

The Impact of Institutional Ownership and Controlling Shareholder on the Relationship between CEO Power and Earnings Quality in Egypt

Hanaa Abdelkader Elhabashy*
Ibrahim Abd El-Majeed El-Kelety**

(*) Hanaa Abdelkader Elhabashy: Associate professor, Accounting Department, Faculty of Commerce, Menofia University. E-mail: hanaa82@hotmail.com.

(**) Ibrahim Abd El-Majeed El-Kelety: Associate professor, Accounting Department, Faculty of Commerce, Menofia University. E-mail: ibrahimimageed@gmail.com.

Abstract

This study examines how CEO power affects earnings quality and investigates the moderate influence of institutional ownership and the controlling shareholder on this relationship. The study sample includes 44 non-financial EGX-100 companies with 220 balanced observations covering 2017-2021. Four accounting-based measures of Francis et al. (2004) (accrual quality, earnings persistence, predictability, and income smoothing) are used as earnings quality proxies. Based on Finkelstein (1992), this study used three resources of CEO power: structural power, ownership power, and expert power. Multivariate linear regression analysis is applied to panel data using Feasible Generalized Least Squares (FGLS). Results show that CEO's structure and ownership power positively impact accrual quality, earnings persistence, and predictability. However, the CEO's expert power negatively impacts earnings persistence and predictability. The findings suggest that although institutional ownership and the controlling shareholder as individual variables negatively affect earnings quality indicators, they mitigate CEO expert power's negative impact and enhance the CEO power indicators' effects on earnings quality indicators. In addition, the z-score and corporate governance efficiency positively impact earnings persistence and predictability. This finding shows that firms with solid financial positions are more prone to have earnings quality. Further, corporate governance efficiency can prevent power abuses and ensure the CEO is in a firm's interest. Firm size positively influences earnings quality proxies, while financial leverage negatively affects them, supporting the political cost and debt covenant hypotheses in positive accounting theory.

Based on the existing literature, limited attention was paid to the association between CEO power and earnings quality, thus highlighting the novelty and significance of this study. Further, this study examines the potential moderating influence of the controlling shareholder and institutional ownership on such a relationship that has not been discussed in prior research.

Keywords: CEO power, Earnings Quality, Ownership Structure, Agency Theory.

ملخص الدراسة

تهدف الدراسة الى اختبار أثر سلطة الرئيس التنفيذي على جودة الأرباح واختبار تأثير الملكية المؤسسية وملكية المساهم المسيطر على هذه العلاقة كمتغيرات مُعدلة Moderator. variables تم استخدام عينة من 44 شركة غير مالية مقيدة في مؤشر EGX-100 خلال الفترة 2017-2021، وتتكون من 220 مشاهدة متوافقة. استخدمت الدراسة أربعة مقاييس محاسبية لجودة الأرباح وفقاً لـ Francis et al. (2004) وهي: جودة الاستحقاق، واستمرارية الأرباح، والقدرة على التنبؤ، وتمهيد الدخل. استناداً إلى Finkelstein (1992)، استخدمت هذه الدراسة ثلاثة مصادر لسلطة الرئيس التنفيذي: القوة الهيكلية، وقوة الملكية، وقوة الخبرة. وتم تحليل بيانات السلاسل الزمنية المقطعية Panel Data باستخدام طريقة المربعات الصغرى المعممة الممكنة (FGLS). تظهر النتائج أن القوة الهيكلية وقوة الملكية للمدير التنفيذي لهما تأثير إيجابي على جودة الاستحقاق واستمرارية الأرباح والقدرة على التنبؤ. ومع ذلك، فإن قوة الخبرة لدى الرئيس التنفيذي تؤثر سلباً على استمرارية الأرباح والقدرة على التنبؤ. كما تشير النتائج إلى أنه على الرغم من أن الملكية المؤسسية والمساهم المسيطر كمتغيرات فردية تؤثر سلباً على مؤشرات جودة الأرباح، إلا أنها تخفف من التأثير السلبي لقوة الخبرة للمدير التنفيذي وتعزز تأثيرات مؤشرات قوة الرئيس التنفيذي على مؤشرات جودة الأرباح. ترتبط Z-score وكفاءة حوكمة الشركات بشكل إيجابي مع استمرارية الأرباح والقدرة على التنبؤ. تشير النتائج إلى أن الشركات التي تتمتع بمراكز مالية قوية هي أكثر عرضة لتحقيق جودة أرباح. علاوة على ذلك، أن كفاءة حوكمة الشركات يمكن أن تمنع إساءة استخدام السلطة وتضمن أن يكون الرئيس التنفيذي مع مصلحة الشركة. وتدعم نتائج الدراسة فرضية التكاليف السياسية وفرضية عقود الديون في النظرية المحاسبية الإيجابية، حيث أن حجم المنشأة له تأثير سلبي على مقاييس جودة الأرباح بينما يكون للرافعة المالية تأثير إيجابي.

بناءً على الأدبيات الموجودة، تم إيلاء اهتمام محدود للعلاقة بين قوة الرئيس التنفيذي وجودة الأرباح، مما يبرز حداثة هذه الدراسة وأهميتها. علاوة على ذلك، تبحث هذه الدراسة في التأثير المعدل المحتمل للملكية المؤسسية وملكية المساهم المسيطر على مثل هذه العلاقة التي لم تتم مناقشتها في بحث سابق.

الكلمات المفتاحية: قوة الرئيس التنفيذي، جودة الأرباح، هيكل الملكية، نظرية الوكالة.

1. Introduction

Higher-quality earnings provide more information about a firm's performance, altering decision-maker decisions (Dechow et al., 2010). Power is the capability to enforce and influence others (Finkelstein 1992), which allows CEOs to influence others to achieve goals. Agency theory empowers the CEO because shareholders are dispersed, and no one can directly control a firm's resources (Jensen & Meckling, 1976). CEOs have power from their positions, long tenure, shares, and board chairing.

Powerful CEOs dominate decision-making and make decisions for their benefit (Abernethy et al., 2015; Lisic et al., 2016). As shareholder and manager interests differ, agency theory limits CEOs' ability to exploit their position for shareholder gain (Panda & Leepsa, 2017). Board supervision can prevent power abuses and ensure the CEO benefits the company (Finkelstein & D'Aveni, 1994). Agency theory requires an outside director-dominated board for CEO authority (Fama & Jensen, 1983).

This study examines CEO power and earnings quality. The literature argues that managers with stronger bargaining power have more incentives to misallocate corporate resources given information asymmetry (Shleifer & Vishny, 1989; Aboody & Lev, 2000). Such an argument is supported by empirical research (Abernethy et al., 2015; Garcia-Sanchez et al., 2021), as a powerful CEO makes information more opaque. In addition, earnings manipulation allows powerful CEOs to disguise self-dealing. The opacity hypothesis suggests that CEO power decreases earnings quality. However, entrenched, powerful CEOs are less concerned about hiding facts about their behavior (Shiah-Hou, 2021) as they are protected and less prone to being fired. Thus, such CEOs may be more transparent and less inclined to hide unfavorable results, lowering information asymmetry (Armstrong et al., 2012).

Finkelstein (1992) defined structural, ownership, and expert CEO power, each with different sources. While the CEO's structural power originates from their legitimate authority, expert power stems from their deep knowledge and powerful influence on company decision-making.

Ownership power comes from their shares in the company. This study hypothesizes that CEO power channels negatively affect earnings quality.

Francis et al. (2004) identified seven earnings quality measures and classified them into two categories. The first category is accounting-based and includes (accruals quality, persistence, predictability, and income smoothing); only accounting information estimates this category. The second category is Market-based earnings quality measures containing (value relevance, timeliness, and conservatism). This category is estimated from accounting information and stock prices or returns. Accounting-based earnings quality indicators presume accruals efficiently allocate cash flows to reporting periods. This study focuses on accounting-based measures established by Francis et al. (2004) as proxies for earnings quality.

Ownership structures affect financial reporting quality (Francis et al., 2005; Zhong et al., 2017). The active monitoring hypothesis indicates that Institutional shareholders are an effective monitoring mechanism that can enhance operating performance (Ferreira & Matos, 2008). Institutional investors are often information collectors and financial mediators, preferring to use the proper accounting procedures to ensure managers protect their interests (Yang et al., 2009). Thus, institutional investors can avoid opportunistic earnings management (Zhong et al., 2017), increase earnings quality, and reduce agency costs (Hadani et al., 2011). Further, the controlling shareholder may exploit minority shareholders for personal gain, increasing agency costs (La Porta et al., 1999). Earnings quality may be affected by the controlling shareholder either through entrenchment or alignment. This study examines the moderate effect of institutional ownership and the controlling shareholder on the relationship between powerful CEOs and earnings quality. Accordingly, this study aims to answer the question of to what extent institutional ownership and the controlling shareholder influence the relationship between CEO power and earnings quality in Egypt through the sub-questions:

- To what extent does CEO power affect earnings quality in Egyptian firms?
- To what extent do institutional ownership and controlling shareholder influence the earnings quality in Egyptian firms?

- To what extent do institutional ownership and controlling shareholders influence the relationship between CEO power and earnings quality in Egyptian firms?
- To what extent do some firm characteristics affect earnings quality in Egypt?

Objectives of the Study: This study aims to investigate the influence of CEO power on earnings quality. Additionally, it examines how institutional ownership and controlling shareholders moderate this relationship through agency theory. It also finds out the impact of some firm characteristics on earnings quality.

Significance of the Study: This study contributes to the current literature by investigating the impact of CEO power on earnings quality. Previous research has paid limited attention to such a relationship, thus highlighting the novelty and significance of this study. Further, this study explores the potential moderating influence of institutional ownership and the controlling shareholder on the association between CEO power and earnings quality, which has not been examined in prior research. The study's findings are anticipated to have significant implications for researchers, investors, policymakers, and corporate directors.

Scope of the Study: This study utilizes the dataset of non-financial firms listed in the EGX100 index. Specifically, only firms that have complete data for all variables examined in the study are included. The dataset covers 2017 to 2021, representing the most recent information accessible for the research period. The analysis excludes financial enterprises due to their inherent differences from non-financial firms, which may result in incomparable characteristics.

The residual of the study is presented as the subsequent section discusses the relevant literature to develop the hypotheses. Section three explains the study methodology employed in this study. It identifies sample and data sources, provides how the variables were measured, and specifies the study models utilized. Section four describes the statistical tools used for data analysis and provides the practical study and hypotheses testing. Finally, the summary and conclusions are given.

2. Literature Review and Hypotheses Development

Prior studies have identified earnings quality determinants. This section reviews relevant literature examining and analyzing the association between CEO power and earnings quality to establish the study hypotheses. It also reviews relevant literature investigating the influence of ownership structure on such a relationship. The theoretical and empirical relationship between CEO power, earnings quality, and ownership structure is highlighted.

2.1. CEO Power and Earnings Quality

Existing literature lacks a consensus on a recognized definition of earnings quality. Earnings of high quality must be communicated in a manner that is objective, comprehensive, and devoid of inaccuracies. Earnings quality increases with decision relevance, as higher-quality earnings convey more information about a firm's financial performance relevant to a specific decision-maker (Dechow et al., 2010). Dichev et al. (2013) indicate that accurate cash flows support high-quality earnings and correctly reflect the firm's operations and economic reality, and consistent reporting choices increase earnings quality.

Power is the capability to enforce and influence others (Finkelstein 1992). Finkelstein (1992) categorized CEO power as structural, expert, ownership, and prestige. These CEOs represent dispersed investors on the board, make opportunistic decisions, and increase their benefits via rewards, special dividends, beneficial related-party transactions, and gaming the system to monitor dispersed investor interests. Accordingly, agency conflicts decrease earnings quality (Srinidhi et al., 2014).

Altunbaş et al. (2020) investigate the influence of CEO power on risk-taking in US banks. They study how the executive board and institutional investors alleviate CEO power's impact on bank risk. The findings indicate that CEO power increases bank risk-taking on multiple measures, and board features do not attenuate this influence. There is an indication that executive board size and independence alleviate powerful CEOs' risk-taking. The results also show Institutional investors support powerful CEOs' risk-taking.

Cherkasova & Markina (2021) investigate the effects of CEO power and personality on earnings quality in developed and emerging economies. The USA, Asia, and Europe make up the data sample. Firms in the USA and Europe are affected by CEO characteristics. However, evidence from Asian markets did not support the hypothesis about the difference between developed and emerging markets. The findings show that the CEO's characteristics significantly impact the company's earnings quality and future growth. The CEO's gender, Age, executive director role as board chairman and seniority are significant indicators of work experience, hard effort, and professional skills. The CEO's essential characteristics represent job experience, hard effort, and professional skills.

Hemdan et al. (2021) use panel data to examine the factors influencing Egyptian firms' earnings quality during 2008-2019. The results indicate that CEO power dynamics (duality, ownership, tenure, and political connections) negatively affect earnings quality. They also examine the moderate effect of corporate governance as a weakening or substitute mechanism. They found that board independence moderates the negative association between CEO ownership and tenure with firm earnings quality. However, the results indicate no relationship between board independence, CEO duality, and political connection regarding the firm's earnings quality.

Nguyen et al. (2021) investigate the impact of the PSCORE, a composite signal score based on accessible CEO data, on earnings quality. The sample included 2005–2012 London Stock Exchange non-financial firms. Results show that the PSCORE and earnings quality proxies are positively associated. Further analysis indicates that when CEOs have substantial equity-based compensation incentives, the correlations between the PSCORE and the earnings quality proxies grow more pronounced.

Shiah-Hou (2021) investigates the influence of CEO power on earnings quality. The study argues that Powerful CEOs can manipulate earnings to mask self-dealing by making the information environment opaque. However, powerful, well-protected CEOs who build a transparent information environment will produce better-quality earnings. CEO power is measured by combining seven CEO powers and using discretionary accruals and earnings response coefficients as proxies for earnings quality. The

results show that CEO power and earnings quality are negatively correlated. Ownership power is associated with higher earnings quality, while structural and expert powers are associated with lower earnings quality. The findings argue that CEO power decreases a firm's earnings quality as CEOs with structural or expert power might flaw governance mechanisms.

Le et al. (2022) investigated CEO power and earnings management in Vietnamese-listed firms covering 2007 - 2016. CEO power and earnings management are also examined for firms with high and low foreign ownership. Both the founder and financial expertise determined CEO power. CEO power is taken one if the CEO is the firm's founder, also if the CEO has financial experience, and 0 otherwise. The composite measure included the CEO founder and financial expertise. They utilized the modified Jones model as a proxy for earnings management. Fixed-effects panel regression models demonstrate that CEO power significantly impacts earnings management, which can be controlled by foreign ownership. CEO power positively impacts earnings management only in firms with large foreign ownership. The same findings are shown when a composite CEO power index replaces the individual CEO power measures.

Ngo & Nguyen (2022) examine how CEO financial and accounting knowledge affects financial reporting quality. 2,435 non-financial firms Vietnamese listed during 2016–2020 were studied. Data analysis uses FEM-ROBUST standard error regression. The results indicate that expert CEOs in finance and accounting significantly impact earnings management, which lowers financial reporting quality.

Alves (2023) uses agency theory to examine CEO duality and earnings quality. It also explores whether board independence moderates CEO duality and earnings quality in Portuguese-listed non-financial firms from 2002 to 2016. The study utilizes a fixed-effects regression model for data analysis to explore how CEO duality affects earnings quality and if board independence moderates that relationship. The findings support agency theory as CEO duality reduces earnings quality. However, a higher share of independent directors mitigates this effect.

Arif et al. (2023) examine the impacts of powerful CEOs on earnings quality. They use data from Bangladeshi non-financial enterprises covering

2010 to 2019 with 1,395 firm-year observations. The findings show that CEOs with higher structural and expert power, as well as CEOs with great political power, have a significant influence on earnings quality. However, ownership power has an insignificant effect on earnings quality. Powerful CEOs manipulate earnings via accrual and real activity. The findings advise limiting CEO political duality and that CEO tenure has to be determined by a reasonable period. This study provides empirical evidence supporting CEO power dynamics on earnings quality.

The opacity hypothesis suggests that CEO power makes information opaque. Shiah-Hou (2021) argues three reasons to justify opacity. First, CEOs increase their job security and negotiating power for compensation by making themselves difficult to replace by withholding certain information about their knowledge obtained from relation-specific investments and contracts (James et al., 2017). Second, CEOs can manage earnings to optimize stock options (Bartov & Mohanram, 2004). Third, the CEO may choose an opaque information environment to avoid corporate governance disciplinary processes. Thus, powerful CEOs can influence earnings for personal gain in an opaque information environment.

On the other hand, the transparency hypothesis suggests that powerful CEOs can improve information transparency. Three arguments support such a hypothesis. First, the "quiet life" hypothesis states that entrenched managers avoid difficult decisions and costly efforts (Zhao & Chen, 2008), explaining CEO power's positive association with information environment quality. Less risky decisions reduce cash flow volatility and improve financial statements. Therefore, powerful CEOs can deliver more transparent information without pressure to manipulate data. Second, robust protection like antitakeover legislation and entrenchment requirements diminish CEO career concerns (Stein, 2003). Therefore, powerful CEOs may be more honest and less likely to hide poor performance. Third, other stakeholders may perceive powerful CEOs as more prone to distorting financial information for personal gain (Williamson, 1983). Thus, powerful CEOs may aim to keep external monitoring quality at or above competing enterprises to mitigate such anxieties (Armstrong et al., 2012). Based on the literature above and considering the research objective and nature, the hypothesis H1 is formulated as follows:

Hypothesis (H1):

There is a statistically negative association between CEO power and earnings quality.

Finkelstein (1992) defined CEO's power as structural, ownership, and expert CEO power, each with different sources. While the CEO's structural power originates from their legitimate authority, expert power stems from their deep knowledge and powerful influence on company decision-making. Ownership power comes from their shares in the company. The structural, ownership, and expert CEO power and its association with earnings quality are discussed as follows:

2.1.1. CEO Structural Power and Earnings Quality

A CEO's structural power comes from their formal position in a company. Previous studies state that a CEO's position is structural power (Sheikh, 2019). CEOs' structural power is strengthened by being the board chair, having several executive representatives, and serving on several board committees. The CEO and chair duality indicates the CEOs' power to lead the board efforts and impose their will to achieve favorable board meeting results (Morse et al., 2011). CEOs' structural power can pressure earnings management to overstate earnings (Florackis & Sainani, 2021).

CEOs' structural power may be good or bad for firms. Hu & Gan (2017) found that CEOs' structural power improves internal control. Tee (2019) demonstrates that powerful CEOs improve accrual earnings in Malaysia. In contrast, Shiah-Hou (2021) and Baker et al. (2019) indicate an association between CEOs' higher structural power and increased accrual earnings management. Likewise, Koo & Kim's (2019) findings show there is an influence of a rise in CEOs' structural power and an increase in firms' opacity. Muttakin et al. (2017) and Bouaziz et al. (2020) found that CEO duality (as a proxy of structural power) has a significant positive impact on accrual earnings management. Mande & Son (2012) noted that high structural power enhances the possibility of meeting market experts' estimates. Therefore, the literature lacks abstract knowledge about how CEOs' high structural power affects earnings quality. This study anticipates that higher structural power will facilitate the ability of CEOs to exert dominance over boards and influence other top executives to pursue

immediate gains in the stock market through manipulating earnings. Abusing CEO power is conducive to the following hypothesis:

Hypothesis (H1a):

There is a negative association between CEOs' structural power and earnings quality.

2.1.2. CEO Ownership Power and Earnings Quality

The literature suggests that managerial shareholdings narrow board influence and make managers more powerful than those without such ownership (Finkelstein, 1992; Fang et al., 2020). Agency theorists argue that ownership causes principals' and agents' interests to align (Jensen & Meckling, 1976). However, CEOs' excessive share ownership might cause horizontal agency problems arising from conflicts of interest between the controlling shareholder and minority shareholders (Hutagaol & Valentincic, 2016), which ultimately decreases the earnings quality (Srinidhi et al., 2014).

Other research found that CEO ownership power decreases internal control quality (Hu and Gan, 2017) and increases earnings management (Li & Kuo, 2017; Feng et al., 2011). Others showed an insignificant impact, as Le et al. (2022) found that earnings management is not associated with CEO ownership power in listed firms in Vietnam. Likewise, Hribar & Nichols (2007) showed no impact of managerial ownership on earnings management. Rashid (2016) found an insignificant relationship between managerial ownership and agency costs. Therefore, the effect of CEOs' ownership power on earnings quality is unsettled and requires more investigation. Horizontal agency problems suggest a negative relationship between ownership power and earnings quality. Thus, hypothesis (H1b) is formed as follows:

Hypothesis (H1b):

There is a negative association between CEOs' ownership power and earnings quality.

2.1.3. CEO Expert Power and Earnings Quality

CEOs' functional expertise allows them to exercise management autocracy and decision-making autonomy (Finkelstein, 1992; Itunbaş et al., 2018). CEO authority and managerial opportunism increase over time (Di Meo et al., 2017). Longer-tenured and more knowledgeable managers have more control over a firm's operational strategies, which leads to more earnings manipulation (Finkelstein, 1992; Hsieh et al., 2018). Long tenure helps CEOs build solid ties with other senior executives. Since other senior executives are motivated by personal financial gain, CEOs find it easier to implement initiatives that meet their aims as their tenure increases and control internal monitoring mechanisms (Darouichi et al., 2021). However, in other cases, the CEO becomes a part of the monitoring process by serving on the audit committee. As a result, in these circumstances, a firm's monitoring division serves only a ceremonial role; this creates the path for self-serving behavior harmful to minority shareholders.

CEO expert power and earnings quality have conflicting results in the existing literature. Some studies show expert CEOs positively impact earnings quality (Oradi et al., 2020). Further, Altarawneh et al. (2022) found that long-serving CEOs improve financial reporting. Other research implies that experienced CEOs lower firms' reported earnings quality (Shiah-Hou, 2021; Hu & Gan, 2017; Li et al., 2016; Altunbaş, 2018; Priscilla & Siregar, 2020; Le et al., 2022). This study argues that CEOs with more expertise will reduce earnings quality because managerial expertise increases executive power (Finkelstein, 1992; Li et al., 2016), and power leads to lower earnings quality. Accordingly, a hypothesis (H1c) is formed as follows:

Hypothesis (H1c):

There is a negative association between CEOs' expert power and earnings quality.

2.2. Institutional Ownership, Powerful CEOs, and Earnings Quality

Ownership structures affect financial reporting quality (Francis et al., 2005). Accounting earnings connect managers' interests with outside shareholders or creditors to reduce agency conflicts (Watts & Zimmerman,

1986; Bushman & Smith, 2001). Accurate financial reporting helps shareholders, creditors, and other financial statement users for contracting and monitoring. To secure better contracting terms, companies must provide high-quality financial accounts (Ball et al., 2000; 2003).

The literature suggests institutional investors drive firms to enhance disclosure, monitoring, performance, and earnings quality (Nagata & Nguyen, 2017). Further, they can proficiently reduce CEOs' opportunistic behaviors by external auditors, as they may demand more external auditing to protect minorities against management and main stakeholders (Rad et al., 2016). Institutional investors prefer firms with good corporate governance and avoid entrenched management firms (Ruiz-Mallorqui & Santana-Martin, 2009). They can enhance firm financial performance because of their monitoring resources and size (Zhong et al., 2017). Hessayri & Saihi (2015) explore ownership structure and discretionary accruals in UAE, Morocco, South Africa, and the Philippines pre- and post-IFRS. Their results show institutional investors enhance firm performance and earnings quality and reduce earnings management practices.

Alternatively, according to the investment horizon hypothesis, institutional investors may work with corporate managers and avoid monitoring them. Institutional shareholders leave a firm rather than control or change administrators if they don't meet their aims (Al-Fayoumi et al., 2010). They argue that institutional investors encourage company managers to generate larger earnings even if they violate accounting regulations. Short-term investments prevent institutions from improving corporate governance and earnings quality (Shayan-Nia et al., 2017). Based on the private benefits hypothesis, covert takeovers inherited by concentrated shareholders enable them to get benefits and private knowledge at the expense of minority stakeholders (Barclay & Holderness, 1989). Thus, this study aims to find the moderate influence of institutional ownership through the following hypothesis:

Hypothesis (H2):

Institutional ownership statistically impacts the association between CEO power and earnings quality.

2.3. Controlling shareholders, Powerful CEOs, and Earnings Quality

Earnings quality may be affected by the controlling shareholder either through entrenchment or alignment. The entrenchment effect encourages firms to manage earnings opportunistically. It supports the idea that firms are less efficient because ownership concentration incentivizes the controlling shareholder to take wealth from other shareholders (Shleifer & Vishny 1997). Horizontal agency problems arise from conflicts of interest between the controlling shareholder and minority shareholders due to imbalanced ownership. This conflict of interest leads to opportunistic behavior in some way and is known as the principal-principal model (Hutagaol & Valentincic, 2016). The controlling shareholder usually holds a position on the board and management. These firms may have poor corporate governance due to insufficient board scrutiny. More information asymmetry between the controlling and other shareholders may also cause entrenchment. Ownership concentration constrains accounting information flow to outside shareholders (Fan & Wong 2002), whereas information asymmetry reduces accounting disclosure transparency (Francis et al., 2005). Thus, the controlling shareholder can lower earnings quality for personal benefits.

However, financial statement users demand high earnings quality from firms with entrenched controlling shareholders to protect their assets and interests. If contracting parties believe controlling shareholders entrench financial reporting, enterprises with controlling shareholders will face more aggressive contracting terms more sensitive to financial reporting quality. Thus, controlling shareholders have motivations to run into more demand from financial statement users and deliver higher earnings quality in return for better contracting conditions and lower cost of capital.

The alignment effect suggests the controlling shareholder has incentives to report higher earnings quality and monitor enterprises more effectively (Shleifer & Vishny 1997). For instance, firms with controlling shareholders can make quick decisions and encourage extended staff tenure for loyalty (Courteau et al., 2017). In addition, the alignment effect suggests that the controlling shareholders are less likely to implement opportunistic behavior

in reporting lower earnings quality since it could affect their reputation, wealth, and long-term success. Thus, the controlling shareholders are driven to report higher earnings quality than others.

If the controlling shareholders improve corporate governance, the alignment effect may reduce contractual parties' need for high-quality financial information. Since their interests are aligned with the controlling shareholders, outside shareholders may rely less on financial disclosures to monitor insiders. The two contrasting theories of the effect of the controlling shareholders on earnings quality demand and supply suggest that the relationship is empirical. Thus, this study aims to find the moderate influence of the controlling shareholder through the following hypothesis:

Hypothesis (H3):

The controlling shareholder statistically impacts the association between CEO power and earnings quality.

3. Research Design

3.1. Sample and Data Sources

EGX-100 firms represent the Egyptian context. EGX-100 index is comprised of Egypt's 100 most active firms. In addition, firms that make up the EGX-100 index are the same ones that make up the EGX30 and EGX70 indices. Thus, it is supposed that firms included in the EGX-100 index have strong governance and reporting.

The research sample was chosen from the EGX-100 index firms from 2017 to 2021, adhering to the specified criteria:

- Excluding the banking and non-banking finance sectors is justified due to financial institutions' highly technical and accounting-oriented nature. Additionally, they are bound by their regulations, which may vary from those imposed on other corporations.
- Firms listing on the Egyptian Stock Exchange remained uninterrupted from 2017 to 2021, with no instances of delisting or cessation.

- The data necessary for measuring variables is accessible from 2017 to 2021.
- The currency utilized in the firm's financial reports is the Egyptian pound.
- The industry consists of a minimum of three firms.

The research sample comprises 44 firms across eight sectors, spanning 2017 to 2021, and encompasses 220 balanced observations. The data includes the published financial statements and is frequently accessible on the Mubasher Info website at <https://www.mubasher.info/countries/eg>. Additionally, the minutes of meetings of the shareholders' general assembly and firms' board reports can be accessed through the official website of the Egyptian Stock Exchange, which can be found at <https://www.egx.com.eg/en/homepage.aspx>, as well as through the respective websites of the firms. Table (1) presents the distribution of observations within the research sample across various sectors.

Table (1): Study Sample's Observations

<i>Sector</i>	<i>Observations</i>	<i>%</i>
Automotive and industrial products	15	7
Basic resources	25	11
Building Materials	25	11
Communications, media, and IT.	15	7
Food, drinks, and tobacco	35	16
Health care and medicine	35	16
Real estates	50	23
Tourism and Leisure	20	9
<i>Total</i>	<i>220</i>	<i>100</i>

3.2. Variables Measurement

3.2.1. Earnings Quality (Dependent Variable)

The study's dependent variable is earnings quality. The study focuses on four accounting-based earnings quality proxies established by Francis et al. (2004): accrual quality, earnings persistence, predictability, and income smoothing. The measures of accounting-based earnings quality proxies are as follows:

(1) Accrual Quality (AQ)

Accrual quality is the amount of income recorded when business unit rights arise from delivering goods to an outside party, and expenses are recognized when the obligation comes from using economic resources connected to the items given (Francis et al., 2004). With a minimum of 15 firm-year observations for every industry to confirm adequate data to capture the predicted parameters, this study follows the Francis et al. (2004) model to measure accrual quality as the $\sigma(\epsilon_{it})$ the standard deviation of the firm's residuals of from the following equation model:

$$\frac{TA_{it}}{Total\ Assets_{it}} = \beta_0 + \beta_1 \frac{CFO_{it-1}}{Total\ Assets_{it}} + \beta_2 \frac{CFO_{it}}{Total\ Assets_{it}} + \beta_3 \frac{CFO_{it+1}}{Total\ Assets_{it}} + \beta_4 \frac{\Delta Sales_{it}}{Total\ Assets_{it}} + \beta_5 \frac{Fixed\ Assets_{it+1}}{Total\ Assets_{it}} + \beta_6 \frac{Book\ Value\ of\ Equity_{it+1}}{Market\ Value\ of\ Equity_{it}} + \epsilon_{it} \quad (1)$$

Where:

TA_{it} : refers to total accruals equals net income (-) cash flow from operations.

CFO_{it-1} : is the firm i's operating cash flow in year t-1.

CFO_{it} : is the firm i's operating cash flow in year t.

CFO_{it+1} : is the firm i's operating cash flow in year t+1.

$\Delta Sales_{it}$: calculated as the firm i's sales in year t (-) in year t-1.

$Total\ Asset_{it}$: is the firm i's total assets in year t.

$Book\ Value\ of\ Equity_{it+1}$: The book value of shares (*) number of shares in year t+1

$Market\ Value\ of\ Equity_{it}$: The market value of shares (*) number of shares in year t

Equation (1) is estimated for each firm of the study sample using 2017-2021 data.

(2) Earnings Persistence (Persist)

Persistence occurs when present profit reflects future and current profit. Earnings quality increases as persistence increases. The Francis et al. (2004) approach measures persistence as an earnings quality proxy using the beta value (β_1) from equation (2).

$$EARN_{i,t} = \beta_0 + \beta_1 EARN_{i,t-1} + v_{it} \quad (2)$$

Where:

$EARN_{it}$: earnings per share of a firm i in year t

$EARN_{i,t-1}$: earnings per share of a firm i in year t-1

β_1 : is the persistence determined using the fixed effect approach based on the estimation from 2017–2021.

(3) *Predictability (Predict)*

Predictability is the capacity of actual earnings to predict future earnings. It is predicated on the idea that a high-quality earnings number will likely repeat itself. Because it improves the accuracy of earnings estimates, earnings persistence and predictability are often seen as desired proxies of earnings quality (Francis et al., 2008). The model below, which is the root of the variance of squared errors, approximates predictability (Francis et al., 2004).

$$EARN_{i,t} = \beta_0 + \beta_1 EARN_{i,t-1} + v_{it}$$

Predictability is calculated using the formula of the square root of the error variable squared $\sqrt{\sigma^2 (Vit)}$ of the equation above using the fixed effect approach based on the estimation from 2017–2021.

(4) *Income Smoothing (Smooth)*

Income smoothing illustrates cash flow-based earnings variations between enterprises. Proxy of earnings quality results from calculating the ratio between StdDev of earnings before extraordinary accounts divided by StdDev of cash flow from operation (Francis et al., 2004) as follows:

$$Income\ smoothing = \frac{\sigma(NIBE_{it})}{\sigma(CFO_{it})} \quad (3)$$

Where:

$NIBE_{it}$: Net income before extraordinary accounts of a firm i in year t

CFO_{it} : The cash flow from the operation of a firm i in year t

An increase in the output of equation (3) from one indicates a decrease in income smoothing level, increasing earnings quality, and vice versa.

3.2.2. Measures of CEO Power Dimensions (Independent Variable)

CEO Power is the independent variable in this study. CEO Power is categorized as structural, ownership, and expert based on Finkelstein (1992). Measures of CEO power dimensions are presented as follows:

(1) CEO Structural Power (*Struct_pwr*)

CEO structural power is calculated based on the CEO's duality when the CEO is also the chairman or vice of the company's board of directors. CEO board chairman duality is a reason for more CEO power. CEO duality is computed as a dummy variable, taking one if the CEO is the chairman or vice of the board of directors and zero otherwise.

(2) CEO Ownership Power (*Own_pwr*)

According to Finkelstein (1992), CEOs' equity ownership powers them. Thus, this study calculates CEO ownership power by calculating CEO and family share ownership. The family includes parents, siblings, spouses, and children. If a CEO or family holds a lot of stock, this study suggests they profit from ownership power. CEO ownership power is the CEO's and family's stock ownership percentage.

(3) CEO Expert Power (*Expt_pwr*)

This study measured expert power by CEO tenure. It is considered that the CEO's tenure is a source of expert power since it increases the CEO's ability to handle uncertainties and influences a firm's major strategic decisions (Abernethy et al., 2015; Lisic et al., 2016). Expert power is the natural logarithm of CEO tenure (Al-Jaifi, 2017).

3.2.3. Institutional Ownership (INST)

Institutional ownership, a moderate variable in this study, is the ratio of ownership owned by institutions like insurance companies, banks, mutual funds, and special accounts (Appel et al., 2016; Elhabashy, 2023).

3.2.4. Controlling Shareholder (CS)

The controlling shareholder, a moderate variable in this study, is the largest shareholder with 10% or more outstanding shares. The controlling shareholder of a firm could have relatives or affiliated firms that are some of the firm's shareholders. These cases are collected manually and added together using financial reports (Jiang *et al.*, 2020).

3.2.5. Control variables

The existing literature identifies multiple variables that have the potential to impact the earnings quality (Cherkasova & Markina, 2021; Hemdan *et al.*, 2021; Nguyen *et al.*, 2021; Shiah-Hou, 2021; Le *et al.*, 2022; Ngo & Nguyen, 2022; Alves, 2023; Arif *et al.*, 2023). These variables are referred to as governing variables and are defined as follows:

LEV: = Total liabilities over total assets.

ROA: Return on assets equals net income over average total assets.

SGR: Ratio change in sales calculated as: $(Sales_t - Sales_{t-1}) / Sales_{t-1}$.

Age: Natural logarithm of a firm Age Ln (Age).

BIG4: A dummy variable is one if the auditor is a Big4 firm or accountability state authority and zero otherwise.

SIZE: Natural logarithm of total assets.

Z-Score: Corporate financial distress is computed based on the Model of Altman (1968), as shown in equation (4):

$$Z - score = 1.2(WC) + 1.4(RE) + 3.3(EBIT) + 0.6(MVE) + 1.0 (S) \quad (4)$$

Where:

WC : working capital / total assets

RE : retained earnings / total assets

EBIT : earnings before interests and taxes / total assets

MVE : market value of equity / total liabilities

S : sales / total asset

The z-score predicts corporate insolvency. Higher scores reduce failure. A score below 1.23 (1.1 for non-manufacturing) implies high failure risk, while 2.9 (2.6 for non-manufacturing) suggests financial stability. A score between the two shows risk.

Table (2): Variable Definitions and Measurement

Code	Description	Measurements
Dependent Variables		
<i>AQ</i>	Accrual Quality	$\frac{\sigma(\epsilon_{it})}{Total\ Assets_{it}} = \beta_0 + \beta_1 \frac{CFO_{i,t-1}}{Total\ Assets_{it}} + \beta_2 \frac{CFO_{it}}{Total\ Assets_{it}} + \beta_3 \frac{CFO_{i,t+1}}{Total\ Assets_{it}} + \beta_4 \frac{\Delta Sales_{it}}{Total\ Assets_{it}} + \beta_5 \frac{Fixed\ Assets_{i,t+1}}{Total\ Assets_{it}} + \beta_6 \frac{Book\ Value\ of\ Equity_{i,t+1}}{Market\ Value\ of\ Equity_{it}} + v_{it}$
Persist	Earnings Persistence	β_1 in equation (2): $EARN_{i,t} = \beta_0 + \beta_1 EARN_{i,t-1} + v_{it}$
Predict	Earnings Predictability	the square root of the error variable $\sqrt{\sigma^2(Vit)}$ of the equation (2): $EARN_{i,t} = \beta_0 + \beta_1 EARN_{i,t-1} + v_{it}$
Smooth	Income Smoothing	The absolute value of the equation (3): $Income\ smoothing = \frac{\sigma(NIBE_{it})}{\sigma(CFO_{it})}$
Independent Variables (CEO power)		
<i>Struct_pwr</i>	Structural Power	A dummy variable: take one if the CEO is the chairman or vice of the board of directors and zero otherwise.
<i>Own_pwr</i>	Ownership Power	CEO shares / total shares
<i>Expt_pwr</i>	Expert Power	Expert power is the natural logarithm of CEO tenure.
Moderate Variables		
<i>INST</i>	Institutional Ownership	It is the percentage of ownership institutions hold (Appel et al., 2016; Elhabashy, 2023).
<i>CS</i>	Controlling Shareholder	It is the natural logarithm of the largest shareholder with 10% or more outstanding shares (Jiang et al., 2020).
Control Variables		
<i>CG_efficiency</i>	Corporate governance efficiency	Corporate governance efficiency θ is determined using the DEA platform between 0 and 1 using equation (5) (Yang et al., 2020; Shahwan & Habib, 2020).
<i>Z-Score</i>	Financial distress	Based on Altman (1968), as specified in equation (4).
<i>LEV</i>	Financial leverage	Total Liabilities / Total Assets
<i>ROA</i>	Return on assets	Net profit/Average total assets
<i>SIZE</i>	Firm size	Total assets' natural logarithm
<i>SGR</i>	Sales growth	Measured as (Sales _t - Sales _{t-1} / Sales _{t-1})
<i>Age</i>	Company Age	The natural logarithm of firm Age.
<i>BIG4</i>	Audit quality	A dummy variable equals one if the audit firm is a big4 firm or accountability state authority, zero otherwise.

Francis et al. (2004)

Nguyen et al. (2021);
Shiah-Hou (2021);
Le et al. (2022)

CG_efficiency: Corporate governance efficiency is calculated using Data Envelopment Analysis (DEA) from equation (5) between 0 and 1. The inputs include corporate governance mechanisms like the board, audit committee, and ownership structure, which affect firm success.

As for the outputs, they are the basic outputs of the company, which may be affected by corporate governance. Including return on sales, earnings per share, and corporate value (Yang et al., 2020; Shahwan & Habib, 2020).

$$CG.efficiency = \frac{EPS + ROE + ROS}{BD.duality + BD.size + CONOWN + Aud.Size + Aud.Ind} \quad (5)$$

Where:

Outputs	<i>EPS</i>	Earning per share.
	<i>ROE</i>	Return on equity.
	<i>ROS</i>	Return on sales.
Inputs	<i>BD.duality</i>	A dummy variable equals 0 if the CEO is the board chairman and 1 otherwise.
	<i>BD.size</i>	The number of board directors.
	<i>CONOWN</i>	The percentage owners of shares of 5% or more.
	<i>Aud.Size</i>	The number of audit committee members.
	<i>Aud.Ind</i>	The number of independent auditors in the audit committee.

3.3. Models Specification

Three models are developed, one for each hypothesis, using equation (6) as follows:

$$EQ_{it} = \beta_0 + \beta_1 CEO_{power}_{it} + \beta_n \sum CONTROL_{S}_{it} + \epsilon_{it} \quad (6)$$

Where:

EQ: alternatively, is one of the earnings quality measures (*AQ*, *Persist*, *Predict*, or *Smooth*).

β_0 : the constant of the regression models

$\beta_1 - \beta_n$: coefficients of the regression models for firm *i* in year *t*.

ϵ_{it} : the residual value.

Model (1) is formed to test the hypothesis (H1) related to the effect of CEO structural power (*Strct_pwr*), CEO ownership power (*Own_pwr*), and CEO expert power (*Expt_pwr*) on earnings quality as follows:

Model (1)

$$CG.efficiency_{it} = \beta_0 + \beta_1 Strct_pwr_{it} + \beta_2 Own_pwr_{it} + \beta_3 Expt_pwr_{it} + \beta_4 SIZE_{it} + \beta_5 SGR_{it} + \beta_6 Age_{it} + \beta_7 LEV_{it} + \beta_8 ROA_{it} + \beta_9 z-score_{it} + \beta_{10} Big4_{it} + \epsilon_{it}$$

Model (2) is formed to test the hypothesis (H2) related to the moderate effect of the institutional ownership (*INST*) on the association between CEO power proxies (*Strct_pwr*, *Own_pwr*, and *Expt_pwr*) as follows:

Model (2)

$$EQ_{it} = \beta_0 + \beta_1 Strct_pwr_{it} + \beta_2 Own_pwr_{it} + \beta_3 Expt_pwr_{it} + \beta_4 INST_{it} + \beta_5 Strct_pwr_{it} * INST_{it} + \beta_6 Own_pwr_{it} * INST_{it} + \beta_7 Expt_pwr_{it} * INST_{it} + \beta_8 CG.efficiency_{it} + \beta_9 SIZE_{it} + \beta_{10} SGR_{it} + \beta_{11} Age_{it} + \beta_{12} LEV_{it} + \beta_{13} ROA_{it} + \beta_{14} z-score_{it} + \beta_{15} Big4_{it} + \epsilon_{it}$$

Model (3) is formed to test the hypothesis (H3) related to the moderate effect of controlling shareholders (*CS*) on the relationship between CEO power proxies (*Strct_pwr*, *Own_pwr*, and *Expt_pwr*) as follows:

Model (3)

$$EQ_{it} = \beta_0 + \beta_1 Strct_pwr_{it} + \beta_2 Own_pwr_{it} + \beta_3 Expt_pwr_{it} + \beta_4 CS_{it} + \beta_5 Strct_pwr_{it} * CS_{it} + \beta_6 Own_pwr_{it} * CS_{it} + \beta_7 Expt_pwr_{it} * CS_{it} + \beta_8 CG.efficiency_{it} + \beta_9 SIZE_{it} + \beta_{10} SGR_{it} + \beta_{11} Age_{it} + \beta_{12} LEV_{it} + \beta_{13} ROA_{it} + \beta_{14} z-score_{it} + \beta_{15} Big4_{it} + \epsilon_{it}$$

The definitions of model symbols and their corresponding measurements are presented in Table (2).

4. Empirical Results and Discussions

This section presents the findings of the empirical study and the testing of hypotheses using a range of statistical analyses. Study results are also interpreted in this section.

4.1. Descriptive Analysis

Table (3) shows descriptive statistics of study sample variables characteristics as follows:

- The mean values of the earnings quality indicators, *AQ*, *Persist*, *Predict*, and *Smooth*, are 0.176, 0.156, 0.489, and 0.865, respectively, with StdDev of 0.447, 0.424, 0.159, and 0.851, showing that the earnings quality indicators are distinct. The Min and Max show that the earnings quality of listed firms highly varies across firms.
- The mean values of the CEO power indicators, *Own_pwr*, *Expt_pwr*, and *pwr_index*, are 0.263, 1.682, and 1.173, respectively, with StdDev

of 0.278, 0.939, and 0.564, showing that the CEO power indicators are distinct and align with previous studies. It also indicates that the level of CEO power of listed firms highly varies across firms.

Table (3): Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
<i>AQ</i>	220	0.176	0.447	0.01	1.594
<i>Persist</i>	220	0.156	0.424	-0.664	1.054
<i>Predict</i>	220	0.489	0.159	0.131	0.867
<i>Smooth</i>	220	0.865	0.851	0.042	3.8
<i>Own_pwr</i>	220	0.263	0.278	0	0.801
<i>Expt_pwr</i>	220	1.682	0.939	0	3.219
<i>INST</i>	220	0.526	0.276	0	0.971
<i>CS</i>	220	-0.979	0.626	-2.455	2.987
<i>CG.efficiency</i>	220	0.192	0.274	0	1
<i>SIZE</i>	220	21.964	1.501	18.834	25.656
<i>SGR</i>	220	0.216	0.809	-6.099	5.013
<i>Age</i>	220	2.745	0.751	0	3.689
<i>LEV</i>	220	0.553	0.189	0.143	1.064
<i>ROA</i>	220	0.05	0.077	-0.174	0.296
<i>Z-score</i>	220	2.515	1.63	0.222	8.449
<i>Dummy variables</i>					
	<i>Dummy</i>	<i>Freq.</i>	<i>Ratio</i>		
<i>Strct_pwr</i>	Coded 0	86	39%		
	Coded 1	134	61%		
<i>Big4</i>	Coded 0	84	38%		
	Coded 1	136	62%		

- Turning to control variables, the mean corporate governance efficiency (CG.efficiency) is 0.192 with a StdDev of 0.274, indicating a low CG.efficiency level across sample firms.
- The study sample's financial leverage (LEV) ranges from 0.143 to 0.864, with a mean of 0.553 and a StdDev of 0.189. These values suggest that, on average, the study sample has a high level of indebtedness.
- The z-score predicts corporate insolvency. Z-score ranges from 0.222 to 8.449 with a mean of 2.515 and a StdDev of 1.63, demonstrating significant differences among study sample firms. Higher scores reduce failure. A number below 1.23 (1.1 for non-manufacturing) indicates an

increased risk of failure, while a value closer to 2.9 (2.6 for non-manufacturing) suggests a lower probability.

- Sales growth (SGR) for the sample firms ranges from -6.099 to 5.013, with a mean of 0.216 and a StdDev of 0.809, showing considerable disparities between sample firms.
- The sample data's ROA ranges from -0.164 to 0.296, averaging 0.048. This measure indicates sample accounting performance. Firm size (SIZE) ranges from 18.834 to 25.656, with a mean of 22.088. Large enterprises dominate the sample.
- It shows that 61% of the study sample have CEO structural power (Strct_pwr), and 62% is one of the big4 firms or accountability audits their financial reports.

4.2. Multicollinearity Diagnostics

The Variance Inflation Factor (VIF) test detects multicollinearity among the study's independent variables. Multicollinearity can cause imprecise regression coefficients, statistical significance failure, fluctuating coefficient signs, and suboptimal models (Asteriou & Hall, 2016).

Table (4): Results of Collinearity Statistics

	VIF	Tolerance = 1/VIF
<i>Strct_pwr</i>	1.51	0.662
<i>Own_pwr</i>	1.148	0.871
<i>Expt_pwr</i>	1.288	0.776
<i>CG.efficiency</i>	1.439	0.695
<i>SIZE</i>	1.939	0.516
<i>SGR</i>	1.112	0.899
<i>Age</i>	1.714	0.583
<i>LEV</i>	2.618	0.382
<i>ROA</i>	3.346	0.299
<i>Z-score</i>	3.739	0.267
<i>Big4</i>	1.601	0.625
<i>INST</i>	5.668	0.176
<i>CS</i>	4.75	0.211

Table (4) summarises collinearity diagnostics for all variables included in the study models. All VIF values below 10 indicate no multicollinearity among independent variables. All variable tolerance values are more than 0.10, meaning no multicollinearity.

4.3. Regression Analysis - Tests of Hypotheses

Multivariate regression analysis for a panel data model was used to test study hypotheses. Three preliminary tests were performed to find the best statistical analysis methods as follows:

Jarque–Bera test: The Jarque-Bera test assesses the skewness and kurtosis of the sample data to ascertain their adherence to a normal distribution. If the p-value of the Jarque-Bera test exceeds a 5% significance level, the data exhibit skewness and excess kurtosis and can be considered to follow a normal distribution and vice versa.

Wooldridge test: Wooldridge's (2002) panel data test is robust due to its ability to accommodate heterogeneous individual effects with fewer assumptions. Both fixed and random effects estimators assume the absence of serial correlation. If the p-value of the Wooldridge test exceeds 0.05, it suggests there is no evidence of autocorrelation impacting the accuracy of the study model and vice versa.

Table (5): Results of the Regression Validity Tests

		Model ₁	Model _r	Model _r
Jarque–Bera test	χ^2	237.92	76.83	476.83
	p-value	0.000	0.006	0.011
	Result	Sample data skewness and kurtosis do not match the normal distribution.		
Wooldridge Test	F-test	427.22	238.82	325.98
	p-value	0.000	0.000	0.000
	Result	Presence of autocorrelation of error terms		
White's Test	χ^2	173/93	159.55	182.81
	p-value	0.001	0.000	0.045
	Result	Heteroskedasticity of the variance error term		

White test: The White test is used to assess the presence of heteroscedastic errors in the regression analysis. Like the Breusch-Pagan test, the White test investigates the potential non-linear impact of the independent variable on error variance. If the p-value of the test is more than 0.05, it suggests that no heteroskedasticity issues are present in the study models and vice versa.

Table (5) results about regression validity tests demonstrate that:

- The p-value of the Jarque-Bera test is less than 0.05 for all study models, indicating that the model error skewness and kurtosis do not match a normal distribution.
- The p-value of Wooldridge is less than 0.05 for all study models, implying that the null hypothesis is not rejected, suggesting evidence of serial correlation in the residuals. Thus, OLS coefficients are biased, inconsistent, and inefficient (Yaqub et al., 2015).
- The p-value of the White test is less than 0.05 for all study models, implying heteroskedasticity of the variance error term. Therefore, coefficient and t-value standard errors are unlikely to be accurate.

Based on Table (5) results, the study uses Feasible Generalized Least Squares (FGLS) on the Stata/IC 15 statistical program. FGLS is one of the methods of standard statistical analysis for panel data. The FGLS model is preferred and distinguished from traditional estimation methods, such as the OLS and maximum likelihood methods, as FGLS does not require a normal data distribution. Further, FGLS is more appropriate than the least squares (OLS) method estimators for heteroskedasticity and autocorrelation errors in the panel data (Wooldridge, 2002; Yaqub et al., 2015; Ghaleb et al., 2022), which is the case in this study, increasing the models' efficiency.

4.3.1. Testing Hypothesis (H1)

This section explains the empirical results of the regression analysis and their interpretations. Model (1) tests the hypothesis (H1) related to the effect of CEO structural power (*Struct_pwr*), CEO ownership power (*Own_pwr*), and CEO expert power (*Expt_pwr*) on earnings quality proxies (*AQ*, *Persist*, *Predict*, and *Smooth*) as follows:

Model (1)

$$EQ_{it} = \beta_0 + \beta_1 Strct_pwr_{it} + \beta_2 Own_pwr_{it} + \beta_3 Expt_pwr_{it} + \beta_4 CG.efficiency_{it} + \beta_5 SIZE_{it} + \beta_6 SGR_{it} + \beta_7 Age_{it} + \beta_8 LEV_{it} + \beta_9 ROA_{it} + \beta_{10} z-score_{it} + \beta_{11} Big4_{it} + \epsilon_{it}$$

This study replicated the empirical analysis by replacing Model (1)'s dependent variable (EQ_{it}) with one of the earnings quality proxies (AQ , $Persist$, $Predict$, and $Smooth$). Table (6) presents the Wald tests (χ^2) results on the model (1) using FGLS regression. The findings show that the model is statistically significant at the 0.01 significance level, suggesting that the regression model is accepted.

At a 5% significance level, CEO structure power ($Strct_pwr$) has a positive significant influence on earnings quality indicators of accrual quality (AQ) and earnings persistence ($Persist$). However, it is insignificant with predictability ($Predict$) and income smoothing ($Smooth$). The findings demonstrate that increasing CEO structural power increases accrual quality and earnings persistence. The results indicate that the hypothesis (H1a) has been rejected. Such findings support Muttakin et al. (2017), Tee (2019), and Bouaziz et al. (2020) but contradict Koo & Kim (2019), Florackis & Sainani, 2021, Shiah-Hou (2021), and Alves (2023). This finding predicts that imposing entrenchment restrictions will reduce CEOs' concerns about their career future (Stein, 2003). As a result, entrenched CEOs are less inclined to conceal weak performance and more likely to provide transparent information. High CEO structural power increases the probability of achieving market experts' forecasts (Mande & Son. 2012).

The findings also show that CEO ownership power (Own_pwr) has a positive influence on accrual quality (AQ), earnings persistence ($Persist$), and predictability ($Predict$) at a 1% significance level. It is insignificant with income smoothing ($Smooth$). Such results indicate that no horizontal agency problems exist arising from conflicts of interest between the controlling and minority shareholders, as ownership power lowers agency conflicts between managers and stockholders, rejecting the hypothesis (H1b). According to the transparency theory, CEO ownership reduces opportunistic manipulation of discretionary accruals by improving earnings quality (Warfield et al., 1995).

This finding is consistent with Shiah-Hou (2021) but contradicts Hemdan et al. (2021).

Table (6): CEO Power and Earnings Quality (FGLS Regression)

	Earnings Quality Proxies			
	<i>AQ</i>	<i>Persist</i>	<i>Predict</i>	<i>Smooth</i>
<i>Strct_pwr</i>	0.108*** (0.000)	0.233** (0.021)	0.001 (0.835)	0.108 (0.107)
<i>Own_pwr</i>	0.121*** (0.001)	0.228*** (0.000)	0.080*** (0.000)	0.141 (0.429)
<i>Expt_pwr</i>	0.032 (0.859)	-0.122*** (0.000)	-0.073*** (0.006)	0.044 (0.239)
<i>CG.efficiency</i>	0.006 (0.152)	0.059** (0.013)	0.079** (0.036)	0.078 (0.682)
<i>SIZE</i>	0.206*** (0.000)	0.066*** (0.000)	-0.003 (0.242)	0.031 (0.356)
<i>SGR</i>	0.320 (0.631)	-0.002 (0.616)	0.042 (0.843)	0.011 (0.907)
<i>Age</i>	0.012 (0.943)	-0.064*** (0.000)	-0.036* (0.065)	0.022 (0.533)
<i>LEV</i>	-0.134** (0.040)	-0.097* (0.058)	0.004 (0.963)	0.236 (0.593)
<i>ROA</i>	0.029 (0.242)	-0.481*** (0.000)	-0.006 (0.757)	0.331 (0.894)
<i>Z-score</i>	-0.004 (0.110)	0.219*** (0.007)	0.084*** (0.000)	0.033 (0.365)
<i>Big4</i>	-0.035*** (0.000)	-0.112*** (0.000)	-0.113** (0.025)	-0.036*** (0.001)
<i>Constant</i>	0.247*** (0.000)	-1.189*** (0.000)	0.567*** (0.000)	0.808* (0.092)
Model Summary				
Obs.	220	220	220	220
Wald Chi2	156.262	193.279	128.309	26.97
P-value	0.000	0.000	0.000	0.000
*** p<.01, ** p<.05, * p<.1				

Moreover, the results indicate that CEO expert power (*Expt_pwr*) has a significant negative effect on earnings persistence (*Persist*) and predictability (*Predict*) at a 1% significance level. Accrual quality (*AQ*) and income smoothing (*Smooth*) are insignificant. These findings support the hypothesis (H1c). Such results suggest that CEOs' functional expertise

allows them to exercise management autocracy and decision-making autonomy (Finkelstein, 1992; Itunbaş et al., 2018). Longer-tenured and more knowledgeable CEOs help control a firm's operational strategies, create strong relationships with senior executives, and control internal monitoring mechanisms (Darouichi et al., 2021), which can increase the likelihood of earnings manipulation (Finkelstein, 1992; Hsieh et al., 2018).

For control variables, results demonstrate a significant positive impact of the *z-score* and *CG.efficiency* on the earnings quality indicators (*Persist* and *Predict*) at a 1% significance level. The results indicate that firms with solid financial positions are more prone to have earnings quality. Further, as expected, corporate governance efficiency can prevent power abuses and ensure the CEO is in the firm's interest.

Moreover, financial leverage (*LEV*) negatively influences *AQ* and *Persist*; such findings support the debt covenant hypothesis in the positive accounting theory. Managers in high-leverage firms shift future incomes to the current period to increase net income and minimize technical problems to avoid debt covenant violations (Watts & Zimmerman, 1978, 1986). Likewise, firm size (*SIZE*) positively affects earnings quality proxies (*AQ* and *Persist*). These findings support the political costs hypothesis in positive accounting theory, as big-size firms are less likely to use accounting discretion to manage earnings as political costs rise (Watts & Zimmerman, 1978, 1986).

The results also show that Big4 significantly negatively influences the four earnings quality proxies (*AQ*, *Persist*, *Predict*, and *Smooth*). *ROA* and *Age* negatively affect earnings persistence (*Persist*) and predictability (*Predict*) at 5%.

Based on Table (6), regression models for hypothesis (H1) can be formed to show the influence of CEO structural power (*Strct_pwr*), CEO ownership power (*Own_pwr*), and CEO expert power (*Expt_pwr*) on earnings quality attributes in the presence of control variables Model1 (a:d) as follows:

Model₁ (a)

$$AQ_{it} = 0.247 + 0.108 \text{Strct_pwr}_{it} + 0.121 \text{Own_pwr}_{it} + 0.006 \text{CG.efficiency}_{it} + 0.206 \text{SIZE}_{it} - 0.034 \text{LEV}_{it} - 0.035 \text{Big4}_{it}$$

Model₁ (b)

$$Persist_{it} = -1.189 + 0.233 Strct_pwr_{it} + 0.228 Own_pwr_{it} - 0.122Expt_pwr_{it} + 0.059CG.efficiency_{it} + 0.066SIZE_{it} - 0.064Age_{it} - 0.097 LEV_{it} - 0.481 ROA_{it} + 0.219z-score_{it} - 0.112Big4_{it}$$

Model₁ (c)

$$Predict_{it} = 0.567 + 0.080 Own_pwr_{it} - 0.073Expt_pwr_{it} + 0.079CG.efficiency_{it} + 0.036 Age_{it} + 0.084 z-score_{it} - 0.113 Big4_{it}$$

Model₁ (d)

$$Smooth_{it} = 0.808 - 0.036Big4_{it}$$

4.3.2. Testing Hypothesis (H2)

Model (2) is formed to test the hypothesis (H2) related to the moderate influence of institutional ownership (*INST*) on the relationship between CEO power proxies (*Strct_pwr*, *Own_pwr*, and *Expt_pwr*) and earnings quality proxies (*AQ*, *Persist*, *Predict*, and *Smooth*) as follows:

Model (2)

$$EQ_{it} = \beta_0 + \beta_1 Strct_pwr_{it} + \beta_2 Own_pwr_{it} + \beta_3 Expt_pwr_{it} + \beta_4 INST_{it} + \beta_5 Strct_pwr_{it} * INST_{it} + \beta_6 Own_pwr_{it} * INST_{it} + \beta_7 Expt_pwr_{it} * INST_{it} + \beta_8 CG.efficiency_{it} + \beta_9 SIZE_{it} + \beta_{10} SGR_{it} + \beta_{11} Age_{it} + \beta_{12} LEV_{it} + \beta_{13} ROA_{it} + \beta_{14} z-score_{it} + \beta_{15} Big4_{it} + \epsilon_{it}$$

The empirical analysis is replicated by replacing the dependent variable in Model 2 with one of the earnings quality proxies: *AQ*, *Persist*, *Predict*, and *Smooth*. Table (7) presents the Wald tests (Chi2) results using FGLS regression. The findings show that the model is statistically significant at the 0.01 level, suggesting that the regression model is accepted.

Results in Table (7) show that institutional ownership (*INST*) significantly negatively impacts earnings quality indicators (*Persist* and *Smooth*) in the Egyptian market at 0.01. Table (7) includes the interaction association between the CEO power dimension (*Strct_pwr*, *Own_pwr*, *Expt_pwr*) and institutional ownership (*INST*) to observe the moderating role of institutional ownership. The interaction association of *Strct_pwr* and institutional ownership (*Strct_pwr*INST*) remained positive on *Persist* and changed from a significant positive to insignificant on *AQ*. At the same time, it changed from insignificant to significant positive with *Predict* ($\beta = 0.154$ & $p < 0.1$). Such results indicate that the interaction effect of institutional

ownership reduces the positive impact of *Strct_pwr* on the earnings quality indicators of *AQ*; it also enhances the effects of *Strct_pwr* on the earnings quality indicators of *Persist* and *Predict*.

Table (7): Institutional Ownership, CEO Power, and Earnings Quality (FGLS Regression)

	<i>AQ</i>	<i>Persist</i>	<i>Predict</i>	<i>Smooth</i>
<i>INST</i>	-0.005 (0.812)	-0.490*** (0.009)	0.032 (0.997)	-0.352*** (0.004)
<i>Strct_pwr</i>	0.024* (0.077)	0.183*** (0.000)	0.018** (0.011)	0.049 (0.465)
<i>Own_pwr</i>	-0.001 (0.959)	-0.403*** (0.008)	-0.117*** (0.000)	-0.446*** (0.003)
<i>Expt_pwr</i>	0.002 (0.833)	0.050*** (0.002)	0.021** (0.038)	-0.082** (0.021)
<i>Strct_pwr*INST</i>	0.019 (0.252)	0.485*** (0.000)	0.154*** (0.000)	0.058 (0.590)
<i>Own_pwr*INST</i>	-0.046 (0.265)	0.958*** (0.000)	0.105*** (0.000)	1.157*** (0.000)
<i>Expt_pwr*INST</i>	-0.002 (0.824)	0.131*** (0.002)	0.118*** (0.008)	0.185*** (0.004)
<i>CG.efficiency</i>	0.089 (0.243)	0.129*** (0.000)	0.097* (0.092)	0.052 (0.201)
<i>SIZE</i>	-0.047*** (0.006)	0.180*** (0.000)	0.086** (0.027)	0.029* (0.051)
<i>SGR</i>	0.043 (0.674)	0.003 (0.598)	0.001 (0.464)	0.001 (0.860)
<i>Age</i>	-0.201 (0.678)	-0.102*** (0.002)	0.009** (0.026)	-0.027 (0.341)
<i>LEV</i>	-0.021 (0.322)	0.215*** (0.003)	0.028*** (0.004)	0.072 (0.571)
<i>ROA</i>	0.107 (0.866)	-0.412*** (0.003)	-0.013 (0.487)	-0.085 (0.694)
<i>Z-score</i>	0.038 (0.683)	0.060 (0.780)	0.108*** (0.000)	0.022 (0.159)
<i>Big4</i>	-0.050*** (0.000)	0.054*** (0.003)	-0.025*** (0.000)	-0.101*** (0.009)
<i>Constant</i>	0.266*** (0.000)	-0.951*** (0.000)	0.358*** (0.000)	0.165 (0.572)
Model Summary				
Obs.	220	220	220	220
Wald chi2	155.939	409.711	476.690	92.530
p-value	0.000	0.000	0.000	0.000
*** p<.01, ** p<.05, * p<.1				

The interaction association between *Own_pwr* and institutional ownership (*Own_pwr*INST*) remains significantly positive with *Persist* and *Predict*. It becomes insignificant with *AQ* and changed from insignificant positive to significant positive ($\beta= 1.157$ & $p<0.01$) with *Smooth*. Such results indicate that the interaction effect of institutional ownership reduces the positive impact of *Own_pwr* on the earnings quality indicators of *AQ*; it also enhances the effects of *Own_pwr* on the earnings quality indicators of *Persist*, *Predict*, and *Smooth*.

Moreover, the findings for the interaction association between expert power and institutional ownership (*Expt_pwr*INST*) changed the negative effect of expert power (*Expt_pwr*) on earnings quality indicators (*Persist* and *Predict*) to a significant positive. It also changed from insignificant positive to significant positive ($\beta= 0.185$ & $p<0.01$) with *Smooth*. Such results support Hypothesis (H2) that institutional ownership statistically impacts CEO power and earnings quality association. The results suggest that institutional ownership (*INST*) as an individual variable significantly negatively impacts earnings quality indicators (*Persist* and *Smooth*). However, it enhances the impact of CEO power indicators (*Strct_pwr*, *Own_pwr*) on earnings quality indicators and transforms the negative effect of CEO expert power (*Expt_pwr*) on earnings quality indicators into a positive one. These results are consistent with the findings of Hessayri & Saihi (2015), Nagata & Nguyen (2017), and Zhong et al. (2017) that institutional investors enhance earnings quality and mitigate earnings management practices.

Based on Table (7), regression models for hypothesis (H2) can be formed to show the moderate effect of institutional ownership (*INST*) on the relationship between CEO power proxies and earnings quality proxies (*AQ*, *Persist*, *Predict*, and *Smooth*), Model₂ (a:d), as follows:

Model₂ (a)

$$AQ_{it} = 266 + 0.024Strct_pwr_{it} - 0.047 SIZE_{it} - 0.050Big4_{it}$$

Model₂ (b)

$$Persist_{it} = -0.951 + 0.183 Strct_pwr_{it} - 0.403 Own_pwr_{it} + 0.050 Expt_pwr_{it} - 0.490 INST_{it} + 0.485 Strct_pwr_{it}*INST_{it} + 0.958 Own_pwr_{it}*INST_{it} + 0.131 Expt_pwr_{it}*INST_{it} + 0.129 CG.efficiency_{it} + 0.180 SIZE_{it} - 0.102 Age_{it} + 0.215 LEV_{it} - 0.412 ROA_{it} + 0.054 Big4_{it}$$

Model₂ (c)

$$\begin{aligned}
 Predict_{it} = & 0.358 + 0.018 Strct_pwr_{it} - 0.117 Own_pwr_{it} + 0.021 Expt_pwr_{it} \\
 & 0.154 Strct_pwr_{it} * INST_{it} + 0.105 Own_pwr_{it} * INST_{it} + 0.118 \\
 & Expt_pwr_{it} * INST_{it} + 0.097 CG.efficiency_{it} + 0.086 SIZE_{it} + 0.009 Age_{it} + \\
 & 0.028 LEV_{it} + 0.108 z-score_{it} - 0.025 Big4_{it}
 \end{aligned}$$

Model₂ (d)

$$\begin{aligned}
 Smooth_{it} = & 0.165 - 0.446 Own_pwr_{it} - 0.082 Expt_pwr_{it} - 0.352 INST_{it} + \\
 & 1.157 Own_pwr_{it} * INST_{it} + 0.185 Expt_pwr_{it} * INST_{it} + 0.029 SIZE_{it} - 0.101 \\
 & Big4_{it}
 \end{aligned}$$

4.3.3. Testing Hypothesis (H3)

Model (3) is formed to test the hypothesis (H3) related to the moderate effect of the controlling shareholder (CS) on the relationship between CEO power proxies (*Strct_pwr*, *Own_pwr*, and *Expt_pwr*) and earnings quality proxies (*AQ*, *Persist*, *Predict*, and *Smooth*) as follows:

Model (3)

$$\begin{aligned}
 EQ_{it} = & \beta_0 + \beta_1 Strct_pwr_{it} + \beta_2 Own_pwr_{it} + \beta_3 Expt_pwr_{it} + \beta_4 CS_{it} + \beta_5 \\
 & Strct_pwr_{it} * CS_{it} + \beta_6 Own_pwr_{it} * CS_{it} + \beta_7 Expt_pwr_{it} * CS_{it} + \beta_8 \\
 & CG.efficiency_{it} + \beta_9 SIZE_{it} + \beta_{10} SGR_{it} + \beta_{11} Age_{it} + \beta_{12} LEV_{it} + \beta_{13} ROA_{it} \\
 & + \beta_{14} z-score_{it} + \beta_{15} Big4_{it} + \epsilon_{it}
 \end{aligned}$$

The empirical analysis is replicated by replacing the dependent variable in Model 3 with one of the earnings quality proxies: *AQ*, *Persist*, *Predict*, and *Smooth*. Table (8) presents the Wald tests (Chi2) results on model 3 using FGLS regression. The findings show that the model is statistically significant at the 0.01 significance level, suggesting that the regression model is accepted.

Results in Table (8) show that the controlling shareholder (CS) significantly negatively impacts earnings quality indicators (*Persist* and *Smooth*) in the Egyptian market at a 0.05 significance level. Table (8) includes the interaction association between the CEO power dimension (*Strct_pwr*, *Own_pwr*, *Expt_pwr*) and the controlling shareholder (CS) to observe the moderating role of the controlling shareholder. The interaction association of *Strct_pwr* and the controlling shareholders (*Strct_pwr*CS*) changed to an insignificant impact on *AQ*, *Persist*, and *Predict*. At the same time, it changed from insignificant to significant positive with *Smooth* ($\beta =$

0.174 & $p < 0.1$). These results indicate that the controlling shareholder (CS) reduces the positive impact of structure power (*Strct_pwr*) on indicators of earnings quality.

Table (8): Controlling Shareholder, CEO Power and Earnings Quality (FGLS Regression)

	<i>AQ</i>	<i>Persist</i>	<i>Predict</i>	<i>Smooth</i>
<i>CS</i>	0.019 (0.441)	-0.078*** (0.005)	-0.075 (0.248)	-0.091** (0.023)
<i>Strct_pwr</i>	0.048 (0.460)	0.047* (0.093)	0.111 (0.104)	0.160*** (0.004)
<i>Own_pwr</i>	0.020 (0.403)	0.490*** (0.000)	0.037*** (0.009)	0.621*** (0.000)
<i>Expt_pwr</i>	0.002 (0.720)	-0.024* (0.050)	-0.004 (0.203)	0.162** (0.020)
<i>Strct_pwr*CS</i>	0.002 (0.860)	0.014 (0.588)	0.003 (0.649)	0.174* (0.058)
<i>Own_pwr*CS</i>	0.084 (0.561)	0.337*** (0.000)	0.045*** (0.000)	0.594*** (0.000)
<i>Expt_pwr*CS</i>	-0.006 (0.403)	-0.005 (0.628)	-0.001 (0.600)	0.028 (0.124)
<i>CG.Effecaincy</i>	0.005 (0.545)	0.008 (0.750)	0.312*** (0.006)	0.020 (0.442)
<i>SIZE</i>	-0.087** (0.041)	0.047*** (0.000)	-0.002 (0.489)	-0.040*** (0.000)
<i>SGR</i>	0.001 (0.799)	-0.001 (0.807)	0.001 (0.190)	0.001 (0.922)
<i>Age</i>	0.001 (0.779)	-0.154*** (0.000)	0.003 (0.359)	0.002 (0.917)
<i>LEV</i>	-0.021 (0.461)	-0.225*** (0.000)	0.017* (0.076)	0.151 (0.110)
<i>ROA</i>	0.021 (0.649)	-0.092 (0.255)	-0.009 (0.621)	0.035 (0.843)
<i>Z-score</i>	-0.002 (0.673)	-0.005 (0.506)	0.104*** (0.006)	0.016 (0.190)
<i>Big4</i>	-0.131** (0.036)	0.162*** (0.000)	-0.098 (0.157)	-0.118*** (0.001)
<i>Constant</i>	0.234*** (0.006)	-0.773*** (0.000)	0.537*** (0.000)	1.203*** (0.000)
Model Summary				
Obs	220	220	220	220
Wald Chi2	37.902	234.565	492.639	241.342
P-value	0.000	0.000	0.000	0.000
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$				

The interaction association between *Own_pwr* and the controlling shareholder (*Own_pwr*CS*) remains positive but becomes insignificant with *AQ*. It is changed from insignificant positive to significant positive ($\beta=0.594$ & $p<0.01$) with *Smooth*. Such results indicate that the interaction effect of controlling shareholders reduces the positive impact of *Own_pwr* on the earnings quality indicators of *AQ*; it also enhances the effects of *Own_pwr* on the earnings quality indicators of *Persist*, *Predict*, and *Smooth*.

Moreover, the findings for the interaction association between expert power and the controlling shareholder (*Expt_pwr*CS*) mitigate the negative effect of expert power (*Expt_pwr*) on earnings quality indicators (*Persist* and *Predict*). Such results support Hypothesis (H3) that the controlling shareholder statistically impacts the CEO power and earnings quality relationship.

The results suggest that the controlling shareholder (CS) as an individual variable significantly negatively impacts earnings quality indicators (*Persist* and *Smooth*). It reduces the positive impact of structure power (*Strct_pwr*) earnings quality indicators. It also enhances the effects of ownership power *Own_pwr* on the earnings quality indicators of *Persist*, *Predict*, and *Smooth* also mitigates the negative impact of expert power (*Expt_pwr*) on earnings quality indicators (*Persist* and *Predict*). These results can be interpreted as the controlling shareholders reducing the powerful CEO's impact and monitoring enterprises more effectively. The alignment effect argues that the controlling shareholders are less likely to implement opportunistic behavior, lowering earnings quality since it could affect their reputation, wealth, and long-term success. Thus, the controlling shareholders are driven to report higher earnings quality than others (Shleifer & Vishny 1997).

Based on Table (8), regression models for hypothesis (H3) can be formed to show the moderate effect of the controlling shareholder (CS) on the relationship between CEO power proxies and earnings quality proxies (*AQ*, *Persist*, *Predict*, and *Smooth*) in the presence of control variables Model₃ (a:d) as follows:

Model₃ (a)

$$AQ_{it} = 0.234 - 0.087SIZE_{it} - 0.131Big4_{it}$$

Model₃ (b)

$$\text{Persist}_{it} = -0.773 - 0.047 \text{Strct_pwr}_{it} - 0.090 \text{Own_pwr}_{it} - 0.024 \text{Expt_pwr}_{it} - 0.078 \text{CS}_{it} + 0.337 \text{Own_pwr}_{it} * \text{CS}_{it} + 0.047 \text{SIZE}_{it} - 0.154 \text{Age}_{it} - 0.225 \text{LEV}_{it} + 0.162 \text{Big4}_{it}$$

Model₃ (c)

$$\text{Predict}_{it} = 0.537 - 0.037 \text{Own_pwr}_{it} + 0.045 \text{Own_pwr}_{it} * \text{CS}_{it} + 0.312 \text{CG.efficiency}_{it} + 0.017 \text{LEV}_{it} + 0.104 \text{z-score}_{it}$$

Model₃ (d)

$$\text{Smooth}_{it} = 1.203 + 0.160 \text{Strct_pwr}_{it} + 0.621 \text{Own_pwr}_{it} + 0.162 \text{Expt_pwr}_{it} - 0.091 \text{CS}_{it} + 0.172 \text{Strct_pwr}_{it} * \text{CS}_{it} + 0.594 \text{Own_pwr}_{it} * \text{CS}_{it} - 0.040 \text{SIZE}_{it} - 0.118 \text{Big4}_{it}$$

5. Summary and Conclusions

This study explores the impact of CEO power on earnings quality. It also examines how institutional ownership and the controlling shareholder moderate this relationship through the agency theory lens. It also finds out the impact of some firm characteristics on earnings quality. This study utilizes the dataset of non-financial companies listed in the EGX100 index. Specifically, only firms that have complete data for all variables examined in the study are included. The dataset covers 2017 to 2021, representing the most recent information accessible for the research period. The analysis excludes financial enterprises due to their inherent differences from non-financial firms, which may result in incomparable characteristics.

Four accounting-based measures of Francis et al. (2004) (accrual quality, earnings persistence, predictability, and income smoothing) are used as earnings quality proxies. Based on Finkelstein (1992), this study used three resources of CEO power: structural power, ownership power, and expert power. Feasible Generalized Least Squares (FGLS) on the Stata/IC 15 are utilized. FGLS is considered more appropriate for heteroskedasticity and autocorrelation errors in the panel data (Wooldridge, 2002; Yaqub et al., 2015; Kelsie & Shrivastav, 2016), which is the case in this study, increasing the models' efficiency.

Results show that CEO structure power (Strct_pwr) has a positive association with earnings quality indicators of accrual quality (AQ) and earnings persistence (Persist) at a 5% significance level. It is positive but

insignificant with predictability (Predict) and income smoothing (Smooth). The findings demonstrate that an increase in CEO structural power increases earnings quality. The results support Muttakin et al. (2017), Tee (2019), and Bouaziz et al. (2020) but contradict Koo and Kim (2019), Florackis & Sainani, 2021, Shiah-Hou (2021), and Alves (2023). This finding predicts that imposing entrenchment restrictions will reduce CEOs' concerns about their career future (Stein, 2003). As a result, entrenched CEOs are less inclined to conceal weak performance and more likely to provide transparent information. A significant positive association was found between CEO ownership power (Own_pwr) with accrual quality (AQ), earnings persistence (Persist), and predictability (Predict) at a 1% significance level. Such results indicate that no horizontal agency problems exist arising from conflicts of interest between the controlling and minority shareholders, as ownership power lowers agency conflicts between managers and stockholders in the Egyptian market. This finding agrees with Shiah-Hou (2021) and disagrees with Hemdan et al. (2021). CEO expert power (Expt_pwr) is significantly negatively associated with earnings persistence (Persist) and predictability (Predict) at a 1% significance level. These findings support the hypothesis (H1c). Such results can be interpreted as CEOs' functional expertise allowing them to exercise management autocracy and decision-making autonomy (Finkelstein, 1992; Itunbaş et al., 2018).

The results show that institutional ownership (*INST*) and the controlling shareholder (*CS*) significantly negatively impact earnings quality indicators of (Persist and Smooth) in the Egyptian market at 0.01. However, they enhance the impact of CEO power indicators (*Struct_pwr*, *Own_pwr*) on earnings quality indicators. Further, institutional ownership (*INST*) transforms the negative effect of CEO expert power (*Expt_pwr*) on earnings quality indicators into a positive one. At the same time, the controlling shareholder (*CS*) mitigates CEO expert power's negative impact.

The z-score and corporate governance efficiency positively correlate with earnings persistence and predictability at 1%. The results indicate that firms with solid financial positions are more prone to have earnings quality. Further, corporate governance efficiency can prevent power abuses and ensure the CEO benefits the company. Further, firm size positively

influences earnings quality proxies, while financial leverage negatively affects them, supporting positive accounting theory's assumptions of political costs and debt covenant.

The study contributes to the literature as limited attention was paid to the CEO power and earnings quality relationship, thus highlighting the novelty and significance of this study. Further, this study examines the potential moderating influence of the controlling shareholder and institutional ownership on such a relationship that has not been discussed in prior research.

The study recommends changing the negative perception of CEO power. The significant positive relationship between CEO structure and ownership power (Strct_pwr, Own_pwr) and earnings quality indicators demonstrates that CEO power can reduce stress and increase the convergence of managers' and shareholders' interests, thereby improving earnings quality. Another recommendation for investors when allocating resources across companies should be aware that institutional ownership and the controlling shareholder as individual variables negatively affect earnings quality. However, they enhance the CEO power indicators' effects on earnings quality indicators. It is also recommended to encourage firms to apply efficient governance mechanisms, as corporate governance efficiency positively impacts earnings quality.

Future research can focus on the CEO power and earnings quality in financial firms. Moreover, studying the moderating role of corporate governance efficiency on the CEO power and earnings quality relationship is recommended. Correspondingly, the moderate impact of foreign ownership on the CEO power and earnings quality relationship. In addition, the investigation of the effect of CEO power on stock liquidity for firms listed on the Egyptian Stock Exchange. Finally, the impact of ownership concentration on the association between CEO power and the liquidity of stocks in firms listed on the Egyptian Stock Exchange.

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