

CHAPTER 4

RESEARCH HYPOTHESES AND METHODOLOGY

4.1 Introduction

The development of hypotheses and the research methodology is the most important section based on the conceptual framework. Two theories are used in this study. The first is agency theory, which is the main theory used to explain the nature of the relationship between the independent variables and dependent variables. Then political theory was used beside agency theory to elaborate on the effects of the moderator variable between the independent variables and dependent variable. The other purpose of this chapter is also to demonstrate the general approach of the research process.

Thus, this chapter is divided into several sections, as follows. Section 4.2 offers the conceptual framework of the study. Next, Section 4.3 consists of the hypotheses' development regarding the conceptual framework. Section 4.4 illustrates the philosophy of the current study, while the quantitative approach is presented in Section 4.5. After that, Section 4.6 discusses the research design, operational definitions, and measurement of variables. Section 4.7 describes the econometric approach, while the model specifications of this study are defined in Section 4.8. Section 4.9 summarizes the chapter.

4.2 Research Conceptual Framework

The research framework was constructed and developed according to prior studies and CG theories, such as agency theory, which is used as the main theory to explain the

association of CG mechanisms with EM practices. Moreover, the study adopted political theory to discuss the moderating effects of political unrest on the relationship between CG mechanisms and the level of EM practices in Palestinian non-financial listed companies.

Two relationships are explored to achieve the research objectives. The first relationship is shown in Figure 4.1 below in which the agency theory has been used to examine the relationship between the CG mechanisms (BOD characteristics, OS, and AC characteristics) and EM practices. In this study, EM represents the dependent variable, while CG mechanisms represent the independent variables. Firm age, growth, and cash flow from operating activities are representing the control variables.

Figure 4.1 below shows the main model of current research, which examines the relationship between BOD characteristics (size, meetings, independence, nationality diversity, the existence of remuneration and governance committee and CEO-duality), AC characteristics (size, independence, and financial expertise), OS (institutional ownership, ownership concentration, and foreign ownership), and control variables (firm age, growth, and cashflow) and EM.

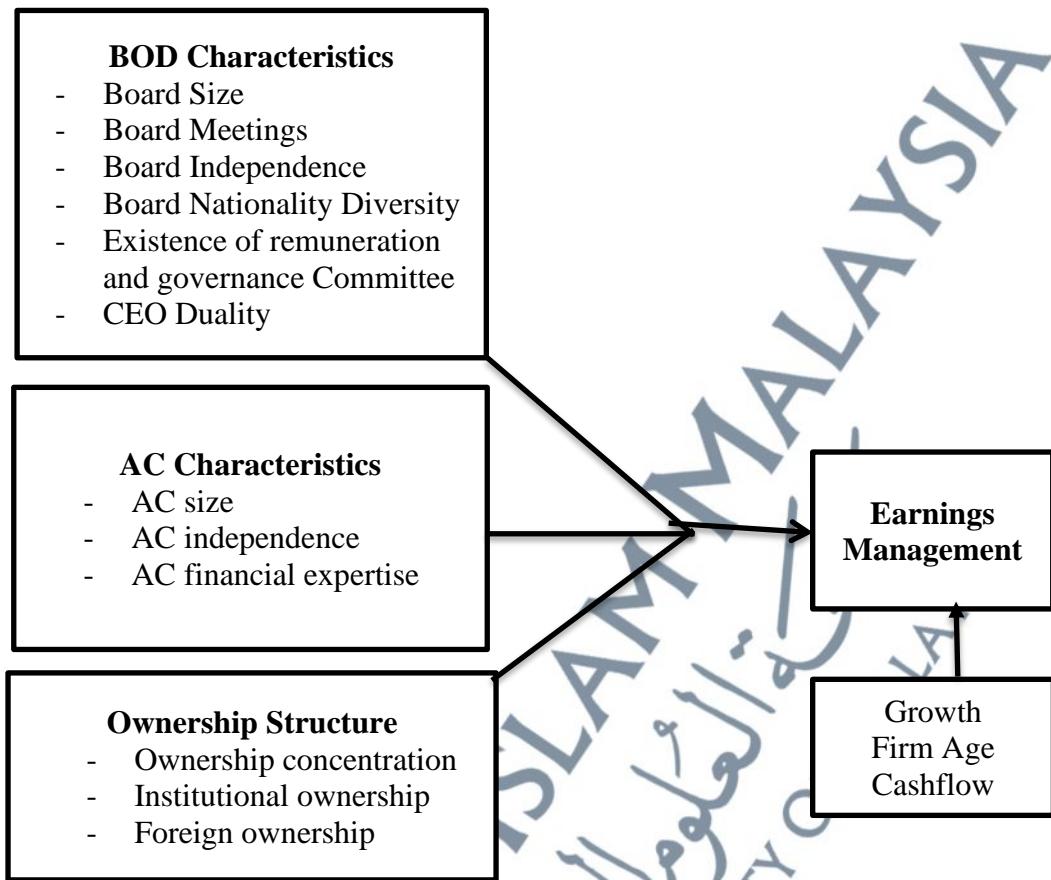


Figure 4.1: The Conceptual Framework of the Main Model

Figure 4.2 shows the moderating effect of the political instability on the relationship between BOD and AC quality and EM practices.

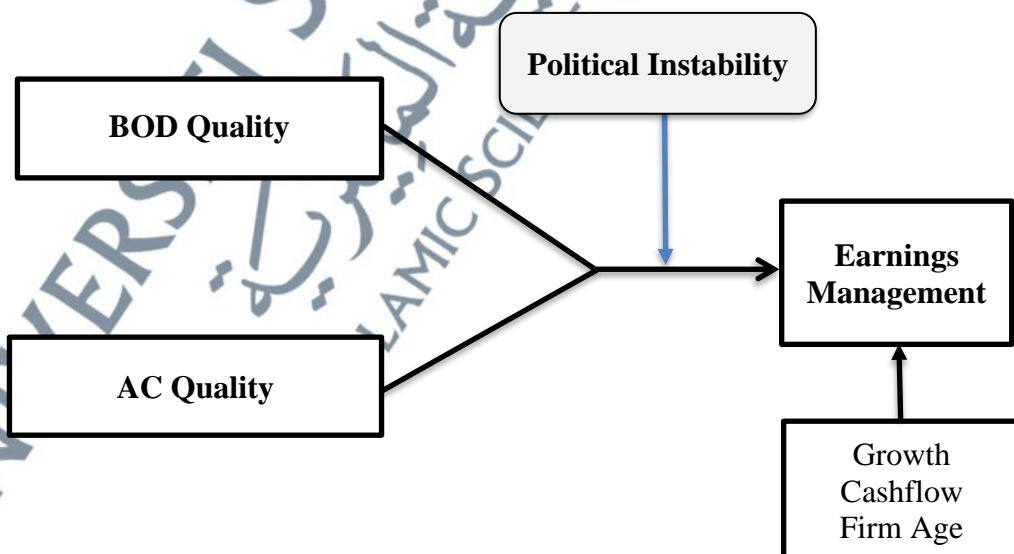


Figure 4.2: The Conceptual Framework of the Moderating Model

To conclude, this study suggested 2 models due to avoid multilinearity problems, used different measurements, and based on prior literature, Abusiam (2015) and Makhlouf (2017). The moderation model has been published in a Scopus journal in March 2021. The composite measure is utilized to make deep and comprehensive understanding of the CG effectiveness and its influence in the constraining or boosting the phenomena of EM practice in Palestine.

4.3 The Development of Hypotheses

Based on the theories mentioned, prior literature, and the PCCG, the hypotheses of this research have been developed, as shown below.

4.3.1 BOD Characteristics

This section is related to the characteristics of BOD, including BOD size, BOD meetings, BOD independence CEO Duality, BOD nationality diversity, and the remunerations and governance committee existence. In this section, the hypotheses will be developed according to agency theory, PCCG, and prior literature related to BOD characteristics and their relationship with EM as follows.

4.3.1.1 BOD Size

Most previous studies have considered the size of the BOD as necessary for managing a company with high efficiency. According to agency theory, a large BOD can lead to difficulty and complexity of coordination and decision-making, leading to reducing BOD effectiveness, thus damaging firm performance (Fama & Jensen, 1983b). Masud et al. (2017) argued that an increase or decrease in the number of BOD members is related to an increase or decrease in agency problems. Therefore, a smaller BOD size

may enhance the BOD oversight function over management, and a larger BOD size leads to more agency problems because it loses control of the company's management. Conversely, the resource dependence theory has suggested that a larger BOD will be more effective in monitoring due to more knowledge, experience, and opinions from different sources (Chaganti et al 1985).

Given the importance of a company's BOD, the size of the BOD has been examined by much CG literature (Gonzalez & Garcia-Meca, 2014). Hence, several previous studies examined the association between BOD size and EM practices, but these studies have obtained different results. Several studies have been found that larger boards are associated with minor EM practices (See, Alves, 2011; Bala, 2015; Ebrahim, 2007; Ghosh, Marra, & Moon, 2010; Habbash, 2010; Xie, Davidson, Dadalt, Davidson & Dadalt, 2003). Conversely, Yermack (1996) has documented that the financial performance of companies was negatively associated with board size. Moreover, Waweru (2018) found that the board size had a positive relationship with the practices of EM. So, a smaller sized board was more effective in comparison with a larger board. According to these arguments, several studies have documented that board size was positively correlated with EM practices (Rahman & Mohamed Ali 2006; Jaggi & Leung 2007).

In sum, BOD size remains one of the most used characteristics of BOD in investigating its relationship with firm performance and EM as well. In some cases, a larger BOD size has been found to enhance the best resources and expertise and restrict a CEO and CFO from practicing opportunistic behaviors contrary to stockholders' interests. In other research, a smaller BOD size was found to maximize the capability of the board to exercise its monitoring roles to improve board performance in a company (Gkliatis, 2014).

According to the perspective of agency theory, Alves (2011) and Ghosh et al. (2010) argued that a larger sized BOD will lead to the reduction of agency problems and will focus more on monitoring management activities. According to PCCG (2009), the board must comprise not less than five members and not more than eleven members. Hassan et al. (2016) found that the number of directors ranged from 5 members to 15, with a mean of about 9 directors for the Palestinian non-financial listed companies. Hence, based on the discussion above of agency theory, this study has posited the following hypothesis:

H01: There is a negative relationship between the size of BOD and EM in Palestinian non-financial listed companies.

4.3.1.2 BOD Frequency of Meetings

Based on the agency theory perspective, the core function of BOD members is to monitor management behaviors and procedures to alleviate agency problems, according to their periodic meetings to discuss a firm's matters (Fama & Jensen, 1983b). As the suggestion of agency theory, a higher number of BOD meetings will lead to less EM practices. Subsequently, Lipton and Lorsch (1992) and Vafeas (1999) have documented that a high frequency of meetings held by the BOD leads to an effective BOD, which can practice its monitoring function more efficiently. The regularity of BOD meetings will extend an opportunity for directors to deal with the primary issues and correct problems that could appear (Basiruddin, 2011).

However, prior literature has produced inconclusive results related to the relationship of the frequency of BOD meetings and EM practices, although most have found that more frequent BOD meetings will lead to the mitigation of EM practices (Almasarwah, 2015; Anglin et al., 2013; Xie et al., 2003). A high number of meetings

held by the BOD annually is considered evidence of good transparency, a good CG situation, and high levels of communications among different management levels (Asmar et al., 2018). Similarly, Basiruddin (2011), Gulzar and Zongjun (2011), and Abbadi et al. (2016) found a positive relationship between the number of BOD meetings and EM practices. However, Ngamchom (2015), who conducted a study in Thailand from 2009 to 2013, found no relation between the number of board meetings and EM.

The PCCG requires the BOD of listed firms to meet regularly to discuss the firms' issues, but the code did not specify the optimal number of meetings. Hassan et al. (2016) found that the frequency of BOD meetings ranged from a minimum of 1 to a maximum of 13 with a mean of about 6 board meetings held by BOD yearly in Palestinian non-financial listed companies on PEX. Based on the discussion above of agency theory, this study hypothesized that:

H02: There is a negative relationship between the number of board meetings and EM in Palestinian non-financial listed companies.

4.3.1.3 BOD Independence

Based on the perception of agency theory, BOD independence refers to the presence of non-executive directors in a company's BODs (Fama & Jensen, 1983; Abed et al., 2011). Several studies have found that companies whose BOD has more non-executive members are effective in monitoring and controlling firms' activities and constrains EM practices (Jaggi & Tsui, 2007; Cornett, Marcus, & Tehranian, 2008). According to agency theory, a high number of independent members serving on a board leads to a better ability of a board to monitor the management effectively (Davidson et al., 2005). Fama (1980) has stated that a high number of insiders on a BOD leads to weaker monitoring of firm performance.

Accordingly, Klein (2002) found a negative relationship between EM practices and the level of independent directors on the board in the United States. Similarly, Xie et al. (2003) found a negative association between the BOD's independence and discretionary accruals. In a study of the United Kingdom, Peasnell et al. (2005) detected a negative association between independent directors on the BOD and earnings manipulation. Also, Niu (2006) conducted a study in Canada from 2001 to 2004. By applying the Kothari et al. (2005) model to detect EM practices, the empirical analysis has found a negative relation between CG mechanisms and the practices of EM. The results of this study revealed that the level of board independence was correlated negatively with the level of EM practices.

Others have studied the impact of outside directors in the BOD in a Western context. For example, in a study of Turkish companies, Türegün (2018) argued that independent members were more effective in detecting manipulation and overseeing executive management. He added that companies with independent non-executive members were less likely to be engaged in EM or report abnormal accruals. In similar results, Idris et al. (2018) provided evidence from Jordanian listed firms that a negative relationship between board independence and the practice of EM. They proposed that a higher percentage of board independence was associated with more effective monitoring to constrain EM. Habbash and Alghamdi (2017) provided evidence from Saudi Arabia that a high number of independent members in the BOD was negatively associated with EM practice significantly.

On the other hand, a few studies have found that there is no statistically significant relationship or positive association between board independence and EM practice (Abed et al., 2012; Hsu & Wen, 2015; Soliman & Ragab, 2013). Similarly, Hsu and Wen (2015) found that the relation between BOD independence and EM was positively

associated based on a sample from Chinese firms listed on Shanghai and Shenzhen Stock Exchange Securities Market. However, Abed et al. (2012) found that independent directors on the board were not significantly related to EM practices in Jordan. An evidence from Egypt presented by Soliman, and Ragab's (2013) documented that there is no significant relationship between board independence and EM.

Good CG requires that a BOD has independent directors. Based on agency theory perspectives, Fama and Jensen (1983) and Fama (1980) argued that a board, which has several independent members, would be more capable in monitoring managers effectively. In other words, independent members have a better ability to constrain EM practices. According to PCCG (2009), the BOD members should not hold any executive positions in the company. Hence, based on the discussion above of agency theory, this study hypothesized that:

H03: There is a negative relationship between board independence and EM in Palestinian non-financial listed companies.

4.3.1.4 BOD Nationality Diversity

So far, few studies have addressed the impact of diversity of nationality (the proportion of foreign members in BOD) on the effectiveness of the BODs and the firms. Accordingly, this current study is the first in Palestine to address the influence of the proportion of foreign members in the BOD on the practices of EM.

Some studies have addressed the nationality diversity of the BOD (See, for example, Du, Jian, & Lai, 2017; Hooghiemstra, Hermes, Oxelheim, & Randøy, 2015; Ibrahim & Hanefah, 2016; Makhlouf et al., 2017). Du et al. (2017) found that foreign directors were associated negatively and significantly with EM in China. Ibrahim and Hanefah (2016) found a positive relationship between foreign directors in the BOD and

the level of CSR disclosure in Jordan. On the other hand, Hooghiemstra et al. (2015) examined the impact of the presence of a foreign BOD member on EM by using a sample of 3,249 firm-year observations representing 586 non-financial listed Nordic companies from 2001–2008. They have found that an increase in foreign directors on the BOD will lead to an extremely higher level of EM practices. Furthermore, they provided preliminary evidence that a variety of knowledge in accounting produced such influence. Their studies indicated that it might not be essential and beneficial to appoint a foreign director to the BOD.

From the agency theory perspective, the greater diversification of a BOD leads to a more considerable improvement in management monitoring functions, because BOD diversification leads to more BOD independence, reducing agency costs (Carter et al., 2007). The resource dependency theory suggested that BOD diversity would provide the board with additional necessary resources such as skills, information, legitimacy, and access to key networks (Odewale, 2016). Therefore, various directors will provide deferent unique information to the management to improve decision making (Ibrahim & Hanefah, 2016). Regarding to the BOD nationality diversity, the resource dependence theory perspective is in the line with the perspective of agency theory. So, the foreigners the BOD might strengthen the role of BOD in reducing agency problems and conflicts. Based on the arguments mentioned above, the following hypothesis is posited, as shown below:

H04: There is a negative relationship between board nationality diversity and EM in Palestinian non-financial listed companies.

4.3.1.5 Presence of Remuneration and Governance Committee

The studies that have addressed the role of the remuneration committee in mitigating EM still very few. Jiamsagul (2007) showed a positive association between the presence of remuneration and nomination committees and firm performance and argued that the existence of this committee might reduce agency problems and increase transparency. Laing and Weir (1999) have argued that the companies with audit, remuneration, and nomination committees perform better than those that do not have them. In other words, Hoitash et al. (2009) argued that board committees could lead to the enhancement of BOD effectiveness. The prior literature has offered evidence that the presence of a remuneration committee can enhance the effectiveness of the BOD.

In the United Kingdom, Habbash (2010) found no association between a remuneration committee and EM practices. In contrast, in Jordan, AbuSiam (2015) found a negative association between the presence of a remuneration committee and EM practices. In terms of Saudi Arabia, Habash (2011) reported that there is an association between remuneration committees and EM practices, but this correlation was insignificant. Likewise, Al-Ghamdi (2012) also found insignificant correlation between remuneration and nomination committee and the magnitude of DAC.

According to PCCG (2009), the BOD should establish a remuneration committee and governance committees to help the BOD to set a remuneration policy. Also, the BOD should form a governance committee for the sake of controlling and monitoring the application of the CG rules. The remunerations committee will play the role of a governance committee in firms in which a governance committee does not exist yet. Thus, consistent with the agency theory perspective and based on the above arguments, the current study argues that the presence of remuneration and governance committees may mitigate EM practice. Thus, the following hypothesis is posited, as shown below:

H05: There is a negative association between the presence of a remuneration and governance committee and EM practices in Palestinian non-financial listed companies.

4.3.1.6 CEO-Duality

In accordance with agency theory, the separation of the position of chairperson of the BOD and the position of CEO is necessary (Olusola & Abiodun, 2013). Agency theory argues that the combination of the role of Chairman and CEO in one individual (CEO Duality) permits this person to dominate the decision-making process and impair the role of BOD in monitoring the chairman as well. Hence, it is difficult to detect the opportunistic behavior of the CEO and whether the Chairman/CEO performs his/her duties independently or serves his/her self-interests (Boonyawat, 2013). Furthermore, CEO Duality decreases the monitoring role efficiency of the BOD and increases a CEO's domination of a board (Jensen, 1993). Accordingly, Rahman and Mohamed Ali (2006) have argued that the CEO and chairperson position must be separated to make CG more effective. They also stated that the authority in the hands of a CEO, the more likely that CEO was to easily engage in the EM practices to achieve personal interests and compensations.

Also, several studies have documented a positive association between CEO duality and the practice of EM (Roodposhti & Chashmi, 2010). For example, Alghamdi (2012) found that EM was higher when the chairperson holds the CEO position simultaneously. Veprauskaite and Adams (2013) conducted a study in the United Kingdom and found that CEO duality negatively affected firm performance in UK firms. The argument was that this could lead managers to practice EM to improve the financial performance of their firms.

Others have studied CEO duality as well. Klein (2002) investigated the relationship between EM and CEO duality in the United States. She found a significant and positive association between CEO duality and EM practices. Soliman and Ragab (2013) found a significant and positive association between CEO duality and EM practices in Egypt. Similarly, Chi et al. (2015) investigated the association of family firms with EM practices in Taiwan. They detected that CEO duality had a positive relation with EM practices. However, Rahman and Mohamed Ali (2006) found no positive association between EM and CEO duality in Malaysian listed companies. In a meta-analysis of 35 studies, García-Meca and Sánchez-Ballesta (2009) found that mixed results between CEO-duality and the practice of EM were due to sampling issues.

The PCCG (2009) recommends that the chairman of the BOD or any other member of the board not serve in any executive function in the firm to achieve more effective monitoring. Thus, consistent with agency theory and based on the arguments above, the current study argues that the separation between CEO and chairman position will mitigate EM. Thus, the following hypothesis is posited:

H06: There is a positive association between CEO Duality and EM in Palestinian non-financial companies listed on PEX.

4.3.2 Audit Committee Characteristics

The BOD plays a pivotal role in monitoring the financial reporting process; however, this role is often assigned to a subcommittee of the BOD, which is AC. Indeed, an AC plays an essential role in the internal CG of public corporations because it monitors the financial reporting process to offer relevant and credible information to the company's stakeholders (Pincus et al., 1989). From the agency theory perspective, the AC is to work as an effective monitoring mechanism, which is dependent upon its

independence from management. The committee should have members with financial expertise, has sufficient directors, and conduct more meetings (Carcello et al., 2006).

The existence of an AC is considered an indicator of higher quality monitoring and may reduce the occurrence of opportunistic behavior and EM practices. Prior studies have shown mixed results concerning the relationship between the AC and EM practices. For example, Lin and Hwang's (2010) meta-analysis found no significant association between the existence of AC and EM practices. However, some argue that the existence of AC provides direct communication between the BOD and the external auditor, thus mitigating the information asymmetries between management and BOD. Some perceive that this leads to higher quality monitoring (Pincus et al., 1989).

The argument is that the existence of an ACs leads the BOD to improve its performance, and investors will gain more confidence in the value of corporate financial statements (Juhmani, 2017). Furthermore, the existence of AC may reduce the EM practices of the managers (Nelson & Devi, 2013). Suprianto (2017) has reported a negative association between the AC and EM practices. This finding is consistent with Inaam and Khamoussi (2016), who found a negative relationship between the existence of AC and EM practices.

In the Palestinian context, Hassan et al. (2016) showed that only 26% of non-financial Palestinian listed firms had an AC. This finding indicates that most of these corporations are still without ACs. They also found that the existence of an AC had a negative and significant impact on firm performance.

According to PCCG (2009), the BOD of the firms listed on the PEX should establish an AC. Thus, consistent with agency theory and based on the arguments above, this study argues that the existence of AC may lead to a mitigate EM practice. Thereby,

the current study will address the AC characteristics (size, independence, and financial expertise).

4.3.2.1 Audit Committee Size

The size of AC is a significant characteristic and has an essential role in a firm. The size of an AC is essential for the sake of composing an effective AC. However, several studies have reported mixed results about the size of the AC and its relation with EM and financial reports quality (See, for example, Al-Najjar, 2011; Ayemere & Elijah, 2015; AbuSiam et al.; 2018; Mohamed M Soliman & Ragab, 2014).

In a study of the United Kingdom, Al-Najjar (2011) has indicated that the larger size of ACs might offer more robust monitoring resources to supervise the top management and increase the quality of financial reports than a smaller AC. Ayemere and Elijah (2015) conducted a study based on a sample of 50 Nigerian listed firms from 2006 to 2013. They reported that AC size constrained EM practices, and they added that a significant inverse relation existed between committee size and EM.

Mohamed et al. (2014) investigated the relationship between EM practices and the effectiveness of AC by using 50 listed companies in the Egyptian Stock Exchange from 2007 to 2010. They found no significant association between the size of ACs and EM (level of DAC. Hence, based on the discussion above of agency theory, this study has posited the following hypothesis:

H07: There is a negative association with AC size and EM in Palestinian non-financial listed companies.

4.3.2.2 Audit Committee Independence

As mentioned in chapter three, AC independence is a crucial characteristic of AC, which several previous studies have used. The independence of an AC usually is associated with the effectiveness of AC (Hamid, Othman, & Rahim, 2015). Moreover, independence could be an essential attribute to increasing the degree of quality of financial reporting (Dimitropoulos & Asteriou 2010; Siagian & Tresnaningsih 2011).

Hamdan et al. (2016) have elaborated on the role of independent members of ACs in industrial listed companies in Jordan. Interestingly, they have found that there was no relationship between earnings quality and AC independence. They claimed that ACs in Jordanian industrial companies are not fully independent. On the other hand, Davidson et al. (2005) reported that non-executive directors on the AC play a critical role in reducing the manipulation behaviors and EM practices.

Several studies have found that more independent AC committee members lead to better control. For example, Crutchley, Jensen, and Marshall (2007) documented that fewer independent members on the AC lead to more accounting fraudulent actions. Xie et al. (2003) reported that the independent AC members play an essential role in constraining financial reporting irregularities. Indeed, several studies have documented the existence of more independent directors in an AC mitigates EM (see, Abbott et al., 2004; Klein, 2002; Mohamed, Soliman & Ragab, 2014). However, other studies have reported that there is no significant association between EM and the independence of AC (e.g., Lin, Li, & Yang, 2006; Rahman & Mohamed Ali, 2006). In this context and consistent with perspectives of agency theory, the current study posits that:

H08: There is a negative association between AC independence and EM in Palestinian non-financial listed companies.

4.3.2.3 Audit Committee Financial Expertise

Accounting or financial expertise is considered an essential characteristic for members of an AC due to its field of work in the firm. Most prior studies have given attention to the financial expertise and knowledge of AC as evidence of committee effectiveness. Zalata, Tauringana, and Tingbani (2018) argued that one of the critical monitoring mechanisms was financial expertise on an AC. They also found a significant relationship between financial expertise and lower EM. Also, a negative association has been found between AC financial expertise and the practices of EM (Ayemere & Elijah, 2015).

Many studies have investigated financial expertise and EM and the quality of financial reporting. Bilal, Chen, and Komal (2018) examined the association between earnings quality and AC financial expertise. They conducted a meta-analysis of 90 studies using a total of 165,529 firm-year observations in the United States. They reported a significant and robust positive association between earnings quality and AC financial expertise.

AbuSiam et al. (2018) provided the most recent evidence of Jordanian industrial firms. They examined the relationship of EM practices with the financial expertise of AC by using a sample of 44 manufacturing companies listed on the ASE 2012 to 2016. They found a negative and significant relationship between the presence of AC financial experts and the practicing of EM.

PCCG (2009) stated that an AC must include at least one financial or accounting expert and added that this financial expert should be a non-executive and independent member. Thereby, the current study posits the following hypothesis.

H09: There is a negative association with AC financial expertise and EM in Palestinian non-financial listed companies.

4.3.3 Ownership Structure

Based on the agency theory perspective, Jensen and Meckling (1976) argued that a high proportion of concentrated ownership could lead to the minimization of agency costs, problems, and divergence between stockholders' interests and managers' interests. The following section addresses three types of OS, including ownership concentration, foreign ownership, and institutional ownership. The hypotheses related to this are developed according to agency theory, PCCG, and prior literature related to OS and its relationship with EM.

4.3.3.1 Ownership Concentration

The concentration of ownership is a measurement of the proportion of ordinary shares held by largest stockholders in a company. Porta et al. (1999) and Hassan et al. (2016) have suggested the ownership concentration may generate a real conflict due to the agency problem that the concentration of ownership creates. A high level of ownership concentration provides a good opportunity for majority stockholders to exploit the firm's resources by ignoring the interests of minority stockholders (Shleifer & Vishny 1986).

Accordingly, the agency theory perspective might be proper in the case of Palestinian companies because the ownership is concentrated in the hands of a few institutional investors, family members and other individuals. Thus, this result does not lend support to agency theory as it states that institutional investors who have substantial ownership can influence agency costs and hence the corporate performance (Hassan et al., 2016). Dwaikat and Queiri (2014) investigated the relationship between the OS and performance of 31 companies listed on PEX from 2008-2012. The results reveal that

ownership concentration was significantly and negatively associated with the financial performance of the firms.

Others have studied this relationship in the context of other countries and stock markets. Fan and Wong (2002) studied East Asian economies of Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, and Thailand. They reported that the concentration of ownership was associated negatively with the quality of earnings. Yunos et al. (2011) found that ownership concentration was associated with the lowering of accounting conservatism in Malaysia. Rahman and Mohamed Ali (2006) offered evidence from Malaysia that board independence was not significantly associated with the practice of EM due to high ownership concentration. On the other hand, Kamardin and Haron (2011) suggested that high ownership concentration in Malaysia may lead to effective monitoring techniques, which ensure the interests of the majority and minority stockholders. Conversely, Guerrero-Villegas et al. (2018) documented that severe conflict between the minority stockholders and the majority stockholders may emerge from concentrated ownership in a study of European firms. Klai and Omri (2011) studied the association between CG mechanisms and the quality of financial reports of companies listed on the Tunis Stock Exchange. They reported that block ownership damages the quality of financial reports.

Abdelkarim and Alawneh (2009) found a negative correlation between the concentration of ownership in Palestinian firm listed and their performance. In a report, PCMA (2015) elaborated that 11% of the total stockholders of listed companies PEX can nominate themselves for membership of the BOD; otherwise, 89% of total stockholders cannot be nominated. This is evidence of the high level of ownership concentration in Palestine.

According to the arguments above and consistent with agency theory, the following hypothesis is posited:

H10: There is a positive relationship between ownership concentration and EM in Palestinian non-financial companies listed on the PEX.

4.3.3.2 Institutional Ownership

Institutional ownership is considered a critical mechanism in controlling management discretion, which, in turn, leads to the mitigation of agency costs and problems (González et al., 2014). An institutional investor plays a vital role in monitoring management behavior. Institutional investors like large stockholders may have more power than small investors to gain benefits by overseeing management (Ping & Wing, 2011; Hassan et al., 2016; Aljifri & Moustafa, 2007). According to Attia, Lassoued, and Attia (2016), institutional investors are efficient in monitoring managers and reduce their manipulation of the accounting numbers presented in financial reports.

Several studies have reported that institutional investors tend to invest their money in firms with more independent directors in the BOD (Al-Jaifi, 2017). Relatedly, Bao and Lewellyn (2017) have argued that institutional investors are more sophisticated and rational stockholders, and, therefore, they will be able to analyze the performance of companies accurately and be better capable of detecting accounting misreporting. According to Hassan et al. (2016), the financial performance of a firm will be affected positively by the high number of shares held by the institutional and, thus, minimizing the agency cost.

Previous studies have had mixed results when investigating the relationship between EM and institutional ownership. For example, Farouk and Bashir (2017) found a negative association between EM practices and institutional ownership in Nigeria.

Accordingly, Almasarwah (2015) conducted a comprehensive study in Jordan and addressed the majority of CG mechanisms and their relation with the level of EM practices. He found a negative relationship between the percentage of institutional ownership and EM practices. Bao and Lewellyn (2017) also found a negative association between institutional ownership and the activity of earnings in a study of 1200 firms in 24 emerging markets. Anwar and Buvanendra (2019) (Anwar & Buvanendra, 2019)(Anwar & Buvanendra, 2019)(Anwar & Buvanendra, 2019)(Anwar & Buvanendra, 2019)(Anwar & Buvanendra, 2019)(Anwar & Buvanendra, 2019)(Anwar & Buvanendra, 2019)(Anwar & Buvanendra, 2019) have presented evidence from Sri Lanka by studying the influence of ownership structure on EM on the non-financial listed companies on CSE; they found that institutional ownerships are effective in mitigating EM activities.

On the other hand, Lemma, Negash, Mlilo, and Luiseged (2018) found a significant and positive relationship between institutional ownership and real EM in a study of non-financial firms in 41 countries around the world for the period 1995–2016. That means the institutional investors may focus on short-term earnings, which, in turn, makes pursue the managers to practice more EM. The current study will address the institutional ownership in Palestine to explore its effects on EM practices.

In fact, there are two types of agency conflicts: type I, which is a conflict between shareholders and managers, and type II, which is a conflict between the majority and minority shareholders. Institutional ownership can strengthen the monitoring on management by minimizing agency conflict which contribute to increasing the reliability of financial reports. According to agency theory perspectives, institutional may minimize agency conflicts between shareholders and manager and consequently

minimize agency problems. From the explanation, the following hypothesis is proposed:

H11: There is a negative relationship between institutional ownership and EM in Palestinian non-financial companies listed on the PEX.

4.3.3.3 Foreign Ownership

Foreign ownership is another factor that prior EM studies have examined. Foreign investors are expected to have different and more experience than local investors. Foreign owners usually have more varied experiences than their local counterparts. Therefore, foreign owners can monitor management behavior more effectively due to their experiences. Subsequently, a high level of foreign ownership leads to the mitigation of agency costs to the lowest level (Hassan et al., 2016).

However, empirical evidence on the association between foreign ownership and EM practices have been mixed. In a study conducted in the Nigerian context, Isa and Farouk (2018) reported that the high foreign ownership proportion would likely constrain the exercise of manipulative practices by managers. Conversely, Farouk and Bashir (2017) found that foreign ownership had a positive and significant influence on EM activities in Nigeria. Simultaneously, Parveen et al. (2016) found that director ownership negatively and significantly influenced the tendencies of manipulation activities of the managers while foreign ownership positively and significantly influenced the tendencies of manipulation activities of managers in Pakistan. An evidence from Sri Lanka presented by Anwar and Buvanendra (2019), found that foreign ownerships are associated positively with EM practices.

In Palestine, foreign owners are very important for the companies listed on the PEX, working under a complicated political situation. Foreign investors provide the

Palestinian stock market with the various experiences and innovative ideas required to maximize the productivity and overall performance of the list firms. Indeed, the PEX performance has significantly developed over the last two decades; however, it still needs to reform fundamental CG matters and comprehensive disclosure (Hassan et al., 2016).

The high degree of ownership concentration in the Palestinian firms has affected the firm performance negatively. Consequently, the Palestinian economy has suffered from a liquidity shortage, which causes a lack of confidence in the PEX. Hence, the Palestinian economy is required to open up corporations to attract additional foreign investments and, in turn, improves the quality and effectiveness of CG (Abdelkarim & Alawneh, 2009).

Some prior studies have been conducted in the Middle East and Africa. For example, Farouk and Bashir (2017) found that foreign ownership had a positive and significant influence on EM activities in Nigerian listed companies. In Jordan, Almasarwah (2015) found that foreign institutional ownership was significantly and positively related to EM, while individual foreign ownership was significantly and positively related to the level of EM. This means that higher foreign ownership appears to be associated with more EM. Therefore, according to the discussion, this study will investigate the influence of foreign ownership on EM. So, the following hypothesis is posited:

H12: There is a positive relationship between foreign ownership and EM in Palestinian listed non-financial companies.

4.3.4 Board of Directors Quality

Amrah, Hashim, and Ariff (2015) have argued that the main body of CG is BOD to play a monitoring role and deals with agency problems to mitigate them. According to the agency theory perspective, the BOD is one of the essential mechanisms to monitor the acts of managers to maximize the stockholders' interest and wealth. Indeed, the BOD plays a crucial role in reducing the information asymmetry that decreases the level of the agency problems. In addition, the effectiveness of the BOD plays a significant role in protecting the interests of stakeholders against management's self-interests (AbuSiam et al., 2014b). The other primary role of the BOD is to provide the company with the requested various resources that are beneficial in decision making to improve a company's performance (Guerrero-Villegas et al., 2018).

Number previous studies have argued that the effectiveness of a BOD in its monitoring role leads to an increase in the credibility of financial statements. Thus, it is appropriate to hypothesize that an effective BOD will assist in constraining EM (Klein, 2002; Anderson et al., 2004 & AbuSiam et al., 2014a). Based on the discussion above, it is expected that if these elements exist as a group, this will boost the monitoring role of the board in minimizing the possibility of manipulation of accounting values. Chobpichien, Haron, and Ibrahim (2008), Ward, Brown, and Rodriguez (2009), and AlQadasi & Abidin (2018) have reported that it is essential to deal with governance mechanisms as a group of mechanisms to maintain stockholder interests because these CG mechanisms may be supplementary to each other.

Several prior studies have addressed the BOD characteristics as a group and used aggregate measurement to measure the BOD effectiveness (see, Amrah et al., 2015; Gillan, 2011; Makhlouf et al., 2018; and Hashim & Amrah, 2016). These researchers agreed on the importance of using the composite measure for three reasons. First, using

a comprehensive measure combining the board characteristics to avoid the limitation in using them individually is a better method than look at them individually. Second, individual mechanisms might provide mixed and contradictory results, while an aggregate measure provides accurate results. Finally, a complementary relationship exists among the overall mechanisms. Hence, it is better to create a composite measure to evaluate board effectiveness because the mechanisms are intervention variables.

AlQadasi and Abidin (2018) investigated the role of the concentration of ownership in the relation between CG mechanisms and audit quality. This study dealt with CG mechanisms as a composite metric and assigned each factor a score ranging from 1 to 10. The study found that firms with higher concentrated ownership were less likely to ask extensive auditing. Garcia-Torea et al. (2016) investigated the effectiveness of boards of directors in ensuring the interests of both stockholders and stakeholders. The study showed that stronger effective boards were more interested in addressing the interests of both the stockholders and other stakeholders. Hence, they proposed a composite metric to measure the effectiveness of boards by combining several characteristics of the board in one group.

Dhaliwal, Naiker, and Navissi (2006) found that the strength of BOD results in better accruals quality through investigating the relationship between the qualities of CG (BOD's effectiveness) and accruals quality. This study measured the strength of a firm's board employing four commonly used board characteristics: board size, board independence, director shareholding, and CEO-Chair duality.

O'Sullivan et al. (2008) examined the effect of BOD as a composite measure on the decision to disclose voluntarily. They found that the overall efficacy of the BOD as positively associated with voluntary disclosure. Similarly, Hoitash, Hoitash, and Bedard (2009) examined the association between BOD as a group, which measured the

effectiveness of BOD based on several characteristics, including board size, board tenure, board independence, number of meetings, and the average number of non-executive directorship, and disclosures of material shortcomings in internal control of financial reporting. However, this study failed to show the expected negative associations of overall board quality with material weaknesses disclosures.

In terms of the BOD effectiveness score, Amrah et al. (2015) constructed an aggregate score to measure the level of BOD effectiveness by using characteristics of BOD to investigate the impact of a composite score on the costs of debt. Interestingly, they reported that using the aggregate score to measure the quality of BOD gave a comprehensive image of the relationship. Ishak & Al-Ebel (2013) documented that when the score of BOD quality increased, the disclosure quality increased in the annual reports of banks. Moreover, they established the score of the BOD quality by addressing the size of BOD, BOD independence, the number of BOD meetings, committees of BOD, audit and remuneration committees, and CEO-duality.

Based on the arguments above, the expectation is that firms in Palestine with high board quality can mitigate the practices of EM to minimize agency problems and improve the monitoring of managerial actions and provide a highly credible financial report. Therefore, the following hypothesis is posited.

H13: There is a negative relationship between BOD quality and EM in Palestinian non-financial companies listed on the PEX.

4.3.5 Audit Committee Quality

AC as an internal mechanism of CG considered a vital tool in any business because of its special responsibilities, duties, and monitoring roles, which assist the BOD in confirming whether financial reports are free of manipulated items, notably

reported earnings (Carcello & Neal, 2003 & Mohamed & Ragab, 2014). The multiple characteristics of an AC, such as the presence of financial and accounting experts and non-executive directors, should improve its quality (DeZoort et al., 2002; Shawtari et al., 2015). DeZoort et al. (2002) demonstrated that it is better to explore the characteristics of AC as a composite score by combining them in one index. The objective of this score is to measure the quality of the audit committee. Ward et al. (2009) have argued that investigating the mechanisms of CG as a group rather than as individual items should be addressed in future studies. Hence, this current study concentrated on investigating the quality of BOD and AC as a composite measure besides investigating the characteristics individually.

Zgarni, Hlioui, and Zehri (2016) investigated the influence of the quality of AC and the quality of an external audit on the financial reporting quality to reduce EM practices in the Tunisian listed firms in pre- and post-adoption periods of the country's financial security law. To achieve the purpose of their study, they established a score to measure the effectiveness of AC based on five characteristics (AC existence, AC size, AC independence, meetings of AC, and AC financial expertise). Empirically, they found that a supplementary relationship exists between an effective AC and the specialization of external auditors in mitigating EM practices.

Hassan, Hijazi, and Naser (2017) conducted their study in the United Arab Emirates (UAE) as an example of an emerging economy. The objectives of their study were to investigate the association between effective AC and OS of UAE non-financial listed firms. To fulfil their study's objectives, a composite measure was constructed by four variables to measure the quality of AC, namely, size, financial expertise, independence, and AC frequency of meetings. They found a negative relationship between the effectiveness of AC with government and institutional ownership.

Consistent with prior literature and according to the data of AC available in the financial reports of the non-financial firms listed in PEX, this study addressed three factors of AC to construct a composite measure as a proxy of AC quality, namely, AC size, AC independence, AC financial expertise.

According to the discussion above and evidence, it worth investigating AC quality in Palestinian firms and examining its role in improving the quality of financial reports by constraining EM practices. Hence, the following hypothesis is posited:

H14: There is a negative relationship between AC quality and EM in Palestinian non-financial companies listed on PEX.

4.3.6 The Moderating Effects of Political Instability on CG and EM

The Israeli occupation has damaged the Palestinian economy due to its dependence on the Israeli economy from 1948 until today (Abdelkarim, 2017). In fact, World Bank (2017) classifies Palestine's economy as one of the emerging economies characterized by low productivity, few investments, and limited competition because of the high degree of political instability and ongoing wars and closure by Israeli procedures (World Bank, 2014). In addition, political instability in West Bank and Gaza Strip creates obstacles facing the economic and investment climate, which, in turn, reduces the economic growth rates and the productivity of the private sector in Palestine. Accordingly, political instability is considered a crucial threat to current and potential investors and is also a major reason make private sector not working effectively for many years up to date (World Bank, 2015).

The Palestinian economy has suffered more since the Oslo agreement in 1993 due to the Israeli control on the Palestinian Economy (Abdelkarim, 2017). Despite that, the annual growth of the Palestinian economy recorded 9% on average during the period

from 1994 until 1999. This growth was due to large inflows of private and public capital and increased private investment. (World Bank, 2017). In 1999, the Palestinian territories witnessed an increasing level of violence, as Israel reoccupied the Palestinian territories (Gaza & West Bank) and imposed strict restrictions on the movement of Palestinian citizens. The second intifada was launched in the year 2000. So, the Palestinian economy since that year was down warding, which in turn increasing the economic instability and negatively affected investor confidence (Hassan et al., 2016).

From 2008 to 2012, growth has improved to the annual average of 8% due to large amounts of donor funding, which was proximately equivalent to 32% of Palestinian GDP in 2008. In terms of Arab spring revaluations in 2011, which occurred in some Arab countries, especially Libya, Egypt, Jordan, Algeria, Bahrain, Yemen, and Syria, these revelations led to a change in the regimes in some countries (Ghosh, 2015). Palestine shares the Arab Spring states unstable economic and political conditions due to the continuous Israeli practices against the Palestinians and the Palestinian economy (Ghanem, 2013). Accordingly, in 2011 the year of the Arab Spring, ALQUDS Index fell to 12.7 points less than the results in 2010 by 2.6%. This came as a result of the decline in all sectors' indicators, as there was a decrease in the indicators of the investment sector (10.48%), the industrial sector (1.45%), the services sector (1.15%), and the insurance sector (3.65%), while the banking sector index increased by 0.72 % (Palestine Monetary Authority (PMA), 2011).

In 2012, several political events occurred, such as the war which has happened after the assassination of a well-known Palestinian leader in Gaza by Israeli jets, and ongoing closure and restricting movements of goods, services and people and the and also the continuous division between Gaza Strip and West Bank. So, PEX, 2012 has documented that the real GDP recorded a growth of 5.9% in 2012 in Palestine, which

is lower than the growth rate in the previous year. Similarly, Al-Quds Index decreased during the first three quarters of 2012, while it recorded a slight increase in the fourth quarter of the same year (PEX, 2012). In terms of 2013, the Palestinian economy has witnessed a slowdown in growth during the last three years, and this slowdown increased in 2013 only to 2.1% (PEX, 2013), while the growth rate was 5.9% in 2012 and about 12.2% in 2011 (PMA, 2013). This slowdown is due to political and economic instability and the weakness of the private sector considering the declining performance of the public sector.

The year 2014 witnessed the most destructive wars in the Gaza Strip, which led to massive damage to the infrastructure of the sector as there was a slow flow of regional and international aid, reconstruction funds, and taxes due to the Palestinian Authority, all of these factors made the Palestinian national economy weak. These and other factors also led to a lower-than-expected performance of the stock price of many listed companies, in addition to a significant decrease of 5.48% in the Al-Quds index by the end of 2014 (PEX, 2014 & PMA, 2014). Based on a World Bank (2015) report, the 2014 war on Gaza left a disastrous impact on the economy of Palestine, which led to a negative growth rate. Thereby, the 2014 war has shaved about \$460 million off Gaza's economy, leading to a 15% contraction of its GDP. Moreover, the annual average of economic growth in 2015 and 2016 was 3.4%, while in 2017 declined to 0.7% due to political tension and division between the Gaza Strip and West Bank.

Several prior studies addressed the financial crisis, political matter, and their effect on EM and income smoothing (e.g., Wang, 2011; Attia et al., 2016; Hsiao et al., 2016; Obaidat 2017; Harymawan & Nowland 2016; Anon 2008; Filip & Raffournier, 2014; Habib et al., 2013; Harymawan & Nowland, 2016). Hsiao et al. (2016) found that US oil and gas firms have engaged in EM practices during the Arab Spring.

Furthermore, Obaidat (2017) indicated that the firms were more likely to practice income smoothing in the political crisis periods.

Abu Jamia (2013) argued that the foreign investments had fled from the countries affected by Arab spring, such as Egypt, Tunis, Libya, and Syria, due to political unrest and the resultant economic situation. He also found that the volume of Palestinian exports declined during the Arab Spring. Finally, he recommended that the regulations, laws, and code of CG should be updated to provide more protection to foreign investment and attract additional local and foreign investments to enter the Palestinian private sector. Also, Obaidat (2017) reported that Jordanian non-financial listed firms were more likely to engage in income smoothing during the periods of political crises. Furthermore, Vladu (2013) found that income smoothing behavior decreased during crisis periods in Spanish listed companies.

Harymawan and Nowland (2016) found that government effectiveness would increase the quality of earnings in politically connected firms. Conversely, they found that more political stability would lead to decreased earnings quality in politically connected companies. They then suggested future studies related to political stability and earnings quality to motivate firms to improve the quality of financial statements. Ahmad-Zaluki, Campbell, and Goodacre (2011) found the Malaysian IPOs practice income increasing-EM during the East Asian Crisis. Within the high-ownership concentration Malaysian market, post-IPO control concerns also appear to constrain IPO EM: owners seem willing to accept to reduced IPO proceeds and signaling opportunities to increase the likelihood of retaining control of the company post-IPO.

Mangena et al. (2012) examined the association between BOD and OS and the performance of companies in a severe political environment and economic crisis. They use the political theory that Roe (2003) developed to investigate this relationship. They

found that during the period of post-presidential election, BOD size, executive directors' ownership, and ownership concentration increased, while the proportion of non-executive directors decreased. Firm performance was positively related to board size and ownership concentration in the post-presidential election period, but not in the pre-presidential election period. They documented that the relationship between performance and executive directors' share ownership was positive in the pre-presidential election period, but negative in the post-presidential election period. Overall, they suggested that a large BOD and ownership concentration were more critical in an environment with a severe political and economic crisis. Finally, they recommended that more studies should examine disclosure and EM in the unstable political environment.

Attia et al. (2016) study was conducted to expand the previous literature with evidence from emerging economies through testing the political costs hypothesis in Tunisia. That was because emerging economies are characterized by government interventions and weak protection of property rights and political and economic stability, especially the Arab Spring countries. Based on the sample of all non-financial firms listed in the Tunisian stock market from 2007 until 2011, they found that the magnitude of DAC increased after the revolution, which was a highly unstable period.

Accordingly, the political and economic turmoil in Palestine is one of the motives for conducting this study, as it is possible to generalize its results to neighboring countries because of their unstable environment due to the consequences of Arab springs and Seville disputes, which may be like the Palestinian environment.

Based on the above arguments, agency theory and political theory, the following hypotheses are posited:

H15: Political instability influences the EM practice positively in Palestine.

H16: Political instability moderates the relationship between BOD quality and EM in Palestinian non-financial firms listed on the PEX.

H17: Political instability moderates the relationship between AC quality and EM in Palestinian non-financial companies listed on the PEX.

4.4 Research Philosophy

Burrell and Morgan (1994) said that an appropriate paradigm must be considered for a study. Thereby, a philosophical assumption is said to be a critical issue for social science research. Accordingly, this current study follows a positivist paradigm. In this, the hypotheses were posited to grasp the influence of the CG on EM. Such an influence is investigated and examined empirically using a researcher's analytical tools in addition to a researcher's theoretical assumptions.

Burrell and Morgan (1994) declared that positivist research must explain and diagnose the social world; thus, consistencies and causal associations between its essential elements are attained. Saunders et al. (2009) assured that positivism was related to deduction, which facilitates describing the casual relationships between or through variables, and the generalization of conclusions. Therefore, this current research follows the deductive approach rather than the inductive approach. According to Marashdeh (2014) and Amer (2016), the following points are justifications for selecting a deductive approach for such a study:

First, a deductive approach looks for knowledge by scientific principles rather than focusing on human-constructed meanings related to events.

Second, it tends to examine hypotheses regarding existing theories, not to invent theory.

Third, it depicts spontaneous relationships among variables rather than elaborating upon the research context.

Fourth, it is more structured and uses quantitative data.

Fifth, this research does not consider past expertise nor prior opinions; it rather depends on analytical procedures; thus, research independence is maintained.

Sixth, given a sufficient sample size, the deductive approach assists in generalizing the conclusions.

The following subsequent steps must be considered to carry out this approach (Robson, 2002):

First, establish testable hypotheses regarding the associations between variables by emending on a well-defined theory.

Second, explain the method by which these hypotheses will be tested and how to measure the variables by defining them in operational terms.

Third, adopting an empirical research strategy to examine causal relationships within variables to examine the operational hypotheses.

Fourth, test specific results that either confirm a theory in the end or reveal the need for a specific adjustment considering empirical results.

Burrell and Morgan (1994) recommended that the functionalist paradigm is the best used deductive research. Protocols administer the population of a study, and objective positivism is followed in the epistemology used. Testing the influence of CG on the EM, following the research analysis strategies, is the main basics of the research objectives for the current study. Accordingly, the law of occurrence and phenomena occurrence is found and deduced by using positivism. In recurrent scenarios, the occasional relationships between variables in the study are explained and identify the expected relationships interpreting the prominence of phenomena. This object is to

develop hypotheses and design the appropriate research strategy through which these hypotheses can be tested (Saunders, Lewis, & Thornhill, 2009). The philosophy of this type of study is since the research does not seek to generate a new theory; it seeks to examine hypotheses generated by existing theory through analyzing quantitative data. Hence, the deductive approach is the most appropriate one for this study.

The main objective of this current research is to explore CG quality, particularly the characteristics of the BOD, AC, and OS on EM in the non-financial companies that are listed on PEX. Accordingly, this study applied the positivistic philosophy, in which the data set was analyzed to examine the relationship between CG components and EM as a dependent variable. This approach investigates the relationship between BOD characteristics (BOD size, CEO duality, BOD independence, BOD nationality diversity, frequency BOD meetings, and governance committee), AC characteristics (AC size, independence, and financial expertise), and OS (ownership concentration, institutional ownership, and foreign ownership) and a set of control variables including age, cash flow, and the annual growth on the EM as measured by the absolute value of DAC. Moreover, political instability is addressed as a moderator to investigate its effects on the relationship between EM and the quality and effectiveness of the BOD and AC.

4.5 Quantitative Research Approach

A quantitative research approach is considered as a part of the positivist social sciences paradigm, mirroring the scientific technique of social sciences (Jennings, 2001; Krauss, 2005). The positivist paradigm takes into consideration a deductive approach to research procedures. It begins with theories and hypotheses on a specific phenomenon, then the data collection process, and analyses a data set statistically to

either support or reject the primary hypotheses (Blanche & Durrheim, 1999; Welman & Kruger, 2001).

Based on a quantitative research approach, researchers use a deductive approach and design it according to a theory to steer the research design and elaborate on their findings. (Neuman, 1997). This research approach examines a suggested theory instead of constructing one. Conclusively, this research approach is objectively constructed. Furthermore, the research findings are usually representing the studied population.

This study used a quantitative approach because the nature of this type of research relates to quantitative methods such as financial data analysis that studies related to CG often use. For example, many previous studies have measured CG variables as percentages or binary and abstract numbers. Few studies have used a qualitative approach to CG due to the limited information available on how a BOD works, making the collection of essential information about the role of a company's BOD in improving performance and provisions for supervision of managers challenging. Also, difficulties related to the political environment and the geographical area prevented conducting a qualitative study.

The main objective of this current study was to verify the effectiveness of CG by examining the characteristics of BOD and AC and OS and their effect on the level of EM practice in the Palestinian market. Thus, the quantitative approach was used here. Data were analyzed to test the relationship between CG and EM in non-financial firms listed on the Palestine Exchange. Following this approach, the current study was able to test the implemented theory versus the distinct sample observed, which makes the generalization of results applicable to the research community as a whole and other similar society in neighboring and developing countries.

4.6 Research Design

Four main subtitles present the design of this research. The first one discusses the population of the study, sample selection, and the methods of data collection. The second provides the operational definitions of the variables. The third discusses the econometric approach used, which helps select the most appropriate and relevant approach for this study. As a methodological contribution, the EM framework of the main model includes BOD characteristics, AC characteristics and OS. This model introduced the two some variables which firstly utilized in Palestine (the existence of remuneration and governance committee, BOD nationality diversity, institutional ownership, foreign ownership, ownership, and AC attributes). In addition, the EM framework of the moderation model consists of new variables is firstly used in such studies (political instability) and other variables are firstly used in Palestine (BOD and AC quality). Moreover, Political instability has not been treated as a moderator in the previous research of CG and EM. Furthermore, this research employs panel data for the years between 2011 and 2018, where the same companies serve on the panel over eight years, and which gives advantage to measurement of the changes that take place between points in time. This is especially true since the Palestinian CG code was introduced in 2009. The fourth subsection discusses regression models and analysis procedures.

4.6.1 Population Selection and Data Collection Methods

4.6.1.1 Population Selection

The data set of this current study consists of the Palestinian non-financial companies listed on PEX for eight consecutive years of reporting periods from 2011 to 2018 (www.pex.ps). Several reasons for addressing this period. First, the period was

chosen to ensure the availability of data related to CG factors and EM in published annual financial statements. The second was to guarantee uniformity in the practice of CG in all listed non-financial companies on PEX established the PCCG was promulgated in 2009. Third, the period was chosen for the sake of studying political effects as a moderating variable. The period from 2011 to 2018 had many critical events during this period. For instance, 2011 is the year of Arab Spring in the neighboring countries to Palestine, while the wars happened in Gaza Strip in 2012 and 2014. Accordingly, 2013 is located between two wars. So, the years from 2011 until 2014 are representing the period of severe political instability. Fourth, the effects of the global financial crisis that had occurred in 2008 still existed, and the Arab Spring occurred in the spring of 2011. Finally, 2018 was chosen as the terminus because the latest data for the overall variables of the research were available.

Furthermore, this study addressed Palestinian non-financial listed companies and excluded the financial listed firms in aligning with previous literature (e.g., Abdelkarim & Zuriqi, 2020; Alia et al., 2020). Choosing the non-financial listed companies is for several reasons: First, the managers of non-financial firms can choose among several accounting choices (such as several measurement options) to treat the same accounting transactions because of the flexibility that International Financial Reporting Standards (IFRS) provide (Idris, 2012). Second, the non-financial sector is considered as a cornerstone of the Palestinian economy and comprises 33 companies of the total 48 companies listed on the PEX, as elaborated in Table 4.1. Third, the financial sector was excluded because it is subject to the PMA CG code, which is stricter than the CG code for companies listed on PEX. Fourth, the financial sector, which has banks and insurance companies, was excluded due to their different accounting items included in their financial statements. See Table 4.1.

Table 4.1: The Weight of Sectors and Companies listed on PEX

Description	Number of firms	Percentage
Overall Firms Listed on PEX	48	100%
Non-Financial Sector	33	68.7%
Industrial companies	13	27.1%
Services companies	11	23.0%
Investment companies	9	18.7%
Financial Sector	15	31.2%
Banks companies	8	16.7%
Insurance companies	7	14.5%
The sample size (non-financial Sector)	33	68.7%

This study identified some conditions to choose the sample size, first, utilize only non-financial listed firm. Second, the companies must not quit of trading or suspending by PEX during the period of the study. Third, exclude any company of missing reports during the study period. Thereby, Table 4.2 presents a summary of the population for this research. The total number of listed companies on PEX in 2018 was 48 companies. Thirty-three companies were the total of non-financial listed companies, which included the industries, services, and investment sections. Fifteen financial companies were excluded, and four of the companies of the non-financial sector were excluded due to incomplete data and missing annual reports for the study period. The final population was 29 firms for the eight years from 2011 to 2018 (232 firm-year observations). Table 4.2 shows the population of the study.

Table 4.2: Population of the Study

Description	No. of Firms
Total number of overall listed firms on PEX as in 2018	48
Less: Financial listed firms	(15)
Total number of non-financial listed firms on PEX as in 2018	33
Less: Non-financial listed firms with missing reports	(4)
Final Population Selection	29
Total firm-year observations for 2011 to 2018	232

4.6.1.2 Data Collection Methods and Procedures

The data of non-financial listed firms were manually collected from online annual reports (secondary data) that were publicly available on the PEX website from 2011 to 2018. Each listed firm on PEX has two files produced by PEX. The first file includes financial data involved in statements containing the balance sheet, income statement, cash flow statement, and several financial ratios. The Thomson Reuters One website was used to collect financial data related to EM and the control variables. Therefore, the missing financial data were collected manually from published annual reports. The second file consisted of non-financial data. Thus, the non-financial data regarding independent variables (BOD characteristics, OS, and AC characteristics) were collected manually from the published annual reports. A secondary data technique may provide much real data that can be useful in problem solving (Sekaran, 2003). Thus, this technique was chosen for this current study.

4.6.2 Operational Definitions and Measurements of the Variables

The study's variables were classified into four kinds of variables, including the dependent variable, several independent variables, one moderator variable, and three control variables. The dependent variable was EM. The independent variables consisted of three groups, including BOD characteristics (board independence, board size, board nationality diversity, and board meetings, the existence of remuneration and governance committee, and CEO-duality), AC characteristics (independence, size, financial expertise, and AC quality) and OS (foreign ownership, institutional ownership, and ownership concentration). The other independent variables are political instability, BOD and AC quality. The moderating variable was political instability, and the control

variables were firm age, cashflow, firm growth. The subtitles elaborate on the variables of the study.

4.6.2.1 The Dependent Variable and Measurements

Following the most extant literature, this current study employed the DAC tool as a proxy for detecting EM practices. Indeed, the most widely proxy employed by EM literature is the DAC (Buriilovich & Kattelus, 1997; Dechow, Ge, & Schrand, 2010; Jackson, 2017; Abdelkarim & Zuriqi, 2020; Alhadab & Clacher, 2018; Alia et al., 2020; Becker et al., 1998; Fields et al., 2001; Ewert & Wagenhofer, 2015; Tang, 2012; Zang, 2012). Oberholzer-Gee and Wulf (2012) advocated applying DAC in the existing literature by arguing that an accurate measure of earnings manipulation was conceptually like DAC. Alia et al. (2020) called for the application of DAC in the upcoming literature by stating that the proper measure of EM is DAC. In order to compute the DAC, the difference between the actual accruals (total) and the expected accruals (normal) equal to the DAC was the dependent variable for detecting EM practices (Dechow & Schrand, 2010; Healy & Wahlen, 1999).

The prior literature has developed several models to compute the level of EM practice. Both the Jones' (1991) model and the Modified Jones' (1995) model are widely in the prior literature to measure EM (AbuSiam, 2015). Dechow et al. (1995) reported that the Modified Jones Model (1995) effectively detects EM practice in the majority developed economies. On the other hand, several empirical studies have revealed that the Modified Jones Model (1995) was not effective in detecting EM practice in the context of Korea and Bangladesh (Islam, Ali, & Ahmad, 2011; Yoon & Miller, 2002; Yoon et al., 2006). Additionally, the Modified Jones Model (1995) is not

effective in detecting EM in developing countries such as Palestine (Alareeni & Aljuaidi, 2014).

Kothari et al. (2005) have argued that the Modified Jones Model (1995) might lead to severe errors in measuring the DAC because this model does not use previous firm performance (ROA). So, this study addressed the absolute values of DAC as a dependent variable, which is a proxy for detecting EM. Thereby, the modified Jones Model, as developed by Kothari et al. (2005), is the implemented model addressed in this study. Recent studies have favored the inclusion of ROA to the Modified Jones Model equation (e.g., Abdullah, Halim, & Nelson, 2014; Abdullah & Ismail, 2016; Carcello, Hollingsworth, Klein, & Neal, 2011; Anwar & Buvanendra, 2019).

The Kothari et al. (2005) model has recently been the focus of the accounting studies and is characterized by controlling for the past performance of a company (Beladi et al., 2020; Idris et al., 2018). Recent studies have used the modified Jones Model proposed by Kothari et al. (2005) to measure and detect the DAC as a proxy of EM practice. This measure includes lagged ROA to minimize the problems of heteroscedasticity and misspecification matters that emerged with previous models (Chang & Sun, 2009; Habbash et al., 2013). Consistent with the recent prior studies, particularly in a developing country, this current study employed the model of Kothari et al. (2005) to measure and detect the DAC as a proxy of EM practices. Compared with the modified Jones model, Kothari et al. (2005) added ROA_{i-t} , and the constant to control the impact of performance on accrual earnings. Consistent with Beladi et al. (2020), the residual is utilized as a measure of the magnitude of EM. The following steps elaborate on the procedures and equations of calculation DAC as a most widely proxy for detecting EM as a dependent variable of this study.

For the sake of estimating the discretionary accruals, the first step is to calculate total accruals by using the approach of cash flow, total accruals of company i in year t (TAC_{it}) are calculated as follows:

$$(4.1) \quad TAC_{it} = N.I_{it} - CFO_{it}$$

where:

TAC_{it} = The Total accruals for company i in year t

$N.I_{it}$ = The Net income before extraordinary elements for company i in year t

CFO_{it} = The Cash flows from operating activities for company i in year t .

Step two uses the Modified Jones Model (1995) as in Kothari et al. (2005, p. 174). the non-financial sectors estimate for all companies is separately computed for each year, where total accruals are scaled by lagged total assets to control for potential scale bias. The Kothari et al. (2005) model takes the form below:

$$(4.2) \quad TAC_{it}/TA_{it} = \alpha (1/TA_{it-1}) + \beta_1 ((\Delta REV_{it} - \Delta REC_{it})/TA_{it-1}) + \beta_2 (PPE_{it}/TA_{it-1}) + \beta_3 ROA_{it-1} + \epsilon_{it}$$

where:

TAC_{it} = Total accruals for firm i in the year t ,

TA_{it-1} = Total assets for firm i at end in the year $t-1$,

ΔREV_{it} = Change in sales revenues for firm i in year t from year $t-1$,

ΔREC_{it} = Change in accounts receivables for firm i in year t from year $t-1$,

PPE_{it} = Gross property, plant, and equipment for firm i at end in the year t ,

ROA_{it-1} = Return of assets for firm i in year t from year $t-1$ (net income divided by lagged total assets),

$\alpha \beta_1 \beta_2 \beta_3$ = Estimated parameters,

ϵ_{it} = The residual.

Step three is to calculate the non-discretionary accruals, so ordinary levels of working capital accruals related to sales are controlled over the changes in revenue adjusted for changes in accounts receivable. Ordinary levels of depreciation expenditures and deferred tax accruals are controlled among the property, plant, and equipment, which were adopted by Kothari et al. (2005). By using the evaluated coefficients α , β_1 , β_2 , and β_3 for each firm acquired from equation (2), non-discretionary accruals (NDAC_{it}) can be computed for each firm separately and during each year of the study are as follows:

$$NDAC_{it} = \alpha (1/TA_{it-1}) + b_1 ((\Delta REV_{it} - \Delta REC_{it}) / TA_{it-1}) + b_2 (PPE_{it} / TA_{it-1}) + b_3 ROA_{it-1} + \epsilon_{it}$$

(4.3)

Step four, then the DAC estimate as a proxy of calculating the level EM practices. So, it is computed by subtracting non-discretionary accruals obtained from the equation (4.3) from total accrual collecting from the equation (4.2) as follows:

$$DAC_{it} = TAC_{it} / TA_{it} - NDAC_{it}$$

(4.4)

Because the current study concentrates on the magnitude of EM, the absolute amount of DAC (ABSDAC) is used to measure EM. In this regard, Rahman, and Ali (2006) argued that “the direction of EM is disregarded to include the combined effect of income-increasing and income-decreasing EM” (p. 791). Subsequently, consistent with prior research, the current study employs the absolute value of DAC (Idris et al., 2018; Klein, 2002; Kothari et al., 2005; Rahman & Mohamed Ali, 2006). Furthermore,

this current study addressed the absolute value of DAC, according to Klein (2002), Rahman and Mohamed Ali (2006), and Pérez-Calero et al. (2016). They argued that the absolute value of DAC was an effective proxy for the total effect of both income-increasing and income-decreasing EM. Pérez-Calero et al. (2016) found evidence that a high amount of absolute value of DAC refers to lower earnings' quality.

$$(4.5) \quad ABDACit = |DACit|$$

where:

$|DACit|$ = The absolute value of DAC (ABSDAC) as a measure of EM.

To sum up and by following the most related prior studies, Kothari Model was implemented by employing pooled OLS regression without a constant. So, the error terms from this regression were the estimations of the DAC. The absolute value of the error term from this model was utilized because EM may include both types of increasing and decreasing options of reported income. Thereby, the proxy of the magnitude of EM is the absolute value of DAC.

Regarding to the preliminary results to compare the modified Jones model and Kothari et al. (2005) model, Table 4.3 demonstrated that the statistical model is not valid when the modified Jones equation was regressed, and the R-square is very low. As a result, R² is 18% while the Prob > F is over than 0.05. Hence, this study neglecting the modified Jones model in calculating the DAC.

Table 4.3: Preliminary Regression Results of the Modified Jones Equation

TACCit/Ait1	Coef.	Std. Err.	t	P>t
1/Ait1	21872.26	52258.82	0.42	0.688
(REVit-RECit)/Ait1	0.120735	0.0589007	2.05	0.080*
PPEit/Ait1	-0.0109	0.0113937	-0.96	0.371
_cons	-0.009247	0.0084219	-1.1	0.309
Number of obs.		232		
Prob > F		0.278		
R-squared		0.1824		

Note: TACCit = total accruals; Ait1= total assets; REVit= change in revenues; RECit change in receivables, PPE= gross plant, properties, and equipment

Based on the regression results of Kothari et al. (2005) model equation, Table 4.4 documented that the statistical model is valid when the Kothari et al. (2005) equation was regressed, and the R-square is quite good. As a result, R² is 44% while the Prob > F is less than 0.05. Hence, this study utilized the Kothari et al. (2005) model in calculating the DAC.

Table 4.4: Preliminary Regression Results of the Kothari et al. (2005) Equation

TACCit/Ait1	Coef.	Std. Err.	t	P>t
1/Ait1	-160679.7	82306.11	-1.95	0.055*
(REVit-RECit)/Ait1	-0.12986	0.058694	-2.21	0.03**
PPEit/Ait1	-0.038539	0.0562935	-0.68	0.496
ROAt-1	0.702844	0.1252029	5.61	0.00***
_cons	-0.003526	0.028021	-0.13	0.9
Number of obs.		232		
Prob > F		0.000		
R-squared		0.4424		

Note: TACCit = total accruals; Ait1= total assets; REVit= change in revenues; RECit change in receivables, PPE= gross plant, properties, and equipment; ROA= lag return on assets.

To conclude, preliminary results reveal that Kothari et al. (2005) is more effective than modified Jones Model (1995) due to F value of the statistical Model. The F value of the regression model by regressing the data of Kothari is less than 5% but regressing the data by using Modified Jones is bigger than 5%. That means the model not

statistically valid by using Modified Jones model. So, this study used Kothari model. The results are consistent with (Alareeni & Aljuaidi, 2014).

4.6.2.2 Measurements of Independent Variables

This section provides the definitions of the independent variables and their measurements. All measurements are addressed according to the prior literature, as follows:

4.6.2.2.1 Board Size

BOD size is the total number of directors (members) on the board of the company; this consists of executive directors and non-executive directors (Abdeljawad & Masri, 2020; Abbadi et al., 2016; Abed et al., 2012; Hassan et al., 2016; Rahman & Mohamed Ali, 2006). The current study measured the size of the board as the total number of members serving on the BOD at the end of each fiscal year.

4.6.2.2.2 Board Meetings

BOD meetings were measured by the number of meetings held by the BOD of the listed firms every fiscal year. Numerous prior studies have used this metric (Abdeljawad & Masri, 2020; Habbash, 2011; Yousef M. Hassan et al., 2016; Idris et al., 2018; Xie et al., 2003). According to PCCG recommended that the firms listed in PEX should held at least 6 meetings annually.

4.6.2.2.3 Board Independence

The independence of BOD was defined as the proportion of non-executive directors on the board of a firm. Consistence with the agency theory perspective, it is

anticipated that a higher proportion of non-executive directors on the BOD would enable it to monitor the management of the company and restrict it from engaging in EM and protecting the interests of stockholders. The current study calculated BOD independence by dividing the number of non-executive directors by the BOD size (Abdeljawad & Masri, 2020; Chtourou, Bédard, & Courteau, 2001; Hassan et al., 2017; Idris et al., 2018; Peasnell et al., 2005; Xie et al., 2003; Zaid, Abuhijleh, & Pucheta-Martínez, 2020).

4.6.2.2.4 Board Nationality Diversity

BOD nationality diversity (BODND) was defined as the number of directors from other countries (regions) outside Palestine. Some argue that foreign directors recognize EM issues due to their diverse knowledge and background (Du et al., 2017). This line of argument means that BOD nationality diversity can improve the quality of board decision-making and enhance the quality of financial reporting. BOD nationality diversity is calculated by dividing the number of foreign directors who are from other countries outside of Palestine by the size of the board (Du et al., 2017 & Ibrahim & Hanefah, 2016).

4.6.2.2.5 Existence of Remuneration and Governance Committee

A dummy variable is used to measure the existence of a remuneration and governance committee; it takes a value of 1 if this committee exists in the firm, and 0 if otherwise. Prior studies such as Alghamdi (2012), Habbash (2011), and AbuSiam (2015) have used this measurement.

4.6.2.2.6 CEO-Duality

CEO-Duality occurs when the chairperson of the board also serves as the CEO of the firm. This study measured the CEO-Duality variable as a dummy variable with the value of 1 if the CEO was the chairman of the BOD, and 0 if otherwise, consistent with the studies of Abdeljawad and Masri (2020), Anderson et al. (2003), Hassan et al. (2017), and Klein (2002).

4.6.2.2.7 BOD Quality Score

Nunnally and Bernstein (1999) have argued that a better measure of any structure observable for future research could be obtained by combining the outcomes of a series of measures than using any one measure individually. A combined measure is seen as supplying a more valid structure, leading to better generalization than an individual measure. Therefore, to measure the effectiveness of BOD in this study, six characteristics were measured as a composite score. These were BOD size, frequency of meetings, independence, nationality diversity, CEO duality, and the existence of a remuneration and governance committee.

The scores of those above six individual characteristics were summed to generate an overall composite measurement for BOD quality. The composite score ranged from zero to six, with each individual metric was scored either 0 or 1. A larger score meant that BOD was more effect and a lower score meant that it was less effective. The current study followed the same procedures of previous literature to measure overall board effectiveness as a composite score (see, Aldamen & Duncan, 2012; AlQadasi & Abidin, 2018; Carcello et al., 2006; Hoitash et al., 2009; Ishak & Al-Ebel, 2013; Johl, Johl, Subramaniam, & Cooper, 2013; O'Sullivan, Percy, & Stewart, 2008). Each of these

studies used various characteristics of the BOD to compute an effectiveness score. Table 4.5 shows how each metric of the composite score was calculated.

Table 4.5: Constructing the BOD Quality Score

Characteristic	Description
BOD Quality Score	The score ranges from 0 to 6, with a higher score indicating higher effectiveness or quality of the BOD.
BOD independence	BOD independence is assigned "1" if the percentage of independent directors on the BOD is higher than the sample median and "0" if otherwise.
BOD Nationality diversity	BOD Nationality Diversity is assigned "1" if the percentage of foreign directors on the BOD is higher than the sample median and "0" if otherwise.
BOD Size	Board size is assigned "1" if the number of directors on the BOD was less than the sample median and "0" if otherwise.
BOD meetings	BOD meetings were assigned "1" if the number of meetings held by the board during the year was higher than the sample median and "0" if otherwise.
CEO Duality	This characteristic is assigned "1" if the CEO was not the chairperson of the BOD, and "0" otherwise.
Existence of a remuneration and governance committee	This characteristic was coded "1" if this committee existed in a company and "0" if otherwise.

4.6.2.2.8 AC Size

The most common measure of the size of AC is the total number of members of the AC at the end of the fiscal year (see, Mohamed M Soliman & Ragab, 2014; AbuSiam et al., 2018).

4.6.2.2.9 AC Independence

AC independence was measured as a percentage. This ratio resulted from dividing the number of independent members by the total number of members of the AC (see Lin et al., 2006; Mohamad, Rashid, & Shawtari, 2012; Rahman & Mohamed Ali, 2006).

4.6.2.2.10 AC Financial Expertise

Based on the majority of prior literature, the most widely used measure of expertise is the ratio of AC members who hold financial experience, which is calculated by dividing the number of committee members with expertise by the total number of AC committee members (Ayemere & Elijah, 2015; Bilal et al., 2018; Saleh et al., 2007; AbuSiam et al., 2018).

4.6.2.2.11 AC Quality Score

This study addressed three characteristics of AC based on most prior literature and the PCCG (2009), including AC size, financial expertise, and independence. An aggregate measure will be used to measure the overall characteristics of AC. The composite measure used a four-point scale ranging from zero to three. A larger score represents higher effectiveness of the AC, and a lower score represents lower effectiveness. The current study follows the same procedures of previous research the current study to measure AC score (Dhaliwal et al., 2007; Goh, 2009; Kent et al., 2010; O'Sullivan et al., 2008). Table 4.6 shows how the AC Quality Score was calculated.

Table 4.6: Constructing the AC Quality Score

Characteristic	Description
AC's Quality Score	The score ranged from 0 to 3, with a higher score indicating higher effectiveness of the AC.
AC independence	AC independence was assigned "1" if the percentage of independent directors on the committee is higher than the sample median and "0" if otherwise.
AC size	AC size was assigned "1" if the number of members on the committee is higher than the sample median and "0" if otherwise.
AC financial expertise	AC financial expertise was assigned "1" if the percentage of financial expertise members on the committee is higher than the sample median and "0" if otherwise.

4.6.2.2.12 Ownership Concentration

Ownership concentration is when common stocks are narrowly held (OECD, 1993). Prior works have employed several proxies of ownership concentration. For example, Le et al. (2015) used the ratio of owned shares by the largest three and five stockholders, while Li (2014) used the shares held by the first five stockholders as a percentage of total shares. AlQadasi and Abidin (2018) measured ownership concentration by the proportion shares of substantial stockholders who hold at least 5% of a company's shares. Al-Saidi and Al-Shammari (2015) used the percentage of the largest stockholders controlling more concentration than 5% of the total equity. Consistent with prior literature, the percentage ownership of the largest stockholders who own more than 5% of the total equity.

4.6.2.2.13 Institutional Ownership

Institutional ownership represents institutional investors in a firm. Most prior have computed it as the proportion of the ordinary stocks held by the institutional investors. In other words, institutional ownership is measured by dividing the number of common stock held by institutional owners, whether local or otherwise, by the total number of common stock (Al-Jaifi, 2017; Aljifri & Moustafa, 2007; Almasarwah, 2015a; Attia et al., 2016; Bao & Lewellyn, 2017; Farouk & Bashir, 2017; Gonzalez & Garcia-Meca, 2014b; Hassan et al., 2016; Lemma et al., 2018; Ping & Wing, 2011; Zaid et al., 2020). The data of institutional owners were collected from the website of PEX.

4.6.2.2.14 Foreign Ownership

Foreign ownership represents investors who are not permanent residents of Palestine, whether they are individuals or institutions. The majority of prior studies which have addressed the foreign ownership have calculated it as a percentage of the

common stocks that foreign investors hold, there they are classified as individual investors or otherwise (Farouk & Bashir, 2017; Hassan et al., 2016; Isa & Farouk, 2018; Parveen et al., 2016; Zaid et al., 2020). The data of foreign owners were collected from the website of PEX.

4.6.2.2.15 Moderating Variable of Political Instability

This political cost theory suggests that firms involved in the production and sale of consumer products are susceptible to adverse political actions. Indeed, previous empirical studies have reported that companies respond to periods of heightened political scrutiny by recording the abnormality (i.e., discretionary) income-decreasing accruals (Byard et al., 2007; Cahan, 1992; Han & Wang, 1998; Monem, 2003).

Hsiao et al. (2016) investigated political cost during the Arab Spring by assigning one for the first quarter of 2011, which was the event period (i.e., the Arab Spring), and zero if otherwise. They employed this indicator variable to explore the presence of EM in the period of interest. Obaidat (2017) investigated the impact of political crises on income smoothing behavior on non-financial companies listed on ASE from 2006 to 2015. Political crises were the independent variable. Because the impacts of Syria's refugees' crisis on the Jordanian national economy began in March 2011, the study period (2006-2015) was divided into two sub-periods, representing five years before the crisis (2006-2010) and five years during the crisis (2011- 2015). Hence, the Syria's refugees' crisis was a dichotomous variable, with 0 assigned to the fiscal years 2006-2010 and 1 assigned for the fiscal years 2011-2015.

This study will moderate the political instability according to several critical events that occurred from 2011 to 2014. According to prior literature, this study used a dummy variable to detect the effects of political instability in Palestine on the

relationship between CG mechanisms and EM. One was assigned for the period from 2011 to 2014 that had wars in 2012 and 2014, and 0 was assigned to the period from 2015 to 2018.

To sum up, the political instability was used as an independent variable in the prior literature to explore its impact on firm performance (Mangena et al., 2012), income smoothing (Obaidat, 2017) and the magnitude of DAC (Attia et al., 2016). By reviewing the prior literature (e.g., Mangena et al., 2012; Obaidat, 2017; Attia et al., 2016), political instability affects the effectiveness of CG and influence the level EM practice. Thereby, this study for the first time uses the political instability variable as a moderator to explore whether it moderates the relationship between BOD quality and AC quality with EM in Palestine.

4.6.2.3 Control Variables

Factors other than the independent variables previously mentioned might influence EM as a dependent variable. The current study addressed three control variables, firm age (FIRMAGE), firm growth (Growth), and (CASHFLOW), that were related to EM (Xie et al., 2003; Dimitropoulos & Asteriou, 2010; Idris et al., 2018; Idris, 2012; Klein, 2002; Rahman & Mohamed Ali, 2006). Control variables usually utilized due to their potential relationship with DV and correct the bias in the statistical model. In fact, the preliminary results reported that there is insignificant association between Firm size and industry, and they did not contribute to improving the statistical model as well. So, this study control Firm age, Cashflow, and growth.

4.6.2.3.1 Growth

The growth rate is the first control variable in this study and is addressed because it might relate to EM practices in Palestine. Several prior studies related to CG and EM

topics have used the growth rate (e.g., Johl et al., 2013; Moslemany & Nathan, 2019; AbuSiam et al., 2018). In several of these studies, the growth rate is measured by the change in total assets scaled by lagged total assets. AbuSiam et al. (2018) documented that the company growth rate had a significant and negative association with the level of EM. To sum up, some previous empirical studies showed that firms with a higher growth rate had good opportunities to engage in EM (Moslemany & Nathan, 2019).

4.6.2.3.2 Cashflow

This study addressed the cash flow from operating activities as a control variable due to its potential relationship with EM practices in Palestine, in which there are several ongoing crises. Lee (2012) has found that a financial crisis motivated companies to inflate reported cash flow from operations to improve financial reporting. In this study, cash flow was measured by scaled the net operating cash flows by total assets (Can, 2019; Dirı et al., 2020; Johari, Saleh, Jaffar, & Hassan, 2009). Johari et al. (2009) documented a negative and significant relationship between CASHFLOW and EM practices in Malaysian listed companies. While Dirı et al. (2020) demonstrated that Cash flow volatility mirrored the uncertainty in operations and, hence, implied a higher likelihood of EM.

4.6.2.3.3 Firm Age

The last control variable addressed in this study is firm age. Firm age is regarded as important, and some argue that long-established firms discover will know how to do things better, as well as to minimize costs and improve quality (Arrow 1962, Ericson and Pakes 1995). Firm age is widely measured by the number of years since a firm was established (Black, de Carvalho, Khanna, Kim, & Yurtoglu, 2020; Fang, 2016; Moslemany & Nathan, 2019; Shan, 2015; Zaid et al., 2020).

Table 4.7: Measurements of the Variables

Variable	Symbol	Measurement	Expected sign
Dependent Variables			
EM	ABSDAC	Absolute Value of discretionary accruals estimated by the Kothari et al. (2005) model	
Independent Variables			
Board Independence	BODINDEP	The percentage of non-executive directors to the total number of directors on BOD	-
Board National Diversity	BODND	Percentage of BOD foreign members to total members of BOD	-
Board Size	BODSIZE	Number of members in BOD	-
Board Meetings	BODMEET	The number of meetings held annually.	-
CEO Duality	CEODUAL	This characteristic is coded "1" if the CEO is the chairperson of the board, and "0" otherwise.	+
Existence of a Remuneration and Governance Committee	BODRE&GC	This characteristic is coded "1" if this committee exists in a company and "0" if otherwise	-
BOD Quality	BODQ_Score	Ranges from 0 to 6 with a higher score indicating higher effectiveness of the BOD	-
AC Size	ACSIZE	Total number of directors on the AC	-
AC Independence	ACINDEP	Percentage of independent directors to the total number of directors on the AC	-
AC Financial Expertise	ACFEXP	Percentage of AC members with financial expertise to total members	-
AC Quality	ACQ-Score	Ranges from 0 to 3 with a higher score indicating higher effectiveness of the AC	-
Ownership Concentration	OWNCON	The percentage ownership of the largest stockholders who own more than 5% of the total equity	+
Institutional Ownership	INSTOWN	Percentage of ordinary shares held by institutional investors	-
Foreign Ownership	FOROWN	Percentage of ordinary shares held by foreign investors	+
Moderating variable			
Political Instability	POLINS	Equals one (1) for the year 2011 to 2014 and zero (0) otherwise	+
Control Variables			
Cash Flow	CASHFLOW	The net cash flow from operating activities scaled by total assets	-
Firm Age	FIRMAGE	The number of years since the firm was established.	-
Growth	GROWTH	The change in total assets scaled by lagged total assets.	-

4.7 Econometric Approach

4.7.1 Software Packages

Several software packages such as SPSS, STATA, and Eviews are used for data analysis to complete empirical analysis of social studies. Among these programs, SPSS is the most widely used program and is suitable for cross-sectional studies. However, it does have limited functions regarding analyzing panel data (Ramadan, 2009). However, Stata and EViews are two statistical packages that can be used for cross-sectional, time series, economics, and panel data research, and they offer several tests that are unavailable in other programs. Therefore, this study used STATA for data analysis. Also, data quality procedures were performed before the hypotheses were tested. When all the data were entered on the worksheets, incomplete data were excluded.

4.7.2 Diagnostic Tests

Many general assumptions must be fulfilled to proceed to multiple regression analysis. Hence, many diagnostics are performed on the data sample to check if the general assumptions of the multiple regressions are achieved to avoid misleading the results. Some of the essential diagnostic tests were undertaken for outliers and normality tests. Besides, multicollinearity, heteroscedasticity, and autocorrelation tests were also made.

4.7.2.1 Outliers and Missing Observations

Outliers are data points that are remarkably different from other data points present in the same data. They eventually influence the conclusions regarding the relationship between the predictors and response variables. Because of these concerns, great care must be taken while dealing with outliers. This concern has to do with

defining, identification methods, and techniques for handling outliers (Aguinis, Gottfredson, & Joo, 2013).

Missing information is another common problem that is encountered while preparing data for modelling. Ignoring missing data will lead to inappropriate results. Missing data could come because of human mistakes or the cost of obtaining data. According to Sharma and Mehta (2013), techniques used in handling missing information include ignoring the presence of missing data or deleting, imputing the missing values with mean, and imputing the missing values using K-nearest neighbor.

4.7.2.2 Normality

Several statistical procedures, such as t-tests, ANOVAs, regression, and correlation, assume that the data obtained come from a normal or gaussian distribution (Field, 2009). With large samples of approximately 30 or 40 observations, violations of the normality assumption will still not cause any major problems (Pallant, 2013). Parametric procedures will still be reliable in this situation even though the data have been proven not to be normal statistically (Elliott & Woodward, 2007). In regression analysis, which this study used, residuals that estimate errors are assumed to follow a normal distribution of mean 0 and standard deviation (Dong & Giles, 2004). Hence, in regression analysis, the validity of the statistical tests is dependent on the residuals' distribution being gaussian.

4.7.2.3 Multicollinearity

Multicollinearity is the interdependency between predictors or independent variables in a multiple regression model (Farrar & Glauber, 1967). It is seen as a problem resulting from a poor experimental design. The presence of multicollinearity

could pose a threat to the specification of the regression model and negatively affect the relationship between the predictors and response in the model. The presence of multicollinearity makes the model matrix becomes challenging to invert, which eventually leads to model estimates having substantial variances.

4.7.2.4 Autocorrelation

Several parametric statistical procedures such as ANOVA and regression analysis assume that the errors are independent, but that might not always be the case. In situations in which the data are collected for a specific entity over time, such as the case of panel data, a possibility exists for autocorrelation among the errors (Huitema & Laraway, 2009). Autocorrelation could have detrimental effects in the model estimates, like standard errors being lower than usual and very high R²s. In a case involving panel data, micro panels are most likely not to experience autocorrelation than macro panels (Oscar, 2007). It is assumed that there is no autocorrelation within each panel unit and across the panel units (Vijayamohanam, 2016). However, many tests exist to test the presence of autocorrelation. Those tests are used to test the null hypothesis that there is no autocorrelation (Oscar, 2007).

4.7.2.5 Heteroscedasticity

Heteroscedasticity refers to a non-constant variance of predicted values from a regression model, and homoscedasticity is the opposite of heteroscedasticity. Linear regression models that allow for the presence of heteroscedasticity are referred to as weighted least square regression. In this instance, weights are given to data points to have high confidence in estimating a linear regression model. Meanwhile, the ordinary

least square model assumes homoscedasticity assumes equal weights to the data points, unlike the weighted least square mode (Knaub, 2007).

4.7.2.6 Panel Data Approach

Panel data strategy is commonly used in much social science research, especially in finance and accounting literature. Panel data is concerning to a pooled cross-sectional and time-series data (Larsen, 2006). Panel data “is the mix of cross-sectional and time-series data” (Gujarati, 2009: P. 591). One main advantage of panel data is the ability to use large data sets, which maximizes the scale of freedom and mitigates the collinearity via independent variables (Hsiao, 2014). Additionally, Ramadan (2009) and Gujarati (2009) noted several benefits of conducting panel data. For instance, panel data leads to the control of individual heterogeneity, raises the degree of freedom, boosts efficiency and variability, supports the accuracy of variable proxies, and mitigates the biases.

Hsiao (2007) and Baltagi (2008) argued that cross-sectional units in panel data offers more variability, lower collinearity among the variables, and increases the degrees of freedom. Furthermore, panel data may reduce multicollinearity problems, also control the individual heterogeneity, and solve endogeneity problems. Panel data is more appropriate for studying the dynamics of adjustment and studying more sophisticated behavioral models than pure cross-section or pure time-series data. Moreover, Panel data is better to measure and identify impacts, which under usual conditions, may be undetectable due to measurement errors. Prior studies in the field of accounting, finance, and economics have widely adopted the panel data methodology (Banker et al., 2002; Bhattacharya et al., 2003; Idris et al., 2018; Ming & Gee, 2008; Osma & Noguera, 2007; Schiehl, 2006; Yunus et al., 2011) Due to the benefits of using

panel data approach and the large number of studies that have used this method, this study adopted panel data approach.

By reviewing the prior studies and based on the benefits of panel data, this research used a panel data approach. The sample size of this research was based on 29 companies over an eight-year period representing 232 observations. Thereby, the proper method for this study was to use panel data methodology to test the influence of the CG mechanisms on the EM in Palestine. Moreover, most prior studies in the area of accounting and finance topics have adopted panel data methodology (Banker et al., 2002; Bhattacharya et al., 2003; Idris et al., 2018; Ming & Gee, 2008; Osma & Noguera, 2007; Schiehl, 2006; Yunus et al., 2011).

Because of previous studies and the benefits of STATA software in analyzing data statistically, this study adopted STATA software package version 14.2, as it is the appropriate software for analyzing panel data regression. Furthermore, STATA software is simple, friendly, and familiar to users.

There are two types of panel data, which are balanced and unbalanced pooled data. Balanced pooled data are obtainable when each cross-sectional unit is available in all periods. Simultaneously, unbalanced panel data occurs when there is some missing or unobserved data (Gujarati, 2009). This study used balanced panel data because no data was missing, and companies with incomplete data were excluded.

4.7.3 Data Under Study

The data was sampled from the PEX to answer the research questions. The data used in this analysis contains information on 20 predictors that are assumed to affect the response, EM. There are 20 predictors used in the panel regression models grouped into 5 common groups of variables. These 5 common groups of predictors included:

1. The control variables used in all models included growth, cash flow, and log transformation of firm age.
2. Characteristics of the board of directors (BOD): size, meetings, independence, nationality diversity remunerations, and governance committee and CEO duality.
3. Characteristics of the audit committee (AC): size, financial expertise, and independence.
4. Characteristics of the ownership structure (OS): Ownership concentration, Institutional ownership, and foreign ownership.
5. In the case of investigating the moderation effect, the political instability, BOD quality, AC quality, and the interaction terms of political instability with each of BOD quality and AC quality were used to estimate the model.

All these predictors were recorded for 29 firms. The characteristics of corporate governance and earning management were recorded for the 8 years from 2011 to 2018 for each firm. Hence, there was a total of 232 firm-year observations.

4.7.4 Analysis of Panel Data

The sampled companies were homogenous according to the simple Ordinary Least Squares (OLS) regression, and thereby, unlike the panel regression technique, OLS does not account for heterogeneity. Jager (2008) investigated whether panel data that were analyzed by using a technique of OLS regression generate different results than when they are analyzed by using the techniques of panel data. Jager's (2008) study showed that the results generated from both techniques were different, meaning that an incorrect deduction would be made by adopting the OLS technique on panel data.

Baddeley and Barrowclough (2009) and Wooldridge (2003) reported that the observations of panel data could not be presumed as separately distributed across the time for the sake of panel data econometric analysis because of unique individual factors that stay stable through time. Therefore, Baddeley and Barrowclough (2009) clarified that the application of simple OLS applied in pure cross-sectional or time-series analysis, which supposes homogeneity, may lead to a misleading inference if estimated on panel data.

The present study used a panel dataset, which has multiple observations for the same economics units in which each item in the equation had two subscripts. The group identifies 'i' (in this study, 29 firms) and within-group index denoted by 't,' which identifies time (in this study, 2011-2018). A panel data regression model in this study may be estimated by pooled or fixed Effect and Random Effects model to test hypotheses H01-H17, which examines the relationship between BOD characteristics, AC characteristics, and OS with EM practice. Several models can be determined to arise from the most general linear representation; these models will be discussed in the following section.

4.7.4.1 Pooled OLS (Ordinary Least Square) Regression Model

An ordinary least squares model can capture the relationship between a single response and one or more explanatory variables (Hutcheson, 2011). The model coefficients are estimated from the best fitted straight line to the data, i.e., having the lowest residuals. In the case of panel data, OLS regression is applied with caution, given that grouping structures exist. However, OLS regression assumes that there is neither a significant cross-sectional nor temporal effect; hence, the model is applied to the pooled

data (Vijayamohan, 2016). Therefore, the intercept and coefficients of explanatory variables are the same for all companies and time periods involved.

4.7.4.2 Fixed Effect Model

Two types of fixed effects models exist, i.e., least squares dummy variable (LSDV) model and within-group regression model. If the opportunity to choose a pooled OLS model fails due to significant cross-sectional or temporal effects, the LSDV model could be considered a possible option. In this case, the errors of the model are estimated as fixed. The LSDV models allow for the estimation of time-invariant individual components by including them as dummy variables into the model (Croissant & Millo, 2019), e.g., a dummy variable for each company or firm. The variable for the cross-sections in a panel data (e.g., firm) is considered unobserved and does not vary with time. However, the disadvantage of using an LSDV model is that it includes too many predictors, making the model matrix difficult to invert due to multicollinearity.

A solution to this problem is to use a within-group regression model. The within-group regression model does not involve estimating the effects of dummy variables. However, the model is estimated using Q-transformation (Baltagi, 2008), and predictors result in a model without an intercept. These Q-transformations involve subtracting the means of each predictor. The estimated model effects are referred to as within-group fixed effect estimator. The within-group fixed effect estimator is based only on the variation within each cross-section or entity from the panel data.

4.7.4.3 Random Effect Model

The main problem with the fixed-effect model is that it results in too many estimated parameters, which eventually causes a loss of degrees of freedom. A solution

to this problem could make the error terms random, unlike the fixed-effect model, which estimates them as fixed. The error terms are assumed to follow a normal distribution of mean 0 and standard deviation. Hence, the model estimates an overall mean via the intercept and individual deviations from the overall intercepts via the error term. The error term can be further simplified as a composite error term into within and between error terms. Hence, the variance of the error terms is the sum of the variance of the within and between components. In case there is zero within variance, the error variance becomes equal to the between component variance, making the pooled regression equal to the random effect model. This is the basis of the Breusch-Pagan test.

4.7.5 Choosing Appropriate Regression Model

Before capturing the relationship under investigation, a need exists to select the right model to do that. First is the need to select between a Pooled OLS model and a random effect model. The test used in making this decision is referred to as the Breusch-Pagan Lagrange multiplier test. This test the null hypothesis that the variances across the cross-sections or entities or units are zero, i.e., no significant difference across the units or no panel effect. Therefore, if the test results in a significant chi-square statistic, then it confirms that a random effect model is preferred over a pooled model and vice versa.

In case the two previous cases confirm random and fixed effect models respectively, then a need exists to use another test to decide which model among them is most appropriate. The test used in making this decision is referred to as the Hausman test (Green, 2008). This tests the null hypothesis that a random effect model is more appropriate versus the alternative hypothesis that the fixed effect model is best.

4.8 Research Models Specification

The statistical models that are used in this research are discussed in this section. Two models were developed to answer the research questions and achieve this research objectives. The first and main model is to study the influence of the characteristics of BOD, AC Characteristics, and ownership structures on EM, while the second model is to explore the moderating effects of political instability on the association between BOD quality, AC quality, and EM in Palestine.

4.8.1 Multiple Regression Analysis

Multiple regression analysis was the statistical method applied in this study. Regression analysis is used to estimate the influence of the independent variables and control variables on the dependent variable (Hair et al., 2010).

$$Y_i = a + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \epsilon_{it}$$

(4.6)

where:

Y_i = Dependent variable.

A = Constant.

X_{i1}, X_{i2}, X_{it} = Independent Variable.

ϵ_{it} = Error.

4.8.2 Regression Analysis for Moderating Effects

Hair et al. (2010) documented that moderating effects happened once the moderator variable changes the shape or strength of the relationship between two or more variables. Gani and Jermias (2006) explained that regression models are a statistical method used in studies that focus on the effect of moderating variables on the

relationship between the independent variable and the dependent variables. Hartmann and Moers (2003) indicated that regression analysis was more appropriate for testing hypotheses that contain moderators. In the relationship of the moderate variable, the dependent variable is affected by the independent variables, and a moderating relationship exists when the influence of the independent variable on the dependent variable varies depending on the value of the moderating variables (Yunos, 2011). The following equation represents the general form of moderating regression analysis:

$$Y = a + \beta_1 X_1 + \beta_2 M_2 + \beta_3 X_1 * M_2 + \varepsilon \quad (4.7)$$

where:

Y = Dependent variable.

A = Constant.

X_1 = Independent Variables.

M_2 = Moderating variable

ε = Error.

4.8.3 Model Specification of the Impact of the CG Characteristics on EM

Below is a mathematical representation to model the direct model. The β s represent the effects of the model, and ε was used to model the errors of the model.

$$\begin{aligned} ABSDAC_{it} = & \beta_0 + \beta_1 GROWTH_{it} + \beta_2 CASHFLOW_{it} + \beta_3 (Firm\ Age)_{it} \\ & + \beta_4 BODSIZE_{it} + \beta_5 BODMEET_{it} + \beta_6 BODINDEP_{it} \\ & + \beta_7 BODND_{it} + \beta_8 BODRE\&GC_{it} + \beta_9 CEODULA_{it} + \beta_{10} ACSIZE_{it} \\ & + \beta_{11} ACINDEP_{it} + \beta_{12} ACFEXP_{it} + \beta_{13} OWNERCONC_{it} \\ & + \beta_{14} INSTIOWNER_{it} + \beta_{15} FOREOWNER_{it} + \varepsilon_{it} \end{aligned} \quad (4.8)$$

where i = firms, t = time periods, $ABSDAC$ = the absolute value of the magnitude of DAC estimated by the Kothari et al. (2005) model, $GROWTH$ = company annual growth, $CASHFLOW$ = cash flow from operating activities, $FIRMAGE$ = firm age since the company being established, $BODSIZE$ = Board Size, $BODMEET$ = Board meetings, $BODINDEP$ = Board Independence defined by no-executive directors in the board, $BODND$ = board Nationality Diversity represent the non-Palestinian members in the board, $BODER&GC$ = Existence of a remuneration and governance committee $CEODUAL$ = CEO-duality, $ACSIZE$ = AC Size, , $ACINDEP$ = AC Independence represent the non-executive members in AC , $ACFEXP$ = AC Financial Expertise, $OWNERCONC$ = Ownership Concentration, $INSTIOWNER$ = Institutional Ownership whether local or otherwise, $FOREOWNER$ = Foreign Ownership, and ε = error term.

4.8.4 Model Specification of the Moderating Effect of Political Instability

There is also a mathematical representation of the moderation model that includes interaction terms to investigate the moderation effects of $POLINS$. The model estimates and error terms are interpreted the same way as the direct model.

$$\begin{aligned}
 ABSDAC_{it} = & \beta_0 + \beta_1 GROWTH_{it} + \beta_2 CASHFLOW_{it} + \beta_3 (Firm\ Age)_{it} \\
 & + \beta_4 BODQUALI_{it} + \beta_5 ACQUALI_{it} + \beta_6 POLINS_t + \beta_7 POLINS_t \\
 & * BODQUALI_{it} + \beta_8 POLINS_t * ACQUALI_{it} + \varepsilon_{it}
 \end{aligned}
 \tag{4.9}$$

where i = represents firm, t = time, $ABSDAC$ = Absolute value of the DAC estimated by the Kothari et al. (2005) model, $Growth$ = company growth, $CASHFLOW$ = cash flow from operating activities, $FIRMAGE$ = firm age since the company being established, $BODQUALI$ = represent BOD quality score ranged from 0 to 6, $ACQUALI$

= AC quality score ranged from 0 to 3, POLINS = Political instability as a moderator variable, and ϵ = error term.

4.9 Chapter Summary

This chapter outlined the general framework of the study, which included the development of hypotheses and how to measure the variables and methods of data collection and statistical analysis. This chapter elaborated and discussed hypotheses development in detail. The study has two sets of hypotheses. The first set is to elaborate on the direct relation between CG mechanisms (the characteristics of BOD, AC characteristics, and the structure of ownership) and EM practices. After that, the chapter discussed the political instability as a moderating effect on the relationship between CG mechanisms (BOD Quality, AC Quality, and Ownership Structure).

This chapter interpreted in detail all the variables that were utilized in this current study. In this study, there are four types of variables. First are the independent variables that contain three groups of variables related to each of the CG mechanisms. Second is the dependent variable EM. The Kothari et al. (2005) model was used to detect the magnitude of EM. Third, the moderating variable was political instability. Finally, the set of control variables included growth, cash flow, and firm age.

The chapter also explained that the sample of the study consists of 29 non-financial listed firms on PEX from 2011 to 2018, and, further, four non-financial companies listed were excluded due to lack of data availability. Finally, this present study adopted the panel data regression method to examine the conceptual framework models and testing the research hypothesis.