

DOES CORPORATE GOVERNANCE CONSTRAIN EARNINGS MANAGEMENT IN AN UNSTABLE ECONOMIC AND POLITICAL ENVIRONMENT?



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ABSTRACT

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The purpose of this research is to examine the effects of corporate governance structures on earnings management behavior in a weakly governed and politically unstable environment. A panel of data from 35 non-bank companies listed on the Palestine Exchange between 2012 and 2019 was employed. A fixed effects regression model was used to examine the impact of certain board characteristics (board size, board meetings, and audit committee formation) and ownership structures (institutional ownership, foreign ownership, and ownership concentration) on earnings management in the volatile and risky political and economic environment of Palestine. The findings indicate that corporate governance and ownership systems in Palestine appear to be ineffective in constraining earnings management practices. None of the board attributes appear to constrain earnings management practices. However, there is weak evidence to show that ownership concentration has some effect in curbing earnings manipulation. The findings of this study are expected to increase awareness among Palestinian regulators, investors, and other policymakers regarding the role of boards of directors and institutional and foreign shareholders in monitoring Palestinian listed companies to enhance corporate governance and the quality of financial reporting.

Contribution/Originality: The study contributes to the extremely limited literature on the role of corporate governance in an environment where political and economic instability and agency conflicts are high and ownership structures differ from those in other economies.

1. INTRODUCTION

Since the beginning of the millennium, a series of high-profile accounting scandals involving various prominent companies (e.g., Health South, Enron, WorldCom, American International Group (AIG), and Lehman Brothers) have occurred around the world. These scandals have undermined the confidence of investors and other stakeholders in the reliability of financial reporting. The separation of ownership and control is a distinguishing feature of public corporations. This separation, according to agency theory, leads to possible conflict between agents (managers) and principals (owners), as these parties have different goals (Davis, Schoorman, & Donaldson, 1997). While shareholders are interested in maximizing their wealth, which can be achieved by

increasing a share's price and dividends, managers usually seek to maximize their salaries, benefits, and job security (Jerzemowska, 2006). Therefore, managers are more inclined to use their position to manage business results for their personal gain at the expense of the owners who are often unable to keep a close eye on management. Although there is no consensus on a single definition of earnings management, there is considerable agreement among researchers that managers use corporate financial reporting to manipulate results in an effort to gain personal benefits. Joubert and Fakhfakh (2012) argued that the key motivations for earnings management are dominant minority ownership and capital market factors. Previous research has shown that managers manipulate earnings to meet financial analysts' forecasts (Iatridis & Kadorinis, 2009), smooth earnings volatility (Cormier, Magnan, & Morard, 2000), promote stock prices for initial public offerings (Friedlan, 1994), avoid reporting losses (Charoenwong & Jiraporn, 2009), and achieve personal benefits (Baker, Collins, & Reitenga, 2009).

Managers employ two main forms of earnings management. The first is called real earnings management and happens when management makes operational decisions that impact the amount and timing of cash flow from operations (Gunny, 2010). The basic assumption of real earnings management is that managers change the timing and/or structuring of real transactions to achieve their target profits. This is accomplished by reducing discretionary expenses, such as research and development, selling and advertising expenditures, overproducing to lower the cost of goods sold, or postponing investment in capital projects (Roychowdhury, 2006). The second form of earnings management is referred to as accrual earnings management. This mainly takes place when managers adjust accruals through the discretionary choices of accruals to achieve specific targets. In the process of implementing accounting policies, management must make certain judgments and estimations, such as the estimated useful lives and salvage values of fixed assets, pension obligations, bad debt expenses, and asset impairments. Similarly, accounting standards provide management discretion in selecting the accounting methods to be used, such as inventory measurement, revenue recognition, and depreciation methods. The use of managerial judgment and discretion over certain accounting choices could thus have a material impact on the amounts reported in financial statements and disclosure notes. To resolve agency conflict and align managers' interests with those of shareholders, managers may tend to take advantage of this flexibility to influence reported earnings, revenue, or total assets (Jiraporn, Miller, Yoon, & Kim, 2008). According to Healy and Wahlen (1999), the most prevalent earnings management technique is accrual earnings management, in which managers exercise their discretion over accounting methods and provisions to affect outcomes without influencing cash flow. Agency theory has been utilized in the prior literature to explain earnings management behavior. Conflicts of interest and information asymmetries caused by the separation of ownership and control in public corporations (Jensen & Meckling, 1976) may cause managers to favor their own interests over the interests of their shareholders.

According to agency theory, the extent of earnings management practices can be reduced by monitoring the company through corporate governance mechanisms (Nazir & Afza, 2018). In this respect, Xue and Hong (2016) argued that sound governance mechanisms improve the efficiency of management monitoring and, as a result, reduce discretionary earnings management behavior. The principal-agent conflict may increase in the absence of an effective governance framework, allowing managers to behave opportunistically, resulting in lower reported earnings quality.

This study seeks to examine the role of corporate governance in controlling practices of earnings management in Palestine. Although the literature on both developed and emerging markets has thoroughly studied the impact of various corporate governance characteristics on the quality of financial information, we believe that Palestine offers special and unique institutional characteristics to justify examining the effectiveness of corporate governance in restricting the management of earnings for at least two reasons. First, the business environment in Palestine is characterized by a high level of political and economic instability, weak institutional and legal frameworks, limited regulatory enforcement power, and a lack of control over the core economic and fiscal policy tools. Second, the corporate ownership structure is another notable institutional aspect of the Palestinian economic environment. One

of the key variations between corporate governance systems in different nations is the variance in company ownership and firm control. In Palestine, there are two categories of controlling shareholders of listed companies: foreign and institutional. Therefore, this study aims to contribute to the extremely limited literature on the role of corporate governance in an environment where political and economic instability and agency conflicts are high and ownership structures are different from those in other economies. Furthermore, the study findings are expected to increase awareness among Palestinian regulators, investors, and other policymakers regarding the role of boards of directors and institutional and foreign shareholders in monitoring Palestinian listed companies to enhance corporate governance and the quality of financial reporting.

The remainder of this paper is structured as follows: A brief description of the Palestinian environment is given in the Section 2, the previous literature and hypotheses are covered in Section 3, the study's methodology is explored in Section 4, Section 5 summarizes the results, and finally, Section 6 offers conclusions.

2. THE CONTEXT OF PALESTINE: A BRIEF BACKGROUND

The Palestinian territories (West Bank and Gaza Strip) had been occupied by Israel since 1967, with direct occupation continuing until 1993, when the Oslo agreement between the Palestinian Liberation Organization and Israel formally established the Palestinian National Authority (PNA) with limited authority over certain West Bank and Gaza Strip districts. The PNA was established as a transitional governing body while Palestinians and Israelis explored a permanent solution to their conflict, which was scheduled to be reached by 1999. The Palestine Exchange (PEX) was founded in 1995 as a for-profit private corporation to promote investment in the Palestinian territories. In early 1997, the PEX held its first trading session. The PEX's founding has been regarded as a major economic achievement. As a consequence of better security and economic conditions, as well as international donor backing, the Palestinian economy has grown considerably. However, the region witnessed an increase in violence after the Oslo Agreement's five-year transitional period ended in 1999 without a permanent peace accord. Israel again seized Palestinian areas and restricted Palestinian movement severely. Even though there is substantial evidence that security, political and economic volatility have a detrimental impact on investor confidence and stock market performance, the PEX's performance in the ensuing years has defied this assumption. The number of firms listed on the exchange increased from eight in 1997 with a market capitalization of US\$ 530 million to 48 in 2019 with a market capitalization of US\$ 3,757.5 million. This trend presents several interesting considerations such as: Why does the PEX not reflect the country's lack of security and its economic and political circumstances? Why has the stock market done so well in a volatile and risky economic environment? Has the introduction and implementation of a corporate governance code contributed to such an unanticipated outcome? If so, does this mean that sound governance practices will become effective in a volatile corporate environment? It is therefore critical to analyze the impact of good corporate governance on firms' stock market performance in a volatile setting such as Palestine.

This study examines the key corporate governance characteristics that may have influenced earnings management practices in non-bank firms listed on the PEX between 2012 and 2019. Few studies have evaluated the impact of the Code of Corporate Governance in Palestine since its establishment in November 2009 (Falah, 2017; Jarrar, 2016). Hence, the present study adds to the limited extant governance literature in Palestine with its unstable political and economic environment. Moreover, the findings of this study enable policymakers and regulatory agencies in Palestine to assess the extent of the practices used by Palestinian listed companies to manage their earnings as well as the efficiency and limitations of current corporate governance practices.

3. LITERATURE AND HYPOTHESES DEVELOPMENT

The world is experiencing a unique era of globalization characterized by proliferating changes, the "assumed" positive consequences of which have been unequally distributed among developed and developing countries. While

inadequate corporate governance, *inter alia*, was blamed for the financial scandals of the preceding decades, it has also played an important role in the aforementioned gap because of the stakeholders' high appreciation of the practices of corporate governance in these countries (Chen, Chen, & Chung, 2006; Filatotchev, Jackson, & Nakajima, 2013). Corporate governance refers to the authority and control of steering business activities (Solomon, 2020). The following section provides an overview of the key theories and mechanisms of the corporate governance framework as the current study explores the relationship between corporate governance and phenomena related to earnings management that are of academic interest (Sáenz González & García-Meca, 2014; Sultana, Rahman, Ramireddy, Chen, & Glushenkov, 2017; Xie, Davidson III, & DaDalt, 2003).

3.1. Corporate Governance Theories

The primary concern of the agency theory is to address the agency problem that results from the separation of ownership and control. The majority of the extant research based on this model has emphasized the importance of sound corporate governance processes in mitigating conflicts of interest between principals and agents by taking on a "watchdog" role (Fama & Jensen, 1983a; Hillman & Dalziel, 2003; Jensen, 1993; Kwakye, Owusu, & Bekoe, 2018; Shleifer & Vishny, 1997). As a weak practice of corporate governance according to the agency theory assumption, Jensen (1993) stated that internal control system efficiency and financial performance are enhanced by a smaller board directors. Prior research has confirmed the positive influence of a smaller board on a company's sustainability (e.g., (Platt & Platt, 2012; Rajeevan & Ajward, 2019; Shah, Rashid, & Shahzad, 2019; Vafeas, 2000)). Likewise, Al-Jaifi (2017) found that a high concentration of ownership leads to the manipulation of earnings information for informative purposes. However, the theory is subject to growing criticism regarding its prepositions and inconclusive empirical findings (Akhtaruddin & Haron, 2010; Ebrahim, 2007; Filatotchev et al., 2013; Shahwan, 2015). According to Filatotchev et al. (2013), the institutional environment and legislative framework of a country may have an impact on the "watchdog" role of the board of directors. Ebrahim (2007) and Ahmad, Khan, and Zahid (2020) found that firms with large boards are associated with lower earnings manipulation. Similarly, in a sample of Egyptian listed corporations, Shahwan (2015) demonstrated an insignificant negative relationship between board of director characteristics and the likelihood of financial distress.

As an alternative to agency theory, resource dependence theory was developed by Pfeffer (1973) and Salancik and Pfeffer (1978). According to this theory, a firm's performance and value are heavily dependent on how successfully the board of directors develops long-lasting relationships with other organizations. In this regard, resource dependence theory suggests that large boards with varied backgrounds enhance the organization's access to outside resources and specialized skills (Hillman & Dalziel, 2003; Yusoff & Alhaji, 2012; Zahra & Pearce, 1989).

The stewardship theory proposed by Donaldson and Davis (1991) suggests that shareholders and management have no conflict of interest. Contrary to the assumptions of agency theory, chief executive officers (CEOs) and other company executives are neither opportunistic nor motivated by self-interest; however, they can be deemed responsible stewards, with the primary objective of optimizing shareholders' wealth (Ciampi, 2015). Accordingly, shareholders should adopt appropriate corporate governance mechanisms to enhance managers' autonomy while improving firm performance and building trust (Davis et al., 1997; Donaldson & Davis, 1991; Kim & Yoon, 2008).

The narrow objective of organizations to maximize shareholder wealth is criticized by stakeholder theory, as it offers a wider view of organizations and considers the interests of all stakeholders (Freeman, Wicks, & Parmar, 2004; Kyereboah-Coleman, 2007; Smallman, 2004). Smallman (2004) considered stakeholder theory as an extension of agency theory. Kyereboah-Coleman (2007) stated that it extends the role of corporate governance beyond that required by agency theory, as it accentuates the interests of all stakeholders. The current study is motivated by the contradictions that exist across all of the aforementioned theoretical viewpoints on corporate governance mechanisms, particularly in a politically and economically uncertain setting such as Palestine. The following section

reviews the role of corporate governance frameworks in limiting earnings management and develops the hypotheses of the current study.

3.2. Board Characteristics

The board of directors is the most significant and dominant component of internal corporate governance, as evidenced by both theoretical and empirical literature. It has been argued that a firm's performance and trust are more likely to improve via the monitoring and resource dependence exerted by a well-structured, independent, and balanced board (Fama & Jensen, 1983a; Kwakye et al., 2018; Yusoff & Alhaji, 2012). Nevertheless, there is controversy within the theoretical and empirical literature about the ideal size of the board (e.g., (Hillman & Dalziel, 2003; Jensen, 1993)). Large diversified boards have better collective knowledge and a range of expertise and are thus more effective in terms of their connectivity with the firm's environment (e.g., (Akhtaruddin & Haron, 2010)).

Several studies have concluded that firms with large boards are associated with reducing and effectively detecting earnings management (Ebrahim, 2007; Yu, 2008). However, other studies have revealed that a smaller board size is more likely to limit earnings management practices (Vafeas, 2000). Based on the aforementioned arguments and contradictory findings regarding the influence of board size on earnings management, the current study investigates board size as a proxy for the influence of the resource dependence role on earnings management practices by testing the following hypothesis:

H1: A statistically significant relationship exists between the board size and earnings management practices among non-bank firms listed on the PEX.

As the main responsibility of the board, agency theory suggests monitoring to alleviate the conflict of interest between management and owners and to reduce the costs of agency problems. In this sense, this study investigates the frequency of board meetings as a proxy for the monitoring role of earnings management practices (Jensen, 1993; Vafeas, 2000; Wijethilake, Ekanayake, & Perera, 2015). Vafeas (2000) argued that a lower number of meetings is followed by the tendency of management to behave contrary to the interests of the shareholders. Consequently, the frequency of board meetings is a reliable proxy for effective corporate governance to monitor managers' behavior (Zahra & Pearce, 1989). Certain empirical studies have documented that the number of board meetings minimizes earnings manipulation (Chatterjee, 2020; Sajjad, Abbas, Hussain, Ullah, & Waheed, 2019).

However, there is also evidence that more frequent and regular board meetings may not create a positive impact on monitoring activities as boards members' ability to devote their full attention to their monitoring role is limited by the fact that they hold multiple directorships (Jensen, 1993; Lipton & Lorsch, 1992). Since the board's monitoring role, as proxied by the number of meetings, is debatable, the current study investigates the following hypothesis:

H2: A statistically significant relationship exists between the frequency of board meetings and earnings management practices among non-bank firms listed on the PEX.

Agency theory suggests that the audit committee (AC) is a fundamental component of corporate governance as it enhances the reporting quality, minimizes information asymmetry, and reduces irregularities and unreliable disclosure. Prior research on the effect of ACs on earnings management has produced conflicting and inconclusive results. Numerous studies have documented that companies that have established ACs are less likely to manipulate earnings (Mohammad, Wasiuzzaman, & Salleh, 2016). Another stream of literature (Baxter & Cotter, 2009) found no evidence of a connection between the AC and earnings management. Considering the agency theory argument and the findings of various earlier studies, it is reasonable to expect that the presence of an AC will have a significant influence on restraining the managerial opportunistic behavior of earnings management. Therefore, the following hypothesis is proposed:

H3: A statistically significant relationship exists between the establishment of the audit committee and earnings management practices among non-bank firms listed on the PEX.

3.3. Ownership Structure

Agency theory argues that ownership structure can directly influence principal–agent relationships. In other words, an ownership structure can have an impact on a firm's agency problems, either positively or negatively. Ownership concentration can influence the direction and strength of the correlational relationship between board structure and earnings quality. According to Shleifer and Vishny (1997), when a corporation has a dispersed ownership structure, management is more likely to exert a greater influence within a company's organizational structure. When compared to developed countries, emerging economies are distinguished by concentrated ownership. As a result of concentrated ownership, a different agency problem arises, namely the principal–principal agency problem.

This form of agency problem arises when the controlling shareholder (large and/or institutional shareholder) has the capacity and willingness to deceive minority shareholders in various ways while retaining firm control over their resources in addition to keeping their business practices legitimate and professional, i.e. the entrenchment effect (Al-Jaifi, 2017; Kim & Yoon, 2008; Yasser, Mamun, & Hook, 2017). However, it has been argued that concentrated shareholding may enhance company governance since it allows managers to align with shareholders' interests, i.e., the alignment effect (Eaton, Nofsinger, & Varma, 2014; Hart, 1995; Sharma, 2004). Hart (1995) emphasized the importance of ownership concentration given the desire of “free riders” to benefit from the effectiveness of corporate governance exerted by concentrated ownership.

It has been argued that large shareholders have greater incentive and power to monitor managerial behavior effectively and, in turn, exert an alignment effect and mitigate managers' opportunistic discretionary accounting choices (Shleifer & Vishny, 1986). This argument has been empirically supported as a stream of research found that ownership concentration mitigates management discretionary behavior and enhances earnings quality (e.g., (Ali, Salleh, & Hassan, 2008; Amrah, Hashim, & Ariff, 2015)). However, it has been argued that influential shareholders utilize their influence to choose directors who will not closely monitor them (Guizani, 2013). In this sense, large shareholders can exert an entrenchment effect (Guizani, 2013; Siregar & Utama, 2008; Yasar, 2013).

Institutional investors, who often possess greater sophistication and power than individual shareholders, exert significant corporate control. Proponents of the aforementioned point of view support the alignment effect of this group of investors in monitoring governance mechanisms and reducing the costs related to bridging the conflict of interest between management and institutional shareholders (Eaton et al., 2014; Joubert & Fakhfakh, 2012; Kałdoński, Jewartowski, & Mizerka, 2020; Saona, Muro, & Alvarado, 2020; Sharma, 2004). The findings of some studies have indicated that the likelihood of fraud and discretionary accruals decreases with increased institutional ownership (Sharma, 2004) and with increased information-sharing regarding earnings (Joubert & Fakhfakh, 2012). However, critics of the positive role of institutional investors consider the entrenchment effect as violating the substance of corporate governance for their own interests at the expense of other stakeholders. In this sense, institutional investors may collude with the management or controlling shareholders to attain their own benefits and thus engage with these parties in manipulative activities (Burns, Kedia, & Lipson, 2010; Siregar & Utama, 2008). This study argues that if one or a few institutional investors hold substantial power or influence they may also have control over the structure of the board and its relationship to earnings management practices as follows:

H4: A statistically significant relationship exists between the number of blockholders and earnings management practices among non-bank firms listed on the PEX.

H5: A statistically significant relationship exists between institutional ownership and earnings management practices among non-bank firms listed on the PEX.

Foreign ownership, *inter alia*, may be categorized as a type of ownership concentration. In a country's development, foreign ownership plays a key role by transferring technology and having spillover effects on local firms. Palestinian firms have a sizable level of foreign ownership (Hassan & Hijazi, 2015). However, it should be

noted that foreign ownership may have a bidirectional effect, that is, entrenchment or alignment, on the effectiveness of corporate governance and, in turn, on earnings management practices (Guo & Ma, 2015).

The empirical evidence on the link between foreign ownership and earnings management is contradictory. While some studies have indicated that foreign ownership helps to restrict earnings management practices (Choi, Chung, Kim, Kim, & Choi, 2020; Debnath, Chowdhury, & Khan, 2021), others have concluded that foreign investors have no significant impact on earnings manipulation (Al-Haddad & Whittington, 2019).

Since foreign institutions have an information disadvantage compared to their local counterparts, Coval and Moskowitz (2001) concluded that local institutions can monitor firms better than foreign ones. In this sense, this study posits that foreign ownership, as a type of ownership concentration, affects earnings management practices as follows:

H6: A statistically significant relationship exists between foreign ownership and earnings management practices among non-bank firms listed on the PEX.

4. DESIGN AND RESEARCH METHODOLOGY

4.1. Sample and Data

The current study relies solely on secondary data extracted from the annual reports of companies listed on the PEX between 2012 and 2019, as well as from various bulletins published by the PEX during the same period. By the end of 2019, 48 companies were listed on the PEX, categorized into five major sectors representing key areas of the economy: banking and financial services, insurance, investments, industry, and other services. In the initial stage of the research, all 48 listed firms were identified and set for consideration in our sample. Two selection filters were employed. First, the six banking and financial services firms were excluded because the characteristics (Peasnell, Pope, & Young, 2000) and accounting particularities (Lassoued, Attia, & Sassi, 2017) of firms in this sector differ significantly from those of firms in the other sectors. Second, seven firms from the other sectors were excluded due to incomplete or missing data. Thus, the final sample consisted of 280 observations for 35 firms over eight years, from 2012 to 2019.

This research employs panel data over this period to capture the impact of the implementation of the Palestinian corporate governance code on earnings management practices in Palestine. The National Committee of Governance released the Code of Corporate Governance in Palestine in November 2009. However, the first two years of the code's implementation (2009 and 2010) were excluded from this study. As the code was in its infancy, there was little awareness of it among Palestinian listed firms, and most of these firms had limited experience in implementing its provisions (Hassan, Naser, & Hijazi, 2016). Therefore, 2012 was selected as the first year in this study. The final year of the data, 2019, was the most recent year for which the listed firms published their annual reports during the data collection period.

Accounting data and corporate governance attributes were gathered from electronic copies of the annual reports of companies listed on the PEX as well as from various bulletins published by the PEX. Table 1 shows the composition and distribution of the sampled firms.

Table 1. Sample composition

Sector	Total Firms	Included in the Sample
Banking and financial services	6	0
Insurance	7	7
Investments	9	8
Industry	13	11
Services	13	9
Total	48	35

4.2. Measurement of Abnormal Accruals

The dependent variable in this study is earnings management. As mentioned earlier, prior studies have used two models to measure earnings management: accruals and real earnings (Roychowdhury, 2006). In this study, the extent of earnings management among non-bank firms listed on the PEX is measured using accrual-based earnings management. This form of earnings management, where managers may exercise their judgment and discretion over accounting methods and provisions to influence earnings without affecting cash flow, is the most commonly used (Healy & Wahlen, 1999). Constantatos (2018) argued that since accrual earnings management is less costly than making an inappropriate operating decision, managers would likely choose it over real earnings management. Therefore, accrual-based earnings have been employed in most prior research as a proxy for earnings management (Enomoto, Kimura, & Yamaguchi, 2015). Moreover, companies in poor financial condition, owned mainly by institutional investors or burdened with high tax rates, are more likely to use accrual-based earnings management (Huang & Zhang, 2012). As a result, it is highly possible that Palestinian listed firms operating in an unstable political and economic environment with institutional ownership structures (Hassan & Hijazi, 2015) engage in accrual earnings management as opposed to real earnings management.

Accruals consist of the difference between reported income and cash flows from operations. Two components make up total accruals (TOAC): discretionary accruals (DA) and non-discretionary accruals (NDA). The NDA component represents the adjustments to cash flows resulting from the application of accounting standards and does not reflect a company's discretion. On the other hand, the DA component pertains to the adjustments to cash flow selected by managers based on their profit interests. As only TOAC can be observed, researchers must isolate the non-discretionary (normal) component from the discretionary component (abnormal). To assess the extent of earnings management by non-bank companies listed on the PEX, the current study uses the cross-sectional modified version of the Jones (1991) model proposed by Dechow, Sloan, and Sweeney (1995) to compute DA. This model is not only the most powerful for estimating DA (Dechow et al., 1995), it also makes a cross-sectional assessment of earnings management (Kim & Yoon, 2008; Siregar & Utama, 2008). Accordingly, DA are calculated in three steps. The first step entails calculating TOAC by subtracting the operating cash flow from the reported net income as follows:

$$TOAC_{it} = NI_{it} - OCF_{it} \quad (1)$$

Where:

$TOAC_{it}$ = total accruals for company i in year t

NI_{it} = net income of firm i at year t

OCF_{it} = amount of cash flow from operations of firm i at year t .

The second step is to estimate the non-discretionary component of TOAC (NDA) using a cross-sectional version of the modified model (Defond & Jiambalvo, 1991) as follows:

$$TA_{it}/A_{it-1} = \alpha_1(1/A_{it-1}) + \alpha_2[(\Delta REV_{it}-\Delta AR_{it})/A_{it-1}] + \alpha_3(PPE_{it}/A_{it-1}) + \varepsilon_{it} \quad (2)$$

Where:

A_{it-1} = previous year's total assets

ΔREV_{it} = total revenues for firm i in year t less total revenue in year $t-1$

ΔAR_{it} = accounts receivable in year t less accounts receivable in $t-1$

PPE_{it} = gross property, plant, and equipment for firm i in year t

$\alpha_1-\alpha_3$ = regression parameters

ε_{it} = error term for company i in year t .

The third and final step is to estimate DA by taking the absolute value of the difference between TOAC and NDA, as stated in the following equation:

$$DA_{it} = TA_{it} - NDA_{it} \quad (3)$$

Where:

NDA_{it} = non-discretionary accruals for company i in year t .

The absolute value is used because both positive and negative DA are considered a form of earnings management (Dechow & Dichev, 2002).

4.3. Model and Variables Definition

The independent variables include a set of the characteristics and ownership structure mechanisms of boards of directors, namely board size (BSIZE), board meetings (BMEET), audit committee (AC), institutional ownership (INSTIT), foreign ownership (FORGN), and ownership concentration (OC). Furthermore, several control variables (firm size, audit quality, leverage, financial performance, and sales growth) are included in the model to control for firm characteristics associated with corporate governance and earnings management, as documented in the literature. To examine the influence of corporate governance on the level of earnings management, as measured by DA, we regress the following model:

$$DA_{it} = \beta_0 + \beta_1 BSIZE + \beta_2 BMEET + \beta_3 AC + \beta_4 INSTIT + \beta_5 OC + \beta_6 FORGN + \beta_7 FSIZE + \beta_8 AQ + \beta_9 LEV + \beta_{10} ROA + \beta_{11} SG + \beta_{10} + \varepsilon$$

Where: β_0 to β_{11} are the model parameters, and ε is a random error.

Table 2 contains the definitions, measurements, and sources of all variables employed in this study.

Table 2. Variables, definitions, and sources.

Variable	Operationalization	Data Source
BSIZE	Total number of board directors	Firms' annual reports
BMEET	Number of board meetings held in the year	Firms' annual reports
AC	Dummy variable: this has a value of 1 if the firm has voluntarily established an AC, and 0 otherwise	Firms' annual reports
INSTIT	Percentage of shares owned by institutional shareholders	Firms' annual reports
OC	Number of shareholders who hold 5% or more of company shares	Deposit and Transfer Centre Reports issued by the PEX
FORGN	Percentage of shares owned by foreign shareholders	Deposit and Transfer Centre Reports issued by the PEX
FSIZE	Natural logarithm of total assets	Firms' annual reports
AQ	Dummy variable: this has a value of 1 for a local firm affiliated with a big international firm, and 0 otherwise	Firms' annual reports
LEV	Total debt to total assets	Firms' annual reports
ROA	Net income to total assets	Firms' annual reports
SG	Current year's sales minus last year's sales divided by last year's sales	Firms' annual reports

Notes: BSIZE = Board Size; BMEET = Board Meetings; AC = Audit Committee; INSTIT = Institutional Ownership; OC = Ownership Concentration; FORGN = Foreign Ownership; FSIZE = Firm Size; AQ = Audit Quality; LEV = Firm Leverage; ROA = Return on Assets; SG = Sales Growth.

5. RESULTS

5.1. Descriptive Statistics

The descriptive statistics of the dependent and independent variables used in the regression model are summarized in Table 3. The results show that the firms vary in terms of the corporate governance and ownership structure variables. Concerning board size, firms have boards ranging from four to 18 members, with a mean of 8.64 for the whole sample. The boards of directors hold an average of 5.8 meetings per year, with a minimum of one meeting and a maximum of 13. For the audit committee variable, the table shows that 64% of non-financial

Palestinian companies have audit committees. Turning to the ownership structure variables, Table 3 shows that the average institutional ownership during the study period was 47%, indicating that institutions and corporations account for a significant portion of ownership. The table also indicates that while the number of blockholders ranges from 0 to 9 with a mean of 3.2 investors, 22% of the firms' shares are owned by foreign investors. This confirms the argument of Hassan and Hijazi (2015) that Palestinian listed firms are characterized by foreign and institutional ownership structures. The table also shows that the average number of blockholders holding a minimum of 5% of company shares stands at 3.2 for the whole sample.

Table 3. Descriptive statistics for 2012–2019 pooled data.

Variable	Mean	S.D.	Min.	Max.
DA	0.000	0.210	-0.407	1.782
BDSIZE	8.639	2.288	4.000	18.000
BMEET	5.793	1.488	1.000	13.000
AC	0.639	0.481	0.000	1.000
INSTIT	0.470	0.334	0.000	0.9588
FORGN	0.218	0.265	0.000	0.924
OC	3.196	2.179	0.000	9.000
FSIZE	17.377	1.375	14.044	21.087
AQ	0.618	0.487	0.000	1.000
LEV	0.388	0.235	0.009	0.979
ROA	0.049	0.169	-0.623	1.222
SG	0.745	6.779	-1.000	97.346

Notes: DA = Discretionary Accruals; BSIZE = Board Size; BMEET = Board Meetings; AC = Audit Committee; INSTIT = Institutional Ownership; OC = Ownership Concentration; FORGN = Foreign Ownership; FSIZE = Firm Size; AQ = Audit Quality; LEV = Firm Leverage; ROA = Return on Assets; SG = Sales Growth.

5.2. Correlation

An analysis of the Pearson correlation matrix was conducted to examine the direction and strength of association of the explanatory variables employed in the study and to investigate potential multicollinearity among them. The matrix is presented in Table 4.

According to Bryman and Cramer (2011), any pair of explanatory variables that is highly correlated (with a Pearson correlation coefficient ≥ 0.80) can pose a multicollinearity problem. Table 4 indicates that the highest correlation coefficient is 0.4080 (between audit committee and firm size) and the lowest correlation coefficient is 0.01 (between board meetings and ROA). As none of the correlations in this study exceeded the critical value of 0.80, multicollinearity poses no serious concern for the interpretation of the regression results.

Table 4. Pearson correlation coefficients

Variable	DA	BDSIZE	BMEET	AC	INSTIT	FORGN	OC	FSIZE	AQ	LEV	ROA	SG
DA	1											
BDSIZE	-0.1365*	1										
BMEET	0.0394	-0.0294	1									
AC	-0.0843	-0.0275	-0.1298*	1								
INSTIT	-0.0754	0.1208*	-0.1209*	0.1326*	1							
FORGN	0.061	0.0531	-0.0629	0.3925**	0.2347**	1						
OC	-0.0973	-0.1159	-0.3025**	0.3688**	-0.1269*	0.2010**	1					
FSIZE	0.0037	0.3461**	-0.0292	0.4080**	0.1305*	0.2829**	0.0904	1				
AQ	-0.1	0.13	-0.0058	0.4041**	0.3730*	0.0748	-0.2095**	0.3604**	1			
LEV	-0.0225	0.0331	0.047	0.3901**	-0.076	0.1087	0.2701**	0.2615**	0.0708	1		
ROA	0.7501**	-0.1542**	0.01	-0.0959	-0.1768**	0.0601	-0.091	-0.0522	-0.1483*	-0.0932	1	
SG	-0.0199	-0.0631	-0.0874	-0.1229*	-0.0753	-0.0713	0.0456	-0.1073	-0.0966	-0.0172	-0.0212	1

Note: * Correlation is significant at the 0.05 level; ** Correlation is significant at the 0.01 level.

5.3. Regression

To select the most appropriate model for the data, three statistical tests were conducted, as shown in Table 5. First, the Wald test was used to select between the pooled ordinary least squares (OLS) and fixed effect models. Then, the Breusch–Pagan test was conducted to select between the pooled OLS model and the random effects model. Finally, the Hausman test was carried out to select between the fixed effects model and the random effects model. Overall, the three tests revealed the fixed effects model to be the most appropriate.

Table 5. Statistical tests for panel data model selection

Variable	OLS vs. Fixed Effects	OLS vs. Random Effects	Fixed Effects vs. Random Effects
Statistical Test	Wald Test	Breusch–Pagan Test	Hausman Test
Test Statistic	3.030	0.250	70.230
P-value	<0.001	0.310	<0.001

The selected regression model (fixed effects model) was employed, and the findings are presented in Table 6. The overall R-squared value of the model was approximately 28%. Table 6 reveals that, of the six governance variables examined, blockholder investors (ownership concentration) and institutional ownership appear to have the least impact on earnings management practices among non-bank firms listed on the PEX.

Table 6. Fixed effects regression model

Details	Coef.	t	P-value
Constant	-2.394	-7.31	<0.001
BDSIZE	-0.003	-0.34	0.736
BMEET	-0.011	-1.06	0.289
AC	0.029	0.94	0.348
INSTIT	0.082	1.67	0.096
FORGN	-0.022	-0.25	0.806
OC	-0.021	-1.68	0.094
FSIZE	0.137	6.98	<0.001
AQ	-0.050	-1.21	0.229
LEV	0.226	1.99	0.048
ROA	1.077	14.44	<0.001
SG	-0.001	-0.85	0.395
R-squared	Within	0.553	
	Between	0.210	
	Overall	0.277	
F-test	25.870		
P-value	< 0.001		

Notes: DA = Discretionary Accruals; BSIZE = Board Size; BMEET = Board Meetings; AC = Audit Committee; INSTIT = Institutional Ownership; OC = Ownership Concentration; FORGN = Foreign Ownership; FSIZE = Firm Size; AQ = Audit Quality; LEV = Firm Leverage; ROA = Return on Assets; SG = Sales Growth.

The results of the regression indicate that the ownership concentration variable has a marginally significant negative impact on earnings management (at the 10% level). This result indicates that as the number of blockholders (ownership concentration) increases, the managers of Palestinian listed companies appear to be less inclined to manipulate their accounting information because of the effective monitoring mechanism indicated by agency theory (Fama & Jensen, 1983b; Jensen & Meckling, 1976). This finding lends partial support to agency theory, which proposes that investors with a high ownership concentration are expected to have a greater incentive and ability to monitor and exert direct influence on top managers to align their interests with those of the shareholders. Furthermore, these findings are consistent with previous research indicating that ownership concentration mitigates manipulative practices and enhances earnings quality (Amrah et al., 2015; Grimaldi & Muserra, 2017). Hence, the proposed hypothesis that ownership concentration among non-bank firms listed on the PEX has a statistically significant impact on earnings management strategies is partially supported.

A marginally significant (at the 10% significance level) positive association was observed between institutional ownership (INSTIT) and earnings management. This result is compatible with a prior study's findings that institutional ownership and earnings management practices are positively correlated (Cheng & Reitenga, 2009). Therefore, this finding lends support to the entrenchment effect rather than the alignment effect. Institutional investors may have interests that differ from those of minority shareholders, and as a result, they may be motivated to maximize their own interests at the expense of smaller investors (Köhler, 2009). Institutional shareholders tend to engage in manipulative activities with the management team to serve their own interests. This may be true in the case of Palestinian firms, given the small number of firms listed on the stock exchange and the concentration of ownership in the hands of a few institutional investors. The finding does not support agency theory, which contends that significant institutional ownership can constrain earnings management by affecting agency costs.

Foreign ownership and earnings management have a statistically insignificant negative correlation. As observed from the regression analysis, the foreign ownership percentage (FORGN) has a negative but insignificant relationship with DA. Therefore, our findings suggest that foreign investors in the Palestinian context are unable to restrain firms' earnings management. This finding may be explained by the fact that, as investors are geographically distant, they are less informed than domestic investors (Hau, 2001). Moreover, individual investors, rather than institutions, account for a significant portion of foreign ownership in Palestinian listed firms, and thus, they may not have sufficient expertise, experience, and power to act as control mechanisms for managing earnings.

Although earnings management is negatively associated with both board size and board meetings, the negative association reported was insignificant; therefore, the related hypotheses are not supported. This finding indicates that the boards of Palestinian companies do not effectively discharge their duties to prevent earnings manipulation. These results contradict various previous studies (Liu & Tsai, 2015; Xie et al., 2003) but are in line with others (Ahmed, 2014; Kamarulzaman, 2017). There are two possible explanations for this finding. First, directors generally spend most of their meeting time on routine tasks rather than monitoring management effectively (Lipton & Lorsch, 1992). Second, the effectiveness of Palestinian boards may be determined by the qualifications, expertise, knowledge, and independence of the directors as opposed to the number of directors and/or multiple meetings. These findings are at odds with the agency theory, which implies that several board features, including board size and meeting frequency, may influence the board's efficacy in overseeing management and enhancing earnings quality.

Furthermore, the regression results indicate that the audit committee's influence on earnings management practices is positive but insignificant. This, therefore, contradicts the agency theory, which contends that an AC serves as a monitoring mechanism that reduces agency costs and improves corporate reporting. This result can be attributed to the members of these committees lacking sufficient financial expertise. Turley and Zaman (2004) concluded that the mere existence of an AC did not necessarily imply that the committee would function adequately or achieve a particular governance effect.

In terms of control variables, while the extent of earnings management practice was found to have a negative and insignificant relationship with the sales growth (SG) and audit quality (AQ) variables, the model estimates that firm size, leverage, and financial performance are all positively and significantly related to earnings management.

Firm size (FSIZE) is one of the most significant explanatory variables for earnings management in non-bank listed firms. Table 6 demonstrates that firm size and earnings management have a positive and statistically significant relationship. This finding contradicts the results of the mainstream literature on the association between firm size and earnings management (Kurniawati & Panggabean, 2020; Sáenz González & García-Meca, 2014), which provides evidence that large companies have fewer earnings management practices. However, this finding concurs with other studies (Pincus & Rajgopal, 2002) which state that earnings management is more prevalent in large corporations than in small ones. A proposed interpretation is that as large firms face increased pressure from investors and capital markets, managers feel forced to adopt aggressive accounting policies and engage in earnings

management to meet or beat analysts' earnings forecasts (Dechow & Skinner, 2000). This result is consistent with the agency theory argument, suggesting that large firms are more vulnerable to agency costs, which leads to more opportunistic practices (Jensen & Meckling, 1976).

A strong positive association was also identified between financial performance, as measured by ROA, and earnings management practices. This finding supports various previous findings (Abu-Jebbeh & Al-Thuneibat, 2017; Emudainohwo, 2021) stating that profitability is closely related to earnings management, but this contradicts previous research that found a negative association between profitability and earnings management (Anjum, Saif, Malik, & Hassan, 2012; Cudia & Dela Cruz, 2018). The finding therefore suggests that management may use DA to control earnings volatility and show consistent profits by reporting a high (or low) profit downward (or upward) (Beaver, 2002). Managers tend to manipulate high profits downward to avoid paying high taxes, minimize government scrutiny and to reflect the huge total capital employed in the business (Emudainohwo, 2021). Alternatively, managers may be motivated to inflate their firm's profitability to maximize their short-term performance bonuses (Bergstresser & Philippon, 2006).

Similar to the firm size and financial performance control variables, the coefficient of financial leverage is positively and significantly related to earnings management. In highly geared firms, the capital structure is unstable due to high levels of corporate risk, as measured by the leverage ratio, and they may be faced with insolvency or bankruptcy if they fail to pay the interest accrued on their loans or violate other debt covenants. Moreover, highly leveraged firms are more likely to demonstrate positive financial performance to obtain more financing or reschedule loan payments. Consequently, managers tend to engage in upward earnings management to maintain their leverage ratio in line with their debt obligations (Agustia & Suryani, 2018; Lazzem & Jilani, 2018; Wardani & Isbela, 2018). This result supports the findings of prior research suggesting that highly leveraged firms tend to manage earnings downwards (Agustia, 2013).

The regression results show that AQ and the earnings management level have a negative relationship; however, the association is not significant. This suggests that the Big Four audit firms do not constrain earnings management incentives among listed firms in Palestine. This finding is in line with Memis and Cetenak (2012) and Yasar (2013), who documented that Big Four and non-Big Four audit firms are not significantly different in terms of their ability to reduce earnings management. However, this result contradicts most other prior studies (Nwoye, Anichebe, & Osegbue, 2021) which empirically confirmed that companies audited by the Big Four audit firms reported lower DA than firms that were audited by local audit firms.

The sales growth (SG) variable has an insignificant negative relationship with earnings management. This finding is consistent with that of Nayiroh (2013), who found that SG has no effect on earnings management. Despite that, it does not reinforce the findings of previous studies (Astari & Suryanawa, 2017) that show that SG is positively associated with earnings management.

6. CONCLUSION

This study has assessed the extent of earnings management practices among non-bank firms listed on the PEX and the role that corporate governance mechanisms in these firms may play to constrain such practices. Data were gathered from the annual reports of non-bank firms listed on the PEX from 2012 to 2019 as well as from various publications issued by the PEX during the same period. The findings reveal that among the six board and ownership factors studied, only the number of blockholders had a significant, albeit minor, effect on constraining earnings management practices. This result suggests that in an environment characterized by a high level of economic and political volatility, as well as a lack of legal protection for investors, boards of directors and powerful shareholders are more likely to exploit their positions and engage in activities for their personal interests at the expense of minority shareholders. Accordingly, corporate governance mechanisms fail to substitute for the inefficiency of the legal system

in constraining earnings management incentives among listed companies in Palestine, which is characterized by severe political and economic instability.

This study will be useful to Palestinian regulators and policymakers interested in empirical research on the effects of company governance frameworks on financial communication transparency. The most important recommendation is for the corporate governance code to be reviewed in light of the difficulties that have led to its ineffectiveness. However, it is worth mentioning that the study has some limitations. The limited sample size of only 35 listed companies is a major limitation; thus, the findings must be interpreted with caution and may not be generalizable with a high degree of confidence. Another drawback is that the corporate governance indicators used in this study may not accurately reflect the sound governance practices used by Palestinian publicly traded companies. Other governance measures, such as director ownership, the proportion of non-executive directors, CEO duality, gender diversity on boards, the educational qualifications of board members, and audit committee characteristics, are interesting perspectives for investigation. Hence, further research is required.

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