control mechanism is not cut-and-dry. Strategic and financial control systems have been categorized separately from operational and strategic control systems. Board members' strategic participation can range from "approving, monitoring, and reviewing strategy at one end, to a leadership role of active involvement in formulating goals, values, and determining direction at the other end of the continuum" [28]. However, research overwhelmingly confirms that the board's primary responsibility is to get funding for the business. The idea is that boards of directors may help businesses exert more influence over their external environments and protect their most vital assets [29]. Thus, the present research utilized CEO duality, board independence, and board size.

2.4. Audit Committee

The United States Securities and Exchange Commission (SEC) made the initial recommendation for the establishment of audit committees in publicly traded businesses in 1972 [30]. The audit committee's duties and jurisdiction were expanded by the [12]. Corporate governance mechanisms are highly connected with the audit committee's make-up, competence, independence, and knowledge [31]. According to a former chairman of the SEC, the creation of an audit committee may be the single most significant change to corporate structure and oversight of financial reporting. The audit committee must keep an eye on the company's adherence to accounting standards. Recent corporate governance regulations and professional pronouncements have highlighted the significance of this governance mechanism [32].

2.5. Ownership Structure

Scholars and researchers have taken an interest in the ownership structure because it is one of the fundamental instruments of corporate governance. The contemporary firm was the subject of a seminal study by [33]. There was some discussion of potential conflicts of interest between controllers and managers, and they came to the conclusion that, as ownership has become more widely dispersed, shareholders' ability to exert control over management has been diminished. [34], the owner is always determined endogenously to maximize the firm's performance, which is to everyone's benefit. There are two key differences between privately held and publicly traded companies in terms of ownership. If there are only a few very significant shareholders (a highly concentrated ownership structure), then the firm's ownership concentration is low (diffused). Ownership "identity" denotes the entity type of the business's owners, be they sole proprietors, partnerships, corporations, or other businesses. The thesis put forth by [35], suggests that a negative correlation exists between the spread of ownership and the success of a business. Ownership types such as management, family, government, and block holders were therefore utilized in this analysis.

2.6. Earnings Management

Managers can manipulate reported results by a combination of accounting and real economic actions, as has long been acknowledged in the literature [36]. But most of the academic studies concentrate on accrual-based earnings management rather than real activity-based earnings management [37]. This part seeks to establish a clear explanation for real earnings management, as that is what this study is examining, and it is based on real activities. Management may attempt to impact market value by artificially inflating or deflating earnings, which investors use to evaluate financial reports. Market performance is the yardstick by which the value of a company is determined (FV). Included are both preferred and ordinary creditors and investors. From 2007-2015, [38], analysed (239) Italian manufacturing listed companies and concluded that EM had a significant negative impact on the market valuation of non-financial corporations but no impact in the case of family firms. Those organizations that put more focus on earnings management than others have less value relevance, as stated by [39]. Earnings management, as suggested by [40], raises company value, which is positively connected with business size and leverage.

2.7. Resource Dependency Theory

Associations, according to the Resource Dependency Theory, require resources to maintain their existence. It is also said that they are in a position to acquire these resources due to their situation, and that there are other organizations which require similar resources in this setting [41]. Resource concentration, resource accessibility precocity, and resource interconnection are the three components that make up the totality of resource dependence [8]. Perspectives from the resource dependency theory and the exchange cost theory have been applied to the resource dependency parameters of business alliances. One of the components of power and authority present everywhere on Earth where groups are structured is dependence on available resources [42]. Resource interconnectivity refers to the quantity and type of links or affiliations between the organizations, while resource accessibility refers to the availability of these resources.

2.8. Agency Theory

Agency theory is applied to comprehend how agents and principals interact with one another. In a business deal, the agent stands in for the principal. Principals and agents may find themselves at odds due to competing priorities, since some agents may not behave in the best interests of their principals. In light of this, it is imperative for businesses to implement policies that reduce the likelihood of such occurrences. When a principal hires an agent to act on the principle's behalf, the principal must do so despite having no direct knowledge of how well the agent would carry out the assignment [43]. Incentives for agents to cooperate with the principal's goals are essential. To ensure that these incentives are designed effectively, we can turn to agency theory. Therefore, laws discouraging moral hazard should be implemented and incentives that favor the improper action should be removed. Based on agency theory, supervisors have two options for addressing the problems that arise from having an agent act as a trailblazer without adequate oversight. The initial stage is to set up a management structure that can check and rate the agent's actual conduct [44]. Examples of what this framework entails are the use of detailed methods, a larger administrative staff, and a board of directors [45]. The second step is to establish a system of authority in which the agreement is contingent upon the actual outcomes of the agent's actions [46]. It was argued that shareholders and corporations engaging in capital market operations could be put in a difficult position due to agency theory. It was possible for shareholders to have input into the company's employment of innovative accounting procedures, in addition to maximizing earnings through business transaction activities [47]. The board structure, the audit committee, and the ownership structure are the best corporate governance instruments for supervising the firm's management on investors' behalf. To act in a way that reflects the owners' wishes and prioritizes their interests is the goal.

3 Hypothesis Development and Empirical Literature Review

3.1. Corporate Governance Mechanism and Firm’s Performance

Board size is indicative of the board's capacity to withstand management's attempts to exert authority [46]. According to the agency theory, a board with more members is in a better position to oversee the company's administration. Independent directors are elected by the shareholders to act on their behalf and thereby mitigate agency issues. [48], found evidence supporting Agency Theory, in the form of a positive correlation between the presence of outside directors and operational performance. Since managers' ownership increases, the interests of shareholders and managers are said to converge in the agency model proposed by [49]. Higher levels of executive ownership are expected to lower agency costs and boost the company's bottom line. Alternatively, [50], suggested that a high concentration of insider ownership can have a negative impact on a company's success. The agency theory provides rationale for the belief that family control of businesses is associated with a decline in board independence and corporate accountability. When a business is owned by a single family, there is both a financial incentive and a moral imperative to run it in the best interests of its shareholders. Numerous studies have found that family-run enterprises tend to outperform their non-family counterparts. If the board has any subcommittees, the audit committee is the most crucial one. The effectiveness of a company can be heavily influenced by the size of its audit committee. For audit committees to accomplish their tasks properly, they need a sufficient number of members. Fewer people on an audit committee might lead to less productivity and involvement.

3.2. Firm performance is significantly linked with the presence of effective corporate governance mechanisms.

3.2.1. Corporate Governance Mechanism and Earning Management

The agency claims that when there are more people on board, more eyes can be kept on management decisions and the board can be more aggressive about addressing problems. According to the agency theory, boards with more members are better able to perform their oversight duties because the CEO has less power within the board. [51], conducted research into the relationship between board size and earnings management. A smaller number of directors are able to exert more influence because the larger board makes it difficult for them to effectively communicate and work together. According to the agency theory, which was explored by [52], the number of independent board members has a significant impact on board independence. Independent board members have been linked to more effective oversight in numerous academic researches. The relationship between a board's independence and its ability to oversee financial matters was investigated by [53]. That non-executive director has no defense against earnings management was made clear by the decision. The Chief Executive Officer (CEO) also serves as the Board of Director's Chairman due to the board's structure. There may be effective earnings management that improves the earnings' informativeness in conveying value-relevant information as the managerial ownership structure grows. Taking into account the convergence-of-interest hypothesis, insider ownership can be seen as a mechanism to limit managers' ability to act opportunistically. According to the alignment hypothesis, one way those firms make their boards of directors more dedicated to and in sync with shareholder interests is through the usage of stock ownership [49]. Since the costs of monitoring are reduced for privately held businesses, these businesses should be more efficient than publicly traded ones. There have been conflicting conclusions drawn from the many research that have examined the connection between state ownership and earnings management. The resource dependency theory posits that state-owned businesses benefit from preferential treatment due to their ownership structure. Government-owned businesses, on the other hand, are expected to meet political and social goals like job creation and tax revenue targets because of the agency principle. One factor that could affect how much information is included in interim reports is the composition of the audit committee. In 1992, the Cadbury Committee and in 2003, the Smith Committee both suggested that the audit committee have at least three members who were not executive officers. This is because, as explained by [54], a more robust audit committee is better equipped to identify and address issues with the accuracy of financial reports. Audit committees need sufficient manpower to carry out their mandate of controlling and monitoring manager actions [55,56]. Managers' stockholdings, according to the agency's theory, bring their interests closer to those of shareholders. If members of the audit committee have a large number of shares, that could lead to better oversight of the financial reporting process. [57], conducted their own research and found that an impartial audit committee can reduce the prevalence of earnings management. It's possible for members of the audit committee to work in concert with management to safeguard their personal holdings. The audit committee's ability to provide objective oversight of the financial reporting process may be compromised by widespread ownership of the company's stock. Directors' block shareholdings, according to [48], can improve the efficiency of monitoring real earnings management. Based on the agency theory and the theory of resource dependence, the aforementioned talks, and prior research that has supported the important relationship between corporate governance procedures and earning management, the current study produced the following hypotheses:

Earnings management is strongly influenced by corporate governance mechanisms

Earnings Management as a Mediator

The purpose of corporate governance is to mitigate the principal agent problem by establishing the manager's accountability. When it comes to protecting shareholder interests, the corporate governance system succeeds or fails based on how it regulates and oversees businesses and their leadership. Meanwhile, earnings management primarily impacts company performance and, by extension, can jeopardize shareholder resources. However, if corporate governance is effective, managers' ability to make arbitrary accounting decisions and investments may be limited. On the other hand, if revitalized corporate governance does not limit managers' ability to make real operational decisions or investments, the firm's performance may suffer due to the managers' own personal agendas [58]. Managers engaging in "earnings management," as defined by [59], mislead stakeholders about the firm's underlying performance by exercising discretion in financial reporting. Accounting performance can be improved through real earnings management, as has been demonstrated in the literature. Managers are encouraged to engage in earnings management and address agency issues since doing so will increase their own compensation, as proposed by the agency theory. Increasing actual earnings management, according to [37], is expensive and immediately reduces the firm's worth. Research by [56], shows that trying to boost performance by manipulating sales now can have negative repercussions for the company's future success. According to research by [60], and [37], manipulating current operations has little to no effect on a company's future success. Past research suggests that corporate governance governs managers' use of an accrual accounting method to manage earnings, which in turn may impact the company's bottom line. However, research into the link between corporate governance and firm success is still lacking. Managers' use of real activity-based earnings management is associated with poorer business performance, as stated by [60]. In light of this, the current study sought to establish a connection between corporate governance, real earnings management, and the performance of firms trading on the Amman Stock Exchange Market. In addition, prior research has shown that the link between corporate governance methods and business performance is mediated by real earnings management [61]. For that reason, the following conjecture was formed over the course of this investigation:

Real earnings management acts as a moderator between corporate governance mechanisms and firm performance.

Research Framework

Figure 1 shows the mediation model created by [62], which we use to evaluate our conceptual framework. A show an example of a direct effect. Firm performance is impacted by corporate governance practices and in B, we see an example of a mediation pattern. Earnings management is one way in which corporate governance has an indirect effect on firm performance.

Criteria for Evaluating Mediation Procedures

Total effect of X on Y is a common way to talk about the connection between X (CG) and Y (Firm performance) in the mediation model presented by [62]. (see A). To differentiate between "", the direct effect of X on Y after controlling for Earnings Management, and the total effect, "c" is used (see B). If both I X significantly predicts (i.e., $c\neq0$ in Figure 1) and X significantly predicts (i.e., $a\neq0$ in Figure 1) Y while controlling for (i.e., c1) M, then (ii) VEM is a mediator between I X and To summarize, when X is eliminated (shown as $b\neq0$ in Figure 1), M becomes a strong predictor of Y. Perfect mediation, as defined by [63], happens when the effects of after control of the mediator are negligible. While there may be no evidence for a substantial total effect, it is conceivable to determine that an indirect influence is significant. Since the entire process constitutes the mediation's preconditions, its overall effect is the yardstick by which to evaluate whether or not the effect itself represents mediation. We next regress the indirect impact and conduct tests for the X by M interaction and pairwise contrasts in the third step.

4 Methodology

4.1. Data

Amman Stock Exchange-listed firms constitute the sample for this analysis (ASE). Amman Stock Exchange (ASE) as an annual reporter from listed businesses provided the secondary data used in this analysis. At the end of 2017, Jordanian businesses were broken down into three broad categories: the financial sector, manufacturing, and services (ASE, 2018). All companies registered on the Amman Stock Exchange between 2009 and 2022 were included in the study, with the exception of the banking sector, which had 15 representatives. Therefore, the present research made use of corporate governance aspects derived from both the existing condition of the data and the Jordanian corporate governance code. The banking industry was left out of the study's sample because it is subject to a different set of rules and guidelines published by the Central Bank of Jordan. Furthermore, these rules diverge from those of comparable industries. Using a convenience sampling method, we were able to collect data from 180 businesses (about 92% of the total). Our data was collected from 2013 to 2022 using data found on company websites.

4.2. Method of Data Collection

The majority of the data for this study came from publicly available sources, such as the annual reports of Jordanian companies trading on the Amman Stock Exchange, and thus represents secondary data on corporate governance processes. The earnings management and company performance numbers were culled from the [63]. The database was mined for information on the selected organizations, including financial data from the income statement, cash flow, and balance sheet. As a result, many researchers and problem solvers are turning to secondary data sources because of the time and money savings they give [64].

4.3. Measurement of Variables

Table 1: Measurement of Variables

Variables	Proxy and Abbreviation	Measures
Firm Performance	Tobin's Q	$\left(\frac{\text{Market value of all outstanding stock} + \text{Market value of all debt}}{\text{Replecement value of all production capacity}}\right)$
	Return on Asset (ROA)	is calculated by comparing available net profit for common shareholders to total assets.
	Return on Equity (ROE)	$\left(\frac{\text{Net Income After Tax}}{\text{Total Equity}}\right)$
Baord Structure	Board Size (BZ)	In this analysis, "board size" means the number of directors listed on the Auditor's Statement of Financial Condition.
	Board Independence (BI)	The percentage of independent, non-executive directors on the board is all that's meant by "Board Independence."
	CEO Duality	When the functions of both the chief executive officer and the chairperson are combined, a "dual CEO" exists. That's the case when one and the same person holds the positions of CEO and Chairman. (This equals 1 if the role of the chairperson and CEO is combined, and is 0 otherwise).
Ownership Structur	Government Ownership (GO)	For the purpose of determining the government's shareholding, the ratio of the number of shares owned by the government to the total number of shares in the company is used.
	Family Ownership (FO)	The percentage of family ownership in a company is determined by comparing the number of shares held by families to the total number of shares in the company.
	Managerial Ownership (MO)	Managerial ownership refers to the amount of stock held by the board of directors. Managerial ownership is determined by dividing the number of shares owned by directors by the total number of outstanding shares in the company.
Audit	Audit Committee	Audit committee's independence measured as a dummy variable. It

Committee	Independence (AI)	equals 1 if all members in the audit committee are independent non-executive, and it is 0 otherwise
	Audit Committee Size (AZ)	Audit committee's size in this study refers to the total number of audit committee members
	Audit Committee Ownership (ACO)	Audit committee ownership refers to the percentage of the ownership of the audit committee members to the total number of shares outstanding of the company

4.4. Earnings management

The Jones model is used to determine how to best manage a company's earnings. The model employs a two-stage procedure to divide total accruals into discretionary and nondiscretionary categories. Earnings before interest and tax minus operating cash flow (Eq. 1) are used to calculate total accruals. Next, the Jones model is applied to the regression equation to estimate non-discretionary accruals (which is shown in Eq. 1. The vast majority of research employs a two-stage method to evaluate earning management. Here, we apply a modified version of the Jones model, which is described in detail below.

$$\frac{TACC_{it}}{TA_{it-1}} = \rho_1\left(\frac{1}{TA_{it-1}}\right) + \rho_2\left[\frac{(\Delta REV_{it})}{TA_{it-1}}\right] + \rho_3\left(\frac{PPE_{it}}{TA_{it-1}}\right) + \varepsilon_{it} \qquad (1)$$

Where, $TACC_{it} = EBIT_{it} - OCF_{it}$

Total accruals ($TACC_{it}$)= earnings before interest and tax minus cash flows from in the firm "i" and time "t", Previous Total assets (TA_{it-1}) = Previous total assets of firm "i" and time "t", Change in revenue (ΔREV_{it}) = change in operating revenues of firm "i" and time "t", Property, plant and equipment (PPE_{it}) = gross property, plant and equipment of firm "i" and time "t".

4.5. Method of Data Analysis

Using the Arellano-Bond Dynamic Panel-Data estimate method, this study examined the connection by means of the Generalized Method of Moment (GMM). Reduce the endogeneity issue impacting corporate governance, earnings management, and business performance with this approach. In addition, the issue of hidden heterogeneity is reduced to a minimum when using the Arellano-Bond Dynamic regression. It has been proposed in previous research that the generalizability of ordinary least square (OLS) regression and Random Effect Fixed Effect regression is questionable. In order to analyse data, the research used the SPSS software.

4.5.1. Econometric Models

The study used the following econometric equation for the analysis

$$FP_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 OS_{it} + \beta_3 AC_{it} + \varepsilon_{it} \qquad (2)$$

$$EM_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 OS_{it} + \beta_3 AC_{it} + \varepsilon_{it} \qquad (3)$$

Preacher and Hayes (2004) proposed mediation equation as:

$$FP_{it} = \beta_0 + \beta_1 EM_{it} + \beta_2 BS_{it} + \beta_3 OS_{it} + \beta_4 AC_{it} + \varepsilon_{it} \qquad (4)$$

Where, β_0 is the constant value and $\beta_1, \beta_2, \beta_3, and\ \beta_4$ are the slopes and ε_{it} is the error term, t represents the time series data and i represents the cross-sectional data. BS_{it} is the board structure, OS_{it} is the ownership structure, AC_{it} is the audit committee size, FP_{it} is the firm performance, EM_{it} is the earning management.

5 Results and Discussion

The summary statistics, including mean, median, maximum, minimum, and standard deviation, are displayed in Table 2. The median ACI score of 0.434 indicates that just 43.5% of audit committee chairs are truly independent, while the remaining 56.5% are executive members. According to BI data, about half of the board members are non-executive members who do not work for the company. According to data compiled by BZ, the average firm has a board of directors consisting of more than ten members, and only 7.6% of boards have a chairman who is also the company's chief executive officer. According to the data, the company's GO makes up around 1.4%, the FO about 1.5%, and the MO about 15%.

Table 2: Descriptive Statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
TQ	0.998953	0.998957	0.999288	0.99809	7.95E-05	-3.37224	37.94
ROE	0.00828	-0.00528	0.083514	-0.14025	0.015416	0.582726	13.24745
ROA	0.00643	-0.01446	0.104405	-0.01808	0.016963	2.249505	9.097345
EM	-0.01471	-0.01677	0.163594	-0.05033	0.022393	4.077131	27.35271
BZ	7.650617	7	23	3	2.333558	1.161471	5.813788
BI	0.477778	0.401248	1	0	0.49966	0.088977	1.007917
CEOD	0.22963	0.19997	1	0	0.420725	1.285658	2.652916
AI	0.434101	0.354103	1	0.281875	0.178302	1.465707	3.882708
AZ	3.061905	3.068321	3.106952	2.98913	0.026745	-1.35125	4.357865
ACO	0.013398	0.009717	0.41913	0.006721	0.014155	17.16294	446.3941
GO	0.014886	0.014445	0.99919	0	0.093233	8.147627	77.2047
FO	0.015148	0.00047	0.79766	0	0.048947	8.031164	89.70166
MO	0.157032	0.08686	1	0	0.19174	1.789974	6.481733

Multicollinearity between the study's variables can be spotted by looking at the correlation matrix, which is displayed in Table 3. Since none of the numbers are greater than 0.8, it can be said with confidence that aumaticollinearity is not a concern.

Table 3: relationship Correlation between variables

Variables	TQ	ROE	ROA	EM	BZ	BI	CEOD	AI	AZ	ACO	GO	FO	MO
TQ	1												
ROE	-0.05917	1											
	0.0172												
ROA	-0.27636	-0.04579	1										
	0.000	0.0654											
EM	-0.25009	0.653726	0.726002	1									
	0.000	0.000	0.000										
BZ	-0.03304	-0.01502	-0.10092	-0.08679	1								
	0.1838	0.5457	0.000	0.0005									
BI	0.068847	0.026668	-0.09808	-0.05594	-0.04057	1							
	0.0056	0.2834	0.0001	0.0243	0.1026								
CEOD	-0.01366	0.012513	-0.00509	0.004757	-0.09816	-0.08736	1						
	0.5826	0.6148	0.8377	0.8483	0.0001	0.0004							
AI	-0.21924	-0.13683	0.960213	0.633189	-0.11617	-0.07814	0.010937	1					
	0.000	0.000	0.000	0.000	0.000	0.0016	0.66						
AZ	-0.09924	-0.03035	-0.64956	-0.51295	0.079852	0.092049	-0.03404	-0.57647	1				
	0.0001	0.2222	0.000	0.000	0.0013	0.0002	0.1709	0.000					
ACO	-0.50279	-0.15227	0.723635	0.443349	-0.0523	-0.07339	0.025522	0.630777	-0.39054	1			
	0.000	0.000	0.000	0.000	0.0353	0.0031	0.3046	0.000	0.000				
GO	0.034841	-0.06119	0.008308	-0.03583	0.005284	0.062228	-0.03477	0.027406	-0.01216	0.004747	1		
	0.161	0.0138	0.7383	0.1494	0.8317	0.0122	0.1619	0.2703	0.6249	0.8486			
FO	0.006187	0.078688	-0.06522	0.004766	-0.0209	0.024022	-0.02658	-0.06455	0.048941	-0.04741	-0.0487	1	
	0.8035	0.0015	0.0086	0.848	0.4005	0.3339	0.2849	0.0094	0.0489	0.0564	0.0498		
MO	-0.15707	0.115422	0.069271	0.131932	0.02112	-0.0468	0.066588	0.015122	-0.01432	0.162543	-0.1270	0.217922	1
	0.000	0.000	0.0053	0.000	0.3956	0.0597	0.0073	0.543	0.5647	0.000	0.000	0.000	

Table 3 shows that the relationship Correlation is a statistical measure that describes the extent to which two or more variables are related to each other. It indicates the strength and direction of a relationship between variables. When variables are correlated, it means that changes in one variable are associated with changes in another—either positively or negatively: Positive correlation: When two variables increase or decrease together, they are positively correlated. Negative correlation: When one variable increase while the other decreases. Correlation coefficients are numerical measures that quantify the strength and direction of this relationship. A correlation matrix is a table that displays the correlation coefficients between multiple variables. Each cell in the matrix represents the correlation between two variables. This matrix is a useful tool for analyzing the strength and direction of relationships between variables in statistical data analysis.

Table 4: System GMM Results

Variables	ROA	ROE	TQ	EM
ROA (-1)	0.518*	-	-	-
ROE (-1)	-	0.686*	-	-
TQ (-1)	-	-	0.260*	-
EM (-1)	-	-	-	0.553*
BZ	0.530*	0.178*	0.488*	0.108*
BI	0.239*	0.108*	0.599*	0.118*

CEOD	0.202*	0.637*	0.208*	0.238*
AI	-0.029*	-0.061*	-0.019*	0.040*
AZ	0.018*	0.067*	0.263*	0.019*
ACO	0.060*	0.470*	0.026*	0.405*
GO	0.013*	0.024*	0.041*	0.010*
FO	0.038*	0.118*	0.124*	0.289*
MO	0.041*	0.726*	0.106*	0.811*

The research concluded that board size had a positive and statistically significant effect on the performance of the organization. That's why the study concludes that there shouldn't be any caps on the number of directors in Jordanian companies. Therefore, the findings further support the idea that Jordanian businesses (across the financial, service, and industrial sectors) need a larger board size to improve their responsiveness to stakeholders. Most importantly, this result is in line with the null hypothesis, which claims that there is no significant relationship between the size of the board and the performance of the firm. The size of a company's board of directors has been shown to have a significant effect on its success in numerous studies [65]. This research concludes that an impartial board can improve a company's bottom line. Many worldwide corporate governance norms of best practice advocate for board independence on the assumption that independent directors, who have no vested interest in the company, will look out for shareholders' best interests. This empirical research found that an independent board of directors improves a company's bottom line. Previous research had also concluded the same thing; thus, this finding shouldn't come as a surprise [65]. The results of this empirical study show that having two CEOs is detrimental to a company's success. That is to say, the research indicates that having two CEOs is detrimental to the company's success. The results of this study don't square with those of other studies that have shown that having two CEOs can boost a company's success. Find the research in [1], these findings also suggested that there was little to no correlation between having two CEOs and a company's bottom line [14]. Yet, this finding is in keeping with [11]. The research found that managerial ownership had a favorable and statistically significant impact on a company's bottom line. [11], find inconsistencies with this finding. [14], also observed a substantial positive and negative association; therefore this finding is in line with theirs. Since directors do not possess a disproportionate number of shares, business performance cannot be used to determine management ownership. The research showed that having family members involved in running a business improved its overall success. [20], is agree with this finding (2019). But the end outcome doesn't square with what we know about [29]. This research shows that family businesses play a crucial role in Jordan's economic development. Having more family members invested in the business improves its performance, which in turn encourages more members of the family to buy in. Having a greater stake in the company's success, families in Jordan have a vested interest in seeing it thrive thanks to the country's high percentage of family ownership. This research also confirms previous findings that public sector ownership boosts business success. The results are consistent with those of [1,14]. On the other hand, this finding runs counter to the findings of [32], which discovered no correlation between government ownership and firm performance. The findings suggest that the "helping hand" of government improves a company's

Performance more than the "grabbing hand" of managers. This result accords with what has been seen in other studies conducted in both developing and wealthy nations. The findings also indicate that control is more important than ownership. This empirical study's findings point to a positive relationship between audit committee size and corporate performance. What this means is that the research indicates that the size of the audit committee has a positive and statistically significant effect on the performance of the organization. Numerous studies, including those by [1], attest that the size of an organization's audit committee has a significant impact on the company's financial performance (2019). This finding, however, conflicts with those of [29]. Insignificant impacts were also detected in some of the outcomes [34]. It was found through this study's empirical analysis that having an independent audit committee can have a detrimental effect on a company's financial outcomes. That is to say, the research found a negative and significant influence of the audit committee independent on firm performance, suggesting that a lower audit committee independent will improve firm performance. Previous research, including that by [1] and [34], all verified the positive association; hence this finding contradicts their findings [65]. Found a weak correlation, in contrast to the strong one found by [31]. According to the results of this research, members of the audit committee who also hold shares in the company tend to have a more optimistic view of the company's prospects. This finding agrees with [51]. On the other hand, this finding contradicts the findings of [52,53]. This could be because the agency problem is mitigated and the convergence of interests between managers and owners is bolstered by the audit committee ownership implemented in the form of committee attributes, which in turn affects the market valuation of enterprises. The findings show that shareholder involvement in controlling businesses is typically higher when the audit committee is owned by the shareholders rather than the board or regulators. in order to raise the level of corporate governance discussion in the public sphere, hence improving corporate governance within businesses.

5.1. Mediation Analysis

In this paper, we investigate how earnings management influences the connection between corporate governance and firm performance. For this mediation test, we will follow the procedure laid out by Preacher and [66]. Earnings management was found to be the medium between corporate governance and business performance, as predicted by the study's hypotheses. Previous empirical work consisted of the large indirect effect of the board structure on earnings management. These results also suggest the structure of the board of directors is to oversee the management in order to prevent opportunistic behavior by the management (such as earnings management) and to make investors aware of the possibility of expropriation by the management. There's a correlation between board size, independence, and the degree to which real earnings are managed. The monitoring efficiency of a board increases dramatically as its size increases. However, the study found that a larger number of board members made it more challenging for the board to perform its oversight function. On the other hand, the outside directors are not part of management and may have better management oversight because of this. Therefore, the greater the number of independent directors, the more effective their oversight will be. According to the study's findings, a more independent board is associated with better actual earnings management. When it comes to the board's ability to perform its monitoring role, its size and make-up are critical factors. Earnings management is unrelated to the chairman's ownership, collateralization, or dual status. This research suggests that relying on the board to oversee management is risky if the board is both highly independent and very large. Having a larger number of independent directors on the board also gives investors more confidence in the financial statements. The present research demonstrates a beneficial and statistically significant association between managerial, governmental, and family ownership and earnings management. Based on the data in Table 4, it appears that managerial, family, and government ownership are relatively low in Jordanian listed companies. This is significant because the lower the level of these types of ownership, the greater the incentive for managers to engage in real earnings management practices. This research shows that profit management efforts in Jordanian listed companies are not constrained by the relatively low levels of managerial, family, and government ownership. Furthermore, this finding suggests that increasing managerial, family, and government ownership is necessary to compensate for the shortcomings of existing corporate governance methods. The findings reveal a substantial inverse association between audit committee characteristics (composition, independence, and ownership) and earnings management. Based on the findings, it appears that a larger audit committee gives managers more leeway to artificially inflate profits. The findings also indicate that earnings management is diminished when the audit committee has a majority of members who are not also audit committee owners. These results indicate that the presence of a large number of audit committee ownership members and the independence of the majority of the audit committee's directors both increase the audit committee's efficacy in reducing the risk of aggressive earnings management.

6 Conclusions and Recommendations

6.1. Conclusions

The overall corporate governance processes and firm performance have been studied for some time; however, the results have been mixed. In addition, the indirect influence of earnings management in this association was not addressed in the prior literature, so this study only gave a partial picture. This research takes a novel approach to the well-established governance-performance literature by investigating earnings management's moderation effect on the value of governance. This is the primary focus of the investigation. [62], draw on the work of [63], to establish criteria for use in mediation. Independent variables in this research were board characteristics, ownership structure, external audit quality, and the audit committee. Similarly, discretionary accruals stand in for earnings management as the dependent variable. There is a negative correlation between audit committee independence and firm performance, and a similar negative correlation is found between board independence and TQ, ROA, and ROE. There is a strong positive correlation between business performance and the remaining constructions (board size, CEO duality, audit committee size, audit committee ownership, and ownership structure). And earnings management is highly correlated with every independent variable. The board's decision-making and the reduction of discretionary powers and actions that can give reports an unrealistic perspective on the affairs of the company are greatly aided by the directors' ability to maintain their independence from the company. With this freedom from major influence from earnings management, independent directors can play their proper role in ensuring the honest and transparent presentation of annual financial statements. Therefore, it is in the best interest of shareholders to ensure that the board has as many independent directors as possible. By utilizing the external audit and audit committee mechanisms, a true and fair image of the company's financial operations can be presented to investors.

6.2. Recommendations

The businesses in Jordan should prevent any interference with the work of their auditors by switching auditing firms once a year. Firms in Jordan should establish regulations that make it less likely for businesses to pick an auditing company as a means of shielding the interests of their stakeholders. By comparing current results to prior years' figures, tax authorities, potential investors, and company shareholders can all see if earnings were manipulated in any way. The following factors should be included in the agenda for future studies: Limiting the temptation to manipulate earnings and improving the company's long-term success are both aided by board meetings. To further our understanding of how corporate governance impacts a company's bottom line, future studies may examine the timing of board meetings. Earnings management is influenced by many factors, including the level of financial literacy of directors, which should be investigated in future studies. The addition of foreign investors or owners could be a key element in propelling the company forward. For a more accurate evaluation of the prevalence of earnings management, it should be taken into account as well. In the future, real earnings management may also be taken into consideration, and a disaggregated examination of the impact of CG can be conducted.

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