UNIVERSITY OF SOUTHAMPTON

FACULTY OF BUSINESS, LAW AND ART

Southampton Business School

The Effectiveness of Internal Corporate Governance Mechanisms and Ownership Structure in Constraining Earnings Management in Jordan

by

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ABSTRACT

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The root of conflict of interest problem arises as a response to the separation between management and ownership in firms, in which firm's agents are motivated to adopt specific actions to maximise their personal wealth at the expense of shareholders. Therefore, various initiatives made by interested groups introduced corporate governance (CG) codes and ownership structure as deterrent monitoring tools to constrain earnings management (EM) behaviours. Motivated by a functionalist research paradigm, this thesis aims to evaluate the current effects of some of the key mechanisms of CG and ownership types in constraining EM decisions over firm's accruals in Jordan.

Taking advantage of the functionalist research paradigm, this thesis adopts a mixed-methodology approach in which a subjectivism and objectivism research positions are used to evaluate the effectiveness of the monitoring mechanisms in constraining EM techniques. Under the objectivist stand, a set of secondary data from 2009 to 2014 explores the relationships between internal CG mechanisms and ownership structure and EM phenomenon estimated by the Modified Jones (1995) model over a sample of 134 non-financial firms listed in Amman Stock Exchange (ASE). In this strand, independent members, external directorships, board size, board meetings and non-duality managers were the main mechanisms selected to evaluate board-monitoring functions. Additionally, this thesis captures the monitoring effects of audit committees (AC) through three main characteristics (AC existence, AC independence and AC meetings). Finally, with regard to ownership structure, this part covers institutional owners, blockholder owners, managerial owners and family firms.

After testing for normality, linearity, multicollinearity and heteroscedasticity and time-fixed effects, the regression results show a significant monitoring tendency for independent board members in constraining EM issue. However, as the number of external directorships occupied by board members increased, the likelihood of engaging

in EM decisions increased significantly. Additionally, active boards (meetings) showed a deterrent monitoring position in reducing the passage of opportunistic behaviours over firm's accruals.

The regression analysis provided evidence that supports institutional theory regarding the existence of a separate AC. Indeed, the main finding claims that Jordanian directors have been responding to the Jordanian Securities Commission pressures in terms of establishing a separate AC in their firms since a positive correlation between EM levels and the presence of AC is documented. Statistically speaking, this thesis found evidence that independent members were inclined significantly to enhance financial reports quality by reducing the prevalence of EM behaviours in Jordan.

Supporting the researcher hypotheses that assumed a significant monitoring role of the concentrated ownership in constraining managers' opportunistic behaviours, only blockholder with at least 5% of firm's outstanding shares were significantly effective in controlling managers' opportunistic behaviours estimated by discretionary accruals. However, and in line with the researcher expectations, family firms were a fertile environment for earnings management.

With regard to the subjectivist approach, this thesis adopted other complementary approaches such as questionnaire and face-to-face interviews to achieve the research goals. Indeed, these approaches seek mainly to explore participants' perceptions to evaluate the controlling functions of the monitoring tools, and further, to shed light on the main techniques used to alter firm's earnings via accruals decisions.

However, with a valid response rate (42.8%) extracted from 320 distributed questionnaires from various respondents (i.e. board members, AC members, external auditors and governmental employees), the participants noted the following techniques as the main choices to alter firm's earnings in Jordan; "altering depreciation policy", "altering account receivable policy" and "altering inventory amounts". In terms of the monitoring tools, in general, the participants suggested ownership mechanisms as a deterrent tool to constrain EM in comparison with CG mechanisms, in which the recorded perceptions revealed weak monitoring effects on EM decisions.

To provide further insights to achieve the research objectives, the researcher interviewed twelve participants selected during the process of administering the questionnaires. The

interviewees indicated favouritism, tribalism and Arab spring as the main obstacles that hindered the CG mechanisms from being deterrent tools to activate the monitoring roles of these mechanisms. In addition, independence issue for both board and AC members is still mere ink on paper since the previous obstacles played a significant role in restricting this issue in Jordan.

It is worth mentioning that, adopting a functionalist research position to achieve the thesis goals through a mixed-methodology approach has helped the researcher to widen the adopted theoretical framework in this thesis, to go beyond the adoption of one theory (agency theory) by considering the effects of the institutional theory, resource dependency theory and stewardship theory.

Key Words: Board of directors, audit committee, discretionary accruals, Jordan.

Table of Contents

List of Tables

List of Figures

DECLARATION OF AUTHORSHIP

I, Alaa Mohammad Mustafa Alqudahdeclare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

The Effectiveness of Internal Corporate Governance Mechanisms and Ownership Structure in Constraining Earnings Management in Jordan

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;

Signed: Alaa Mohammad Mustafa Alqudah ....

Date: ....

Acknowledgment

Firstly, I would like to pass my gratitude to Dr. Oliver Marnet, my main supervisor, for his guidance and support to finish this thesis. His constructive support, recommendations and directions have been the light which enhanced the quality of this thesis. He was supportive and enthusiastic throughout the last year and helped to me to finish this stage in my life. Honestly, it is my pleasure to have been directed and supervised by Dr. Oliver Marnet. Really I felt that he is my brother, not my supervisor. Dr. Oliver, thank you very much for your efforts.

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Dedication

I am very proud to dedicate this thesis to the Jordanian martyrs' who passed away to protect our country, especially the martyrs Muath al kasasbeh and Rashed al zyoud.

Definitions and Abbreviations

Name Of Abbreviation	Symbol
Amman Financial Market	AFM
Amman Stock Exchange	ASE
Audit Committee Existence	ACE
Absolute Value	ABS
Audit Committee Independence	ACI
Audit Committee Meetings	ACM
Big-Four External Auditors	BIGFOUR
Blockholder Ownership	BLCKOWN
Board Meetings	BRDMEET
Board of Directors of the Insurance Commission	BDIC
Board Size	BSIZE
Cash-Flow from Operational Activities	C.F.O
Central Bank of Jordan	CBJ
Chief Executive Officer	CEO
Companies Control Department	CCD
Corporate Governance	CG
Discretionary Accruals	DAC
Earnings Management	EM
External-Directorships	EXTDIRC
Family Ownership	FAMOWN
Firm Size	FSIZE
Firms Performance	ROA
General Assembly Meetings	GAM
Great Arab Revolt	GAR
Independent Members on Board of Directors	IMBD
Institutional Ownership	INSTOWN
International Accounting Standards	IAS
International Accounting Standards Board	IASB
International Auditing and Accounting Standards	IAAS
International Financial Reporting Standards	ISRS
Jordan Investment Commission	JIC
Jordan Securities Commission	JSC
Jordanian Association of Certified Public Accountants	JACPA
Jordanian Dinar	J.D
Leverage Levels	LEVG
Managerial Ownership	MANAGOWN
Net Income	N.I
Non- Discretionary Accruals	NDA
Organization of Economic Cooperation and Development	OECD
Property plant & Equipment	PP&E
Sales Revenue	SALES
Securities Depository Centre	SDC
The Accountancy Profession Law	APL
Total Accrual	TACC
Total Assets	T.A

Chapter 1: Introduction

1.1 Introduction

Firms' stakeholders rely on several indicators to evaluate and monitor corporations' financial and operational performance, including profitability, performance, or dividend growth (Elvin and Hamid, 2016). Of those, a firm's shareholders or other interested parties prefer to use disclosed profits as their tool of measurement (Guo and Ma, 2015; Khalil and Ozkan, 2016). In any economic affairs, the absence of transparent and accurate disclosures may jeopardize stakeholders' decisions (Rad *et al.*, 2016). The inherent problem using that tool is that, in the event of a conflict of interests between a firm's agents and principals, this source of information could be adjusted by managers to achieve specific benefits for a firm's agents at the expense of its principals (Healy and Wahlen, 1999; Chen and Zhang, 2014; Ramadan, 2016). Moreover, because of weak monitoring tools and internal control systems, modern economies have witnessed several failures of highly-celebrated firms across the globe (e.g. Enron, WorldCom, Parmalat, and the global financial crisis of 2008)(Ronen and Yaari, 2008; Jones, 2011). Previous investigations found that the core issue in these scandals centred around earnings management (EM) (Saleem *et al.*, 2016). Therefore, a firm's principals would be better served by keeping this opportunistic behaviour at a minimum. This could be achieved by incurring some costs, known as agency costs, in order to install a solid, monitoring system to minimise management earnings decisions taking precedent over a firm's overall earnings (Mallin, 2011). In other words, the reduction of this behaviour lies in a firm's principals adopting, as an example, corporate governance (CG) mechanisms (Man and Wong, 2013; Chen and Zhang, 2014; Mehrani *et al.*, 2017).

The presence of a sound structure provided by corporate governance mechanisms is expected to improve a firm's financial reporting levels by focusing on constraining opportunistic actions by its managers' (Chen and Zhang, 2014; Zalata and Roberts, 2016). Previously, the presence of weak, corporate governance motivated managers to be opportunistic, which led to deficits in the quality of financial reporting and the destruction of the stakeholders' trust (Man and Wong, 2013; González and García-Meca, 2014).

On that note, Jordan is an emerging market that policy makers and local governments have applied much effort to promote as an attractive environment for investment (Al-

Fayoumi *et al.*, 2010; Abbadi *et al.*, 2016). Nevertheless, several studies have documented the prevalence of the earnings management phenomenon in Jordan caused by a variety of reasons, such weak protection rights and disclosure levels (Halabi, 2009; Qudah, 2011; Abed *et al.*, 2012; Hamdan *et al.*, 2013; Riesheh, 2014; Abbadi *et al.*, 2016; Alzoubi, 2016; Alzoubi and Alzoubi, 2016; Ramadan, 2016). The 1989 Petra Bank scandal, recognized as the biggest scandal within the Jordanian market, was the first crisis to occur. Losses totalled approximately 671 million JD (725 million pounds) (Barmawi, 2007; Qudah, 2011). Then the Jordanian Phosphate Mines Company scandal took place in 2006. According to an investigation by the Anti-Corruption Commission (ACC), the main causes of this scandal were the absence of restrictive and compulsory laws and regulations regarding boards of directors' responsibilities, effective internal control systems and disclosure requirements (ACC, 2010). Losses related to this scandal totalled about 300 million JD (324 million pounds). In addition, the total chairman's salary and bonuses totalled 2 million JD (2.16 million pounds) over three years, an amount considered to be high when compared to other chairmen's salaries in the same sector (Qamwh, 2011).

Interestingly, the costs of previous scandals are considered to be extraordinary in the context of Jordan in comparison, for example, with the Gross National Income (GNI) per capita, which during this period was between 1,610 and 3,820 per capita (Shanikat and Abbadi, 2011; The World Bank, 2016). The most recent scandal, the Fictitious Stock Exchange scandal of 2010, affected more than 100,000 people and entailed losses in excess of 430 million JD (465 million pounds) (Tamimi, 2014).

The Jordanian regulators taken note of such scandals and, accordingly, they have improved the current laws and regulations and introduced corporate governance codes (Abbadi *et al.*, 2016; Monsif Azzoz and Khamees, 2016). However, the responsibility of issuing CG codes for banks, insurance firms and firms listed on the Amman Stock Exchange (ASE) lies with the Central Bank of Jordan (CBJ), the Securities Depository Center (SDC) and the "*Board of Directors of the Insurance Commission*" (BDIC). CG codes in Jordan focus on four main pillars: boards of directors' tasks and responsibilities, general assembly meetings, shareholders' rights and disclosure and transparency issues. In other words, the main incentives to activate CG codes in Jordan were to protect shareholders' rights (minority owners) and to enhance investors' confidence in the Jordanian investment environment, in order to appear more attractive internationally (SDC, 2009; Abed *et al.*, 2012; Al Sawalqa, 2014). Securities law, company law and, especially, Organization of Economic Cooperation and Development (OECD) principles were the main sources used to legislate CG guidance in Jordan (SDC, 2009). Thereafter, the '*Bank Directors' Handbook of Corporate Governance'*, which explains the necessary rules and standards to improve and enhance CG and risk management within the banking industry, was issued in June 2004 (Central Bank of Jordan, 2004). In 2006, BDIC issued a guideline for insurance firms known as **'***Corporate Governance Instructions and the Amendments Thereof'* (Commission, 2006). CG codes focusing on the aforementioned four main pillars were activated in 2009 by the SDC for firms listed on the ASE.

previous studies, such as Chen and Zhang (2014) and Lee and Lee (2014), have encouraged future researchers to carry out further investigations to examine the effects of corporate governance mechanisms on constraining managers' opportunistic decisions within emerging-markets, since these markets have different institutional settings from developed-markets (Owusu and Weir, 2016). Therefore, this study aims to fill this gap in the earnings management and corporate governance literature by using a mixed methodology approach to investigate the effectiveness of corporate governance code in constraining earnings management behaviour in the Jordanian. To the researcher's knowledge, this thesis is one of the first studies that employs this type of methodology focusing on Jordan after the activation of the CG code in 2009.

1.2 Research Problem

Over the past three decades, the Jordanian market has suffered from several financial scandals, such as the Petra bank scandal in 1989 and the Jordanian Phosphate Mines Company scandal in 2006. As a result, significant improvements within the laws and other regulations have been issued by the CBJ and the SDC. Examples of these improvements are the Securities Law of 2002, which issued a clear directive for listing and trading securities on the ASE, the 2004 mandate that listed firms must follow disclosure directives and, finally, the activation of CG codes for listed firms in 2009 (Central Bank of Jordan, 2004; SDC, 2009). These corrective actions were introduced to protect the Jordanian market and shareholders' rights, since previously Jordanian managers were not inclined to adopt the Jordanian regulations efficiently in terms of disclosures requirements or to implement the laws to protect shareholders' rights (Al-Fayoumi *et al.*, 2010; Shanikat and Abbadi, 2011; Abbadi *et al.*, 2016).

In issuing CG codes, the SDC aimed to cope with the effects of globalisation, openness and global competition. Protecting shareholders' rights in order to guarantee an adequate return on their investments was an overarching goal, as was presenting the Jordanian economy as being an attractive target for local and foreign investors (SDC, 2009). Based on the previous discussion, and after a thorough review of the previous literature, this study concentrates on exploring the monitoring roles of internal CG mechanisms and ownership structures in constraining the use of EM, estimated by discretionary accruals, after the CG code was implemented in 2009. Consequently, the following sub-problems arise:

Sub-problem 1

To investigate empirically the monitoring roles of the internal CG mechanisms concerning boards of directors and audit committees on restricting the occurrence of EM post CG code implementation in 2009.

Sub-problem 2

To investigate empirically the effects of ownership types in restricting EM practices over the study period.

Sub-problem 3

To determine the most commonly used techniques for accruals manipulation that have been used within the Jordanian context over the study period.

1.3 Research Aims and Objectives

There are two primary aims of this thesis: to evaluate the effectiveness of the monitoring mechanisms, represented by internal CG mechanisms and ownership structures, on restricting the use of EM within the Jordanian context after the CG code was implemented in 2009, and to determine the techniques employed most commonly by Jordanian firms to alter firms' accruals.

To achieve these aims, the researcher identified the following sub-objectives:

- To investigate the monitoring functions of boards of directors and audit committees in constraining accruals manipulation.

- To investigate the roles of the different types of ownership in constraining accruals manipulation.
- To determine the forms of accruals manipulation that have been employed by Jordanian managers.

1.4 Research Questions

Three main research questions have been explored in order to achieve the above-mentioned aims:

- In terms of boards of directors' independence and audit committee characteristics, do the internal CG restrict EM prevalence in Jordan?
- Do the different types of ownership restrict EM prevalence in Jordan?
- What were the most commonly used accruals approaches used in Jordan from 2009 to 2014 from different perspectives?

It was hoped that the first two questions would become more obvious through answering the following sub-questions.

1. Does the existence of independent members on a board of directors restrict the EM phenomenon?
2. Does the separation of the chairperson and CEO positions restrict the EM phenomenon?
3. Do multiple directorships of a board's members restrict the EM phenomenon?
4. Does the board size restrict the EM phenomenon?
5. Does the frequency of board meetings restrict the EM phenomenon?
6. Does the existence of an audit committee restrict the EM phenomenon?
7. Does the existence of independent members within the audit committee restrict the EM phenomenon?
8. Does the frequency of audit committee meetings restrict the EM phenomenon?

In addition, the following questions were used to investigating the impact of ownership structure on the use of EM:

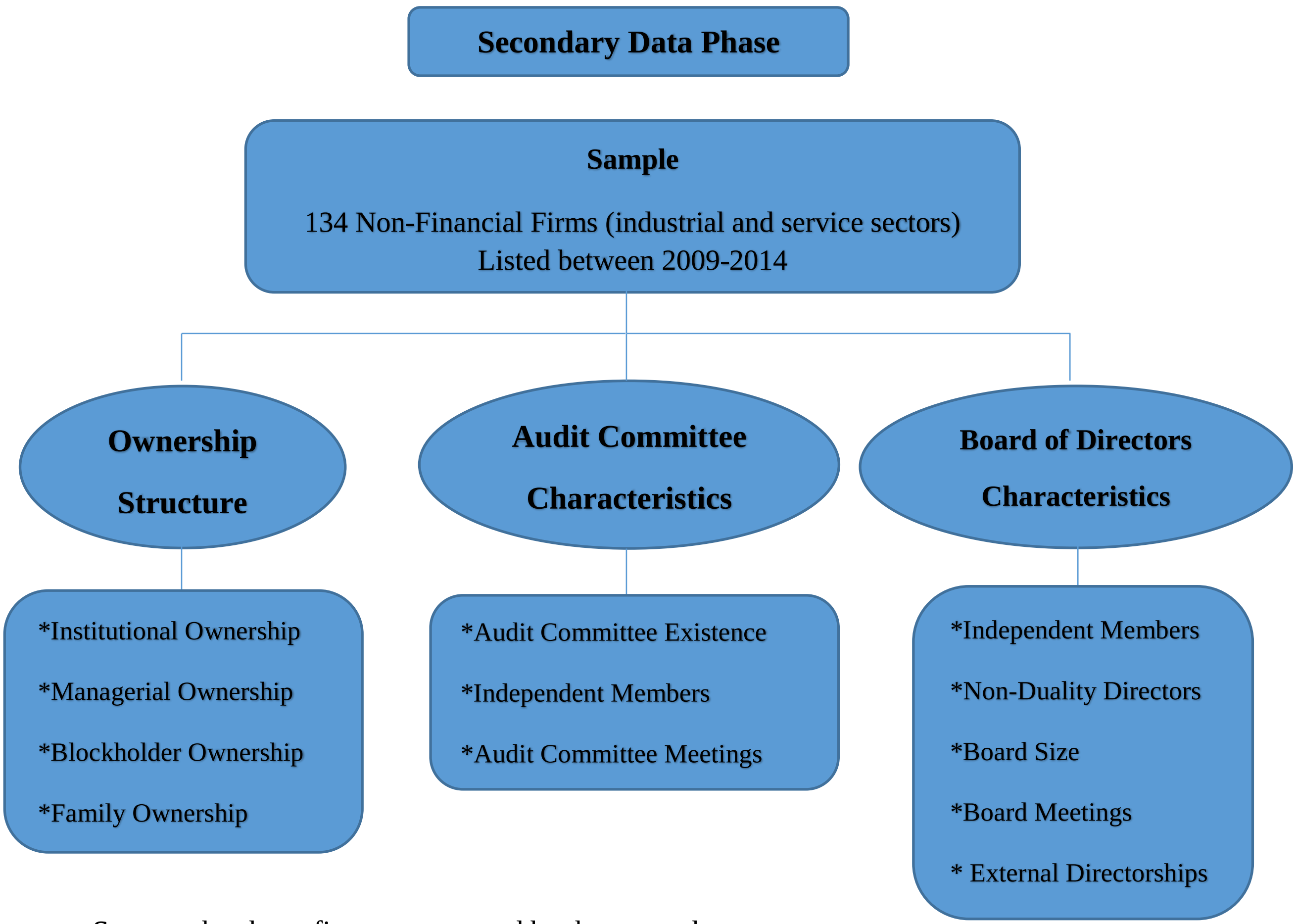
1. Does the existence of institutional ownership restrict the EM phenomenon?
2. Does the existence of managerial ownership the EM phenomenon?

3. Does the existence of blockholder ownership the EM phenomenon?
4. Does the existence of family firms the EM phenomenon?

1.5 Research Scope

This thesis explores the impacts of adopting CG mechanisms for the use of EM by firms listed on the ASE in Jordan. Several sub-objectives have been identified namely, to determine the role of ownership types in monitoring and controlling firms' activities in order to restrict EM, to identify EM techniques used by Jordanians managers, and to determine whether the current CG code in Jordan needs specific adjustments to protect the national economy and shareholders' rights from manipulation. Figure 1-1, below, describes the research scope in detail.

Figure 1-1 Research Scope (Secondary Data Phase)



Source: the above figure constructed by the researcher.

The cited objectives form the starting point for defining the research scope. The Jordanian market has been classified as an emerging market in which CG is considered to be a new area of research. This study covers the most significant CG mechanisms, which, based on previous literature, were expected to play a crucial role in constraining the use of EM (Chen and Zhang, 2014; Khalil and Ozkan, 2016). For example, some mechanisms covering characteristics of firm's boards were expected to play an important role in enhancing and improving firms' monitoring activities in order to run the firms efficiently. Under the general recommendations of the Jordanian CG code, board independence is represented by the following mechanisms: the presence of independent non-executive directors (IND), Chief Executive Officer (CEO) duality, external directorship of a board's directors (EDBD), board of directors meetings (BDM) and, finally, board of directors size (BDS). Audit committee (AC) characteristics are defined as the existence of an audit committee (ACE), independent members within an audit committee (IMAC) and, finally, audit committee meetings (ACM). These characteristics were selected because the establishment of AC was voluntary before activation of the CG code in 2009. Shanikat and Abbadi (2011) reported that most of the Jordanian firms listed on the ASE did not have a separate AC in their firms' structure prior to 2009.

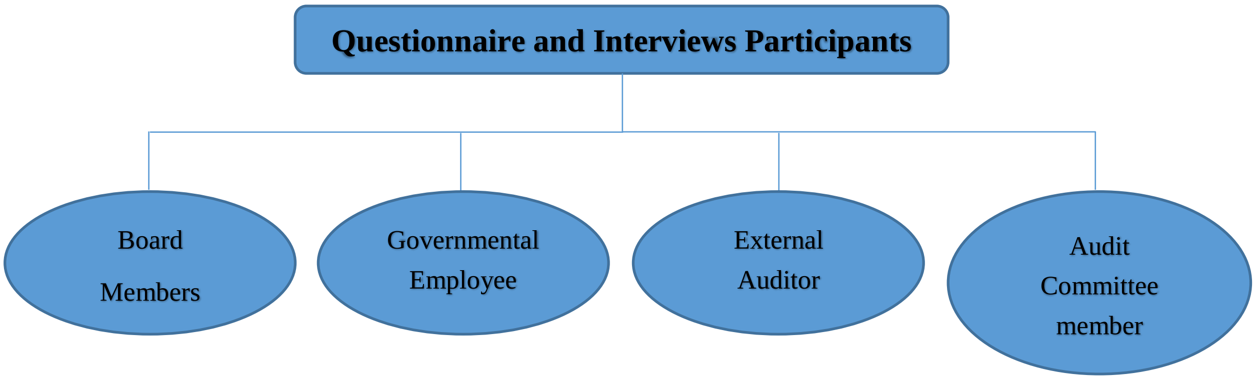
This study also covers ownership structure, which was expected to play a significant role in hindering managers from practicing earnings management. In this regard, institutional investors (INST), blockholder investors (BLK), managerial ownership (MANG) and family firms formed the corporate ownership structure.

A group of control variables—return on assets (ROA), firm size (FS), leverage (LEV) and the big-four auditors (BFA)—will be used to capture the effects of adopting CG code mechanisms on the prevalence of earnings management.

The sample used in this study comprised 134 non-financial firms listed on ASE between 2009 until 2014, and the data obtained from them was used to provide answers regarding the effects of the CG mechanisms and ownership structure on reducing the prevalence of opportunistic managerial behaviour in Jordan.

In terms of the supplementary approaches used in this thesis, the researcher also used questionnaires and face-to-face interviews to achieve the above-mentioned objectives, since relying on the secondary data alone would not have provided sufficient data to achieve the research goals. Therefore, the researcher targeted a sample of boards' members, AC members, external auditors and regulators to gather their perceptions regarding the research problem. Figure 1-2, below, explains the participants selected to achieve the research goals.

Figure 1-2 Questionnaire and Interview Participants



Source: the above figure constructed by the researcher.

1.6 Research Structure

In order to answer thesis questions, the researcher has prepared eight chapters as follows. The following figure (3-1) summarizes the thesis structure in detail. The goal of the first chapter has been to identify the research problem, the research aims and objectives, the research questions and the scope of the research.

Chapter two offers general information about the Jordanian environment. It explains the theoretical background of the Jordanian context and covers an overview of the Jordanian context, its controlling bodies, and the process of enacting CG in Jordan. The chapter's final section will shed light on corporate ownership map in Jordan.

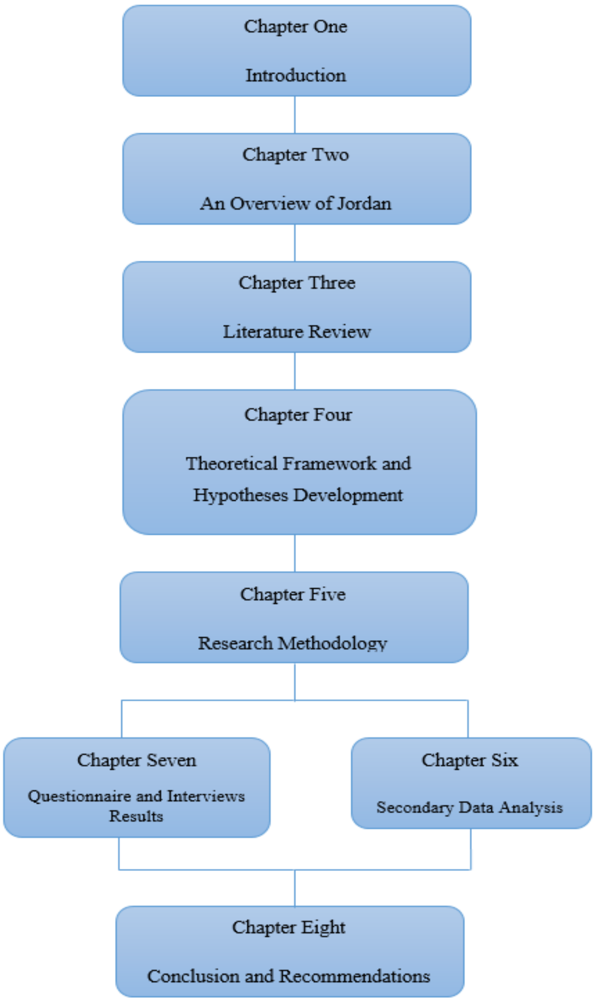
Chapter three reviews previous investigations regarding board of director's characteristics, audit committee characteristics and ownership structures in constraining the EM issue. In particular, this chapter starts by explaining the EM definitions and approaches mentioned in previous studies. While, the remainder of this chapter reviews previous investigations which have explored relationships between the EM issue and internal CG mechanisms and ownership structures.

Chapter four provides a comprehensive review of the CG theories used in this research to formulate the main hypotheses in this thesis. This section discuses, agency theory, institutional theory, stewardship theory and resource dependency theory. Additionally, this chapter illustrates the process of developing the research hypotheses based on previous theories and previous studies.

The fifth chapter discusses the research philosophies and research paradigms that are directly related to the research problem. In addition, this chapter reviews research methodologies in detail. The data collection process for each sub-method also is explained in-detail, including the sampling process, the data source for each method, variables measurement and explaining the main research model.

However, chapters six and seven present the main results extracted from the secondary data analysis and the questionnaires & interviews, respectively. Chapter eight summarizes the thesis's findings, conclusions, and suggestions for future research, limitations and its recommendations.

Figure 1-3 Thesis Structure



Source: the above figure constructed by the researcher.

Chapter 2: The Jordanian Background

2.1 Introduction

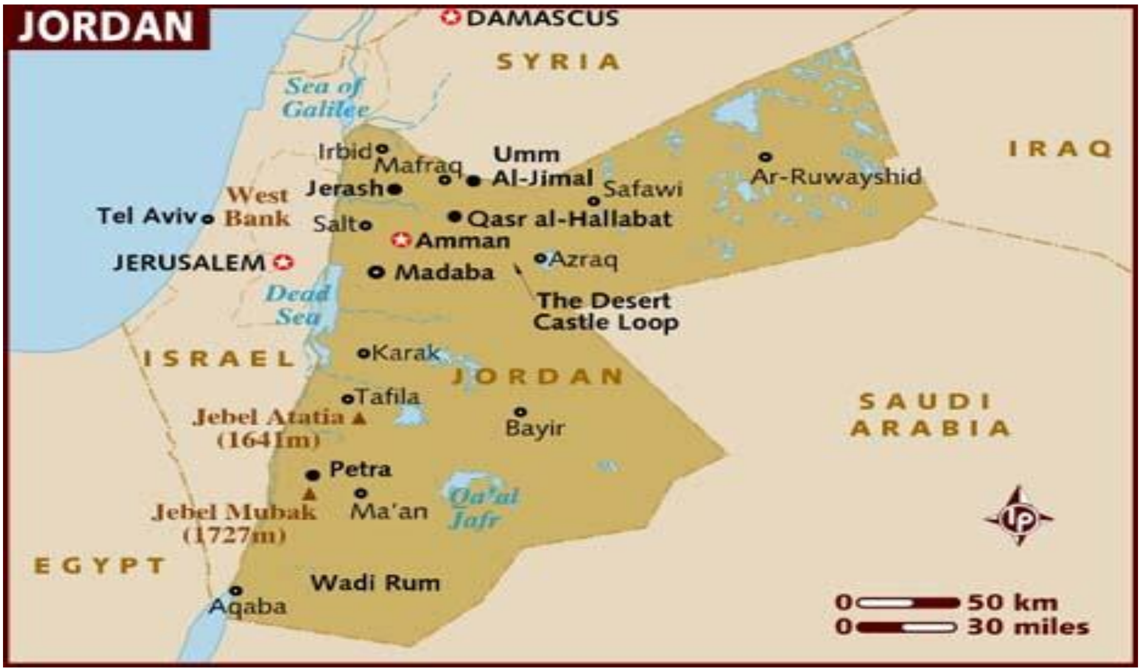
Chapter one has explained the thesis structure concerning research problem, research aims and objectives, research questions, research scope and research structure. This chapter describes the Jordanian market in order to provide a general framework of the Jordanian setting. The chapter covers the following: the general background regarding the Hashemite Kingdom of Jordan, the process of enacting corporate governance (CG) codes in Jordan and the provision of a set of examples about earnings management (EM) prevalence in Jordan.

Section 2.2 provides a brief description to the Hashemite Kingdom of Jordan, Section 2.3 offers detailed information about the Jordanian monitoring and regulatory bodies. Section 2.4 explains the main important laws in Jordan. Section 2.5 offers a brief summary of ownership structures in Jordan. EM prevalence is discussed in section 2.6, section 2.7 provides detailed information about the process of enacting CG codes in Jordan. Finally, section 2.8 summarizes the chapter.

2.2 The Hashemite Kingdom of Jordan: An Overview

The Hashemite Kingdom of Jordan is a less-developed country located in the Middle-Eastern region of western Asia. In the 1920s, the Bedouin referred to Jordan as the "Emirate of Transjordan". This emirate was ruled by Sherif Al-Hussein bin Ali, who played a crucial role in firing the first bullet of the Great Arab Revolt (GAR) in 1916, effectively ending the Ottoman Caliphate over the Arab territories. Of equal importance to the Emirate of Transjordan was the year 1922, when the Council of the League of Nations proclaimed it as a country that submitted to British mandates (Rogan, 2002). However, the current situation of the Hashemite Kingdom of Jordan history back to the 25th of May 1946, when Al-Hussain Bin Talal declared the independence of the Emirate of Transjordan from British rule. Therefore, this emirate became the Hashemite Kingdom of Jordan (Joffé, 2002). Interestingly, Jordan is also located at the lowest sea point in the world, and is iconified by the "Dead Sea". The Dead Sea shores are located 429 metres under sea level. Furthermore, 81% of the overall land area of Jordan is desert (Teller, 2002).

Figure 2-1 Map of the Hashemite Kingdom of Jordan



The above figure presents that the Hashemite Kingdom of Jordan is located to the west of the Asian continent, with a total area of approximately 89,287 km^2. From the east and south, the Saudi Arabia Kingdom borders Jordan, whilst the Syrian Arab Republic borders it from the north.

In the north-east it is bordered by the Republic of Iraq, and both Israel and its West Bank are located on the western borders. According to a recent census taken by the Department of Statistics in 2015, its total population is approximately 9.5 million people (D.O.S, 2015). The Jordanian coin is the “Dinar” and one Dinar is equivalent to .98 sterling pounds (C.B.O.J, 2016). Jordan is an Arabic country and it uses this language extensively. However, the English language is used widely as a medium for teaching in governmental universities (Al-Akra *et al.*, 2009).

Jordan is controlled by a royal system that is limited to the Hashemite family members. Through the existence of this system, the king holds excessive legislative and executive powers to oversee and control Jordan matters. In addition, the king has the authority to appoint political and military leaders, such as the prime minister, the Jordanian senate members and the commander of the Jordanian armed forces. However, the Jordanian people are directly engaged in electing parliamentary deputies (Parliament, 1952).

Since the Hashemite Kingdom of Jordan was under British mandate until the middle of the 1940s, the local regulations and legislations governing its economy, military and society matters have been strongly influenced by British legislations. In the present day, Jordan is suffering from a scarcity of natural and financial resources (Qudah, 2011), which forces the local people to rely on the agricultural sector to secure their basic needs. Therefore, the Jordanian economy is considered to be a tax-oriented economy, relying mainly on taxes, customs fees and tourism revenue, which collectively represent approximately 55% of the government's total revenue (GBD, 2016).

However, the local governments in Jordan carried out several improvements to enhance its regulations and laws, specifically the Jordanian Constitution. This constitution has introduced deterrent statutes to organize the business markets in order to improve the Jordanian financial market. It also mandates societal laws to offer life security to the Jordanian people. For instance, the Jordanian government has created a separate body, known as the Jordan Investment Commission (JIC), which tries to promote Jordan as an attractive destination for external investors, through providing sufficient facilities and services to guarantee a smooth flow of such investments (JIC, 2016). Furthermore, the Jordanian regulatory bodies are carrying out continuous amendments to the current laws and regulations to keep up with the developed markets and, recently, this has been achieved by enacting corporate governance codes to cover banks, insurance companies and listed firms in the Amman Stock Exchange (ASE).

To sum up, the Jordanian government, especially during the reign of King Abdullah II bin Al-Hussein has devoted extensive efforts to enhance the Jordanian economy, either by adjusting its current rules or by legislating new rules to keep up with developed markets. However, and since the main feature of the Jordanian context is scarcity, these developments are considered very good and efficient, to some extent, to enhance the Jordanian financial market and to promote the Jordanian market as an attractive investing destinations for both local and foreign investors (Qudah, 2011).

2.3 The Jordanian Regulatory Bodies

This section explains the monitoring roles of the different regulatory bodies in Jordan, specifically, the Jordan Securities Commission (JSC), Amman Stock Exchange (ASE), Securities Depository Centre (SDC) and Companies Control Department (CCD).

2.3.1 Jordan Securities Commission (JSC)

The Jordanian government created the JSC in 1997 as an official institution enjoying independent legal status, and with financial and administrative independence from other governmental institutions. The JSC reports directly to the Jordanian prime minister. Its main responsibilities are to monitor and control the Jordanian capital market in order to protect shareholders' rights, to create a suitable investment environment for investors, to protect dealers' rights, and to enact appropriate laws and legislation to enhance market transparency and disclosure levels (JSC, 2016). In other words, the JSC aims to develop the Jordanian capital market by relying on international accounting standards to encourage market fairness, creditability and attractiveness. Five qualified and independent full-time members govern the JSC, including the chairperson and his/her deputy. The JSC board is appointed by direct recommendation by the Jordanian prime minister, and such an appointment also needs a royal decree. However, to guarantee commission independence, Jordanian law clearly prohibits commission members from participating in any direct or indirect financial or commercial activities that derive benefits from the Jordanian capital market. Furthermore, JSC members have to disclose their (and their relatives') ownership of securities. In 2009, the JSC introduced a corporate governance code for companies listed in the ASE.

The JSC has the authority to issue and enact the required laws, rules and instructions to provide smooth and appropriate adoption of commission regulations. Furthermore, it has the authority to supervise and monitor the ASE, SDC, public shareholding firms, financial service firms and investment and mutual fund firms. To fulfil the commission aims and objectives, the JSC's responsibilities can be summarised as follows (JSC, 2016):

1. Issuing the required laws and rules to upgrade the Jordanian capital market.
2. Enacting appropriate laws and regulations to organize ASE activities.
3. Enhancing market transparency by issuing compulsory disclosure rules and ensuring firms' compliance with these rules.
4. Overseeing and controlling all transactions within the Jordanian capital market.
5. Imposing deterrent penalties on violating firms.
6. Organizing stock issuance and monitoring trading transactions in the ASE.

In summary, the JSC plays a crucial role in improving and developing the Jordanian capital market by issuing required regulations and legislations, such as the CG code, to enhance firm and market performance. Furthermore, one of the most important roles of the JSC is to protect domestic and foreign investors. Such a role creates a stable, solid and secure market for all of these investors.

2.3.2 Amman Stock Exchange (ASE)

The ASE was established in 1999 as a non-profit institution with financial and administrative autonomy. This stock exchange was called “Amman” in honour of the Jordanian capital. The JSC has delegated the responsibility of securities monitoring to the ASE. An independent board, consisting of seven members nominated directly by the Jordanian prime minster, controls the ASE. Furthermore, ASE membership encompasses all licenced brokerage companies in Jordan and any other institutions determined by the JSC board (A.S.E, 2016).

The Jordanian public shareholding firms initiated the trade of their shares in 1931, before the opening of the Jordanian capital market. The first shares to be widely traded in that period were related to the Arab Bank, followed by Tobacco firm shares. Electric company shares were traded in 1938 and the shares of the Jordanian Cement Factory in 1951. Before setting up a formal agency to organize share trading, the responsibility of monitoring share trading was directed by both non-specialised and official offices. However, as a response to the rapid growth of the Jordanian economy, the number of domestic and foreign firms increased significantly. Thus, in 1975 and 1976, the Jordanian Central Bank, supported by the cooperation of the World Bank undertook intensive and significant studies to draw up the general framework of the ASE. Their efforts produced provisional law No. 31 in the year 1976, and in this period, it was called “Amman Financial Market (AFM)”. Thus, the legislative bodies in Jordan undertook a significant resolution in 1977 to nominate AFM committee members, who were appointed from and the 1 January 1978 (Al-Akra *et al.*, 2009; A.S.E, 2016). In 1999, another council of ministers decided to establish the ASE in its current condition.

The total number of listed firms registered by the ASE has increased significantly from 66 firms in 1978 to 240 firms in 2014. In financial terms, the total amount of traded shares has increased from 9.7 million J.D. to 3.00 billion J.D in 2014. The main reason for this increase, in addition to the significant increase in the number of firms registered, is privatisation. In the past twenty years, privatisation by the Jordanian government has led to increases in diverse ownership structures, including family-owned and private firms.

2.3.3 Securities Depository Centre (SDC)

In 1997, the Jordanian market witnessed the establishment of the Securities Depository Centre (SDC) as a public utility foundation controlled by the Jordanian Securities Law of 1997. The SDC board of directors comprises seven members, four of which are directly elected in the general assembly of the SDC, with the JSC selecting the other three members. The SDC board consists of three members who represent the Jordanian private sector, two members who represent the public shareholding firms, and two members who represent the Jordanian brokers and custodians. Like any other Jordanian financial institution, the SDC has legal status with independent financial and administrative positions. According to the Securities Law of 2002, the SDC is considered to be the only institution that has the power to perform the following actions:

1. Organize the process of securities registration.
2. Organize the process of securities deposition.
3. Organize the process of transferring and securing securities ownership.
4. Organize the process of securities clearance and settlement.

In order to perform these tasks efficiently, the SDC has established a specific registry centre, consisting of all authenticated shareholders, to document all settlement processes within the Jordanian financial market. Furthermore, the SDC has electronic records for all listed firms, providing a solid database to enhance SDC monitoring roles.

The SDC centre is considered to be one of the most important national centres in the Jordanian capital market, since this centre keeps systematic records for all registered shares and their ownership. The Jordanian government, represented by the prime minister, has given the SDC, ASE and JSC the responsibility of developing the Jordanian capital market to make it the favourite destination for foreign investors. In addition to the tasks and responsibilities listed above, the SDC has further crucial tasks, such as:

1. Overseeing and controlling SDC member activities concerning SDC supervision.
2. Guaranteeing a smooth and efficient adoption of SDC rules to generate the expected benefits from these enactments.

3. Offering professional opinions and suggestions to improve the current regulations, thus providing a safer investment environment for investors.
4. Establishing a specialised centre interested in managing and supervising specific issues related to the guarantee fund.

Furthermore, the SDC has made a pivotal decision by numbering all share books listed in the ASE based on "International Security Identification Numbers (ISIN)" recommendations.

2.3.4 Companies Control Department (CCD)

The Companies Control Department (CCD) is a national institution that was established in the Hashemite Kingdom of Jordan by virtue of the Companies' Law No. 44 in 2003, directly under the supervision of the Minister for Industry, Trade and Supply. Diverse important responsibilities have been given to this department to improve the Jordanian market. Some of these duties are:

1. To register the different types of firms in the Hashemite Kingdom of Jordan.
2. To carry out crucial legal monitoring steps to increase market transparency and creditability.
3. To oversee and record all procedures regarding the increase and/or decrease of firms' capital.
4. To monitor all procedures regarding any change that could be taken to modify companies' contracts.
5. To liquidate and/or de-list companies.
6. To attend all General Assembly Meetings for the listed firms in the ASE.

Furthermore, this department aims to develop efficient monitoring mechanisms to guarantee the efficient adoption of corporate governance recommendations and to enhance the national economy, by offering the required laws and regulations that play a significant role in protecting investors' rights.

2.4 An Overview of the Jordanian Legislations and regulations

In recent years, the Jordanian financial market has witnessed significant levels of development and growth. As an emerging market, the Jordanian market experienced different obstacles in terms of the availability of deterrent regulations, specifically with respect to disclosure laws and protection laws. This led the Jordanian market to struggle with limited flow of the published information needed by several shareholders and weak protection rights (Qudah, 2011; Almajali *et al.*, 2012). Accordingly, the Jordanian regulators decided to devote more efforts to enact and reinforce the Jordanian laws, to provide accurate and creditable information to firm's interested users. The government also proceeded to support firms' internal control systems to improve each firm's performance. It is worth mentioning that the Jordanian regulations and laws have been affected significantly by the British legislations, since Jordan was under British mandate until 1946. However, many regulations, laws and directives organize and monitor the financial market environment in Jordan. This section introduces three of the most pivotal laws within the Jordanian financial market. These three laws are expected to have a noticeable effect role in shaping the necessary regulations to organize a firm's organisational structure and its transactions.

2.4.1 The Companies Law No. 22 of 1997And its amendments for the Year 2006

Among the different Jordanian laws and regulations aimed to organize the financial capital market in Jordan, this Law seems to be the most significant. Interestingly, the earlier British mandate has played a crucial role in forming the Jordanian Companies Law. Most Companies law instructions have been derived from the British legislations and, in some parts, the British regulations have been quoted literally. In 1964, the first draft of Jordanian Company Law was enacted by a royal order to build up solid and efficient standards for all Jordanian firms to adopt and follow. Continuous amendments and modifications have been added to the original law to keep up with the growth rates of the Jordanian market, with the law arriving at its current version, which is "The Companies Law No. 22 of 1997 And its amendments for the Year 2006".

The Companies Law regulations explain the basic and required regulations for Jordanian firms during their foundation processes. This law explains in detail the management of shareholding companies, organizing the issue of issuing firm's shares, increasing or decreasing firm's capital and organizing firm's accounts (Securities Depositary Center, 2009). In all cases, all the Jordanian firms have to adopt and act under the general umbrella of this law to avoid legal punishments, and to further develop the Jordanian financial market.

2.4.2 Taxation Law in Jordan

Jordan, as an emerging market, is located in the Middle-East. With limited financial and natural resources, the Jordanian governments have resorted to legislating several types of taxes and custom fees to cover the shortage in terms of its revenues. Therefore, the governments in Jordan have paid close attention to enhancing restrictive tax laws to avoid any evasion, or planned evasion, of payment of taxes, and to collect sufficient amounts of taxes to guarantee the survival of Jordan (Al-Naimat, 2013). The two main types of tax in Jordan are direct and indirect taxes.

The enactment of tax laws in Jordan started in 1951, and taxes have been collected under the legal umbrella of Tax Law No. 50 (1951). Throughout the period from 1951 until 2017, the taxes laws in Jordan have witnessed several developments, but the core of these laws have been based on Tax Law No. 57 (1985). In general, the main source of tax collection by the Jordanian government has been through indirect taxes. Governmental motivations have been the main criteria to determine the main tax ratios in Jordan. Additionally, in recent years, these ratios have been subjected to various changes connected directly to sector type (operational activities). The following table summarizes the main ratios:

Table 2-1 Tax Rates of the Jordanian sectors in Amman Stock Exchange (2014/2015)

Number	Sector Type	Tax Ratio
1.	Industrial Sector	14%
2.	Bank Sector	35%
3.	Telecommunications , electricity and other financial institutions	24%
4.	Other Sectors	20%

However, Tax law No. 34 (2014) details some expenses that can be deducted from a firm's earnings to reduce the overall taxable profit. Some of these expenses are depreciation and amortisation expenses. Indeed, such expenses have enabled opportunistic managers to take advantage of these deductions to practice discretion over firms’ accruals, in order to pay less tax to the government (Healy and Wahlen, 1999; Ronen and Yaari, 2008; Jones, 2011).

2.4.3 Accounting and Auditing Standards

Based on the Companies Law (1997), all listed firms in the ASE are under the supervision of the JSC, and all financial accounts have to be prepared in accordance with the

International Financial Reporting Standards (IFRS). These requirements clearly establish the type and amount of disclosed information to enhance market transparency. Furthermore, all listed public shareholding firms have to adopt International Auditing and Accounting Standards (IAAS) under the supervision of the JSC. In order to enhance transparency, the Jordanian Disclosure Directives No. 76 for the year 2002 asks all public shareholding firms to submit their audited annual reports within a three-month period after the end of a firm's fiscal year. Furthermore, a semi-annual report should be published within a specific period, not exceeding 30 days after the half-end of fiscal year. In addition, separate detailed guidance has been published within this law to illustrate the legal channels for submitting a firm's information regarding their trading transactions.

2.5 The Financial Professions in Jordan

In general, financial careers, especially in accounting and finance, were not the first choice for Jordanian students. Indeed, most of them have preferred to study different majors, such as medicine or engineering. However, this classical thinking has changed to support young students to practise financial professions (Al-Farah *et al.*, 2015). This means that, such professions are considered to be a new phenomenon in Jordan, in comparison to the global markets (e.g. U.S. and U.K.) which promote such careers as being superior (Alghamdi, 2012). However, the Jordanian regulators paid extensive attentions to organize these professions in Jordan during the last fifteen years. In 2003, a detailed law called "The Accountancy Profession Law (APL) 73/2003" was enacted to regulate the occupation. One of APL's achievements was establishing a specific "High Council for Accounting and Auditing" directed and monitored directly by the Minister for Industrial, Trade and Supply. Furthermore, the foundation of the "Jordanian Association of Certified Public Accountants (JACPA)" improved the accounting profession in Jordan. Additionally, it guaranteed the full adoption of accounting and auditing standards, consequently securing the Jordanian national economy and enhancing financial reporting quality(Al-Farah *et al.*, 2015).

Nowadays, the Jordanian market has more than forty audit offices that have permission to provide their accounting and auditing services to the listed firms in the ASE. Some of these offices are directly affiliated with and related to the "Big-Four" auditing offices.

2.6 The Main Types Of owners in Jordan (Ownership Map)

Agency theory clearly states that the separation between management and ownership creates a direct conflict between agents and principals (Jensen and Meckling, 1976). Therefore, in some cases, agents may direct their efforts to maximise their personal benefits instead of achieving their principal's goals (Chen and Zhang, 2014). Hence, the presence of a good structure of a firm's ownership is expected to play a monitoring role between the principal's and agent's goals; thus, the agency problem costs may be reduced(Alzoubi, 2016). However, the Jordanian ownership map experienced significant changes over the last fifteen years, caused by activating the "*The Jordanian Economic and Social Transformation Programme*" in 2001, by royal decree issued by King Abdallah II Bin AL-Hussain. The vision of this programme was "*to enhance the welfare of the Jordanian people and propel economic growth to higher and sustainable levels*" (MPIC, 2001). Consequently, the Jordanian government has made significant privatisation decisions, which have had a crucial effect on reducing the amount of governmental shares in most of the Jordanian leading utility firms. Thus, new categories of ownership have emerged in the Jordanian market, such as managerial, institutional and blockholder ownership. Before 2005, the dominant ownership categories were restricted mainly to family and government ownership (Alsharqtli, 2010).

To data the Jordanian market has lacked a comprehensive study investigating hoe the various types of ownership enhance the quality of financial reports, to improve the Jordanian economy. However, there was a study carried out by Al-Fayoumi *et al.* (2010) that investigated the ability of ownership categories to constrain accruals manipulation between 2001 and 2005. Their results indicated insignificant monitoring roles of institutional and blockholder owners in restricting accruals manipulation. Furthermore, comprehensive conclusions about the ownership structure in Jordan have been made by Shanikat and Abbadi (2011); Abed *et al.* (2012); Al-Amarneh (2014) who clearly found a significant effect of privatisation on reshaping the ownership map in Jordan, by reducing state ownership levels and, at the same time, increasing other owners, such as individuals, institutional and family firm owners.

Interestingly, after activating the Jordanian CG Code in 2009, and after enacting many reforms to improve the Jordanian environment to present the Jordanian market as an attractive investment target, this study found the following four main categories of ownership in the ASE: Blockholder (9%), institutional (40%), managerial ownership (14.76%) and 60% of the Jordanian listed firms have family members (see table 6-6 page 166).

Furthermore, the disclosure law No. 76 for the year 2002 stipulates that Jordanian firms need to disclose all information about any investors who hold more than (5%) of a firm's outstanding shares.

2.7 The Jordanian Environment and Accruals Manipulations

The Jordanian market is considered to be a less-developed market than other markets, such as the U.S. or U.K. markets (Qudah, 2011). In general, one of the main drawbacks of the Jordanian market is the scarcity of financial and natural recourses, and this has put strong pressure on the Jordanian government to secure other sources of revenue, especially by implementing taxation law with high taxation rates(Al-Naimat, 2013). Hence, this has offered a good opportunity for shareholding companies to manipulate, or at least change, their reported earnings to avoid high taxation payments (Qudah, 2011). According to a study carried out by Alqudah (2011), the two main incentives behind adopting creative accounting techniques in Jordan were personal benefits and avoidance of taxation payments. Consequently, such motivations have made the financial reports a fertile ground for taking advantage of existing gaps in accounting standards and current regulations, in terms of financial statement preparation.

However, and based on the previous related literature in terms of EM prevalence, the Jordanian market has not been an attractive target for researchers to explore the effects of EM on financial reporting creditability and transparency. Therefore, the current findings of this study are expected to contribute to the literature by providing a significant result in terms of EM prevalence within the Middle-East region (Jordan), after the activation of the CG code for listed firms in 2009.

As mentioned previously, Jordan is located within an emerging market framework that is governed by weak protection rights, poor disclosure compliance and high taxation rates (Halabi, 2009; Idris, 2012). Therefore, the phenomenon of EM was expected to be practised seriously by Jordanian managers when adopting relevant techniques and methods to achieve their intended goals. The occurrence of EM is considered to be more pronounced than in other markets, due to the previously stated reasons and motivations.

A study carried out by Alqudah (2011) investigated the extent of creative accounting prevalence within the Jordanian market. This study relied on a sample of external auditors to explore their perspectives about creative accounting incidence in Jordan. The study's results documented that Jordanian listed firms had violated the main requirements of accounting standards in terms of financial report preparation and, specifically, the "Income Statement". In other words, Jordanian shareholding firms were motivated to manipulate their revenue and expenses to alter reported earnings.

Moreover, using a questionnaire as a method for data collection to explore external auditors and accounting department staff perceptions of creative accounting prevalence, in order to establish a clear strategy to restrict such a phenomenon, Jarar (2008) found that Jordanian shareholding firms had engaged in creative accounting issues on various levels. Furthermore, and in line with Qudah (2011), the results regarding the main techniques that had been used by Jordanian firms, Jarar (2008) reported that most of the adopted creative accounting techniques concentrated on revenue and expenses recognition to affect the reported earnings.

In terms of secondary data analysis, Riesheh (2014) documented empirical evidence of a sample of industrial firms between 2005 and 2012 which indicated Jordanian listed firms practised discretionary accrual manipulation. Furthermore, a study carried out by Abed *et al.* (2012) aimed to investigate the role of internal CG mechanisms as monitoring tools to constrain EM decisions. Selecting a sample of manufacturing firms between 2006 and 2009, and employing the Jones Model (1991), they found that Jordanian listed firms had practised discretionary accruals techniques in their financial reports. Finally, investigating the relationships between ownership structure and discretionary accruals levels was the main aim of the Al-Fayoumi *et al.* (2010) study. To achieve their research objective, a sample of listed industrial companies between 2001 and 2005 was selected. The findings revealed that Jordanian listed firms had engaged in discretionary accruals actions, of which the average was 11.7% of total assets.

Furthermore, well-known and leading firms, such as the Petra Bank and the Phosphate Mines Company, have engaged in EM practices to prepare misleading financial reports. They used income-decreasing techniques to alter their earnings and, in the case of Petra Bank, their opportunistic actions shifted from legal practices to illegal actions. The most recent scandal called the "*Fictitious Stock Exchange Scandal (2010)*" proved the need to implement more laws and regulations governing transparency and disclosure issues. A harmful consequence of this scandal has affected the small investors in Jordan, since they were dependent on such reports when making their investment decisions. Hence, the current research aims to shed light on accrual manipulation techniques, based on different perspectives, and to investigate corporate governance roles in constraining earnings management, especially after the enactment of the Corporate Governance Code in 2009.

Significantly, the previous studies and scandals provide an indication of earnings management prevalence within the Jordanian market, specifically in manufacturing shareholding firms. In addition, this existence could be attributed to the weak protection of rights, concentrated ownership in terms of the family firm type and government pressure on listed firms to adopt new regulations.

2.8 Corporate Governance in Jordan

As mentioned above, the incidence of diverse financial scandals in Jordan has fuelled the need to develop deterrent laws and regulations to oversee managerial behaviour when directing and controlling firms. Therefore, the Jordanian regulators (Central Bank of Jordan, and Securities Depositary Centre) have paid specific attention to improving the current regulations and have issued further regulations, including CG codes. Corporate governance started in Jordan in 2004, following the issue of a separate manual for the Jordanian Bank called the "*Bank Director's Handbook of Corporate Governance*" by the Jordanian Central Bank (JCB). The main goal of this handbook was to enhance the Jordanian banking system by promoting CG best-practice mechanisms in the banking sector. This handbook aimed to emulate international best-practice recommendations, and was specifically based on OECD CG principles and the Basel committee recommendations regarding banking supervision. The Jordanian banks have to disclose their level of adoption on their websites and in annual reports. However, this handbook also aimed to fulfil four other objectives:

1. To ensure the equitable treatment of all groups with interests in a bank's information, such as shareholders, bank employees, depositors and regulators.
2. To enhance financial reporting transparency and disclosure levels, thus offering sound monitoring of a bank's stakeholders' evaluation of a bank's performance.

3. To organize the relationships between the executive management team and board of directors, and between the board and bank's stockholders, by setting up a clear pyramid of accountability.

On the other hand, in 2006, the Jordanian Insurance Commission issued clear instructions with which insurance firms in Jordan must comply. These instructions are the "*Corporate Governance Instructions of 2006 for Insurance Companies*", and came into force at the date of advertising in the official Jordanian gazette. The main elements of the insurance CG code concentrate on board of director characteristics, executive management features, audit committee composition, risk management and internal control systems and banks' general provisions frameworks (SDC, 2006).

In 2007, another code called the '*Corporate Governance Code for Banks*', was issued by the CB of Jordan, illustrating CG best practices concerning the banking sector. This code concentrates on improving report transparency within banking sectors by enhancing disclosure requirements. This precise goal highlights the importance of a bank's internal control system and is expected to promote qualified and reliable financial reports for a bank's stockholders (SDC, 2007).

In terms of the CG code of non-financial listed firms, the responsibility of issuing this code was given to the JSC in 2009, and this code is known as the '*Corporate Governance Code for Shareholding Companies on ASE*'. This code concentrates on enhancing the accountability issues within the CG framework, specifically the board of director's integrity and independence and restricting managers' opportunistic behaviour to protect shareholders' rights, since this weakness was the main focus of Jordanian laws and regulations. In other words, this code aims to enhance financial reporting quality by promoting the board of director's independence (SDC, 2009). Thus, this code comprises five chapters.

The first chapter defines the primary terminologies regarding the main concepts of corporate governance (for instance: independence criteria, committee definition or stockholders etc.), whilst the second chapter consists of three subsections. The first subsection explains the board of director's structure, in terms of the board's independence requirements (such as the number of independent members, board size, CEO duality etc.). The second subsection emphasises the board's subcommittees' (Audit and Nomination and Remunerations Committee) roles and characteristics. This subsection offers detailed explanations of the board's structures and a clear description of each committee's roles and tasks to guarantee reliable and creditable financial reports.

The third chapter sheds light on companies' General Assembly Meetings (GAM), while, the fourth chapter classifies shareholders' rights into two main types: the first type covers shareholders' general rights and the second type explains shareholders' rights and powers within GAM. Finally, the fifth chapter focuses on disclosure and transparency issues. Indeed, this chapter covers four sections (Audit Committee, Duties, Powers of Audit Committee and the External Auditor Issues) (SDC, 2009). The following table summarises CG development in Jordan:

Table 2-2 Corporate Governance Development in Jordan

Issuing Agency	Year	Corporate Governance Publications
Central Bank of Jordan	2004	Issuing a general manual for Jordanian Bank called "Bank Director's Handbook of Corporate Governance".
Insurance Commission	2006	Issuing corporate governance guidance book to organize insurance firms' structure and operations.
CBJ	2007	Issuing a detailed corporate governance code of banks that had to be applied from 31/12/2007. This code explains the required steps and procedures that have to be followed by Jordanian banks to guarantee adequate levels of disclosure using a "Comply or Explain" approach.
JSC	2009	Issuing a mandatory corporate governance code of listed companies in the ASE that had to be adopted by 1/1/2009.
JSC	2010	Issuing an index called "**Imperative & General Codes**". This index classifies CG code mechanisms as either compulsory or voluntary.

In short, issuing the previous codes to cover all firms in the Jordanian market was a response to the weaknesses of current laws and regulations within the Jordanian market (Almasarwah, 2015; Abbadi *et al.*, 2016; Alzoubi, 2016). The codes protect minority shareholders' benefits, enhance financial reporting quality and minimise agency problem consequences.

Before activating the CG code in Jordan in 2009, the Jordanian shareholding companies showed a week response in terms of "Audit Committee" establishment, and most of the audit committee tasks and responsibilities were delegated to accounting and finance departmental staff. Therefore, opportunistic managers had the power to threaten the overall auditing process (Shanikat and Abbadi, 2011). In other words, the accounting and finance departments were carrying a huge amount of duties and tasks, which led to poor monitoring performance of the audit process. Furthermore, a study carried out by Jarar (2008) clearly concludes that most accountants in accounting departments were not conscious of their tasks as a delegated body to carry out audit committee duties.

However, the CG phenomenon is considered to be a young and new issue in Jordan; therefore, the Jordanian market needs more time to join the developed markets in terms of compliance rates of CG, board of director independence and in establishing powerful committees to oversee a firm's financial matters (Almasarwah, 2015; Monsif Azzoz and Khamees, 2016).

2.9 Summary

The Hashemite Kingdom of Jordan has witnessed various significant phases over the last 100 years, starting with the Great Arab Revolt in 1916 and, later, the declaration of Jordanian independence in 1946. The main factors influencing Jordan now are its scarcity of financial and natural resources. Because of this scarcity, successive Jordanian governments have suffered huge pressure to secure their basic needs. As such, external intervention has played a crucial role in shaping the Jordanian financial and accounting map as a response to external parties, such as the World Bank. However, Arabic is the used language in Jordan, and Islam is the religion of the Hashemite Kingdom of Jordan, which organizes most of its day-to-day, financial and personal matters. In terms of regime, Jordan is governed by a royal system that is mainly limited to the members of the Hashemite family.

Over the last fifteen years, the Jordanian environment has witnessed various political and economic events. Privatisation appears to be the most important event in determining the firm ownership map in Jordan. In this regard, the Jordanian government has abandoned its quotas in listed firms' shares to reduce their responsibilities for controlling and monitoring these firms(ASE, 2016). On the political front, Jordan is located in a politically volatile region that has suffered from different wars and coups (Arab Spring), which has constrained the Jordanian economy (Beck and Hüser, 2015).

Consequentially, Jordan has issued and modified a set of laws and regulations to enhance disclosure levels in order to protect investor's rights and to present the Jordanian market as an attractive market for foreign investors. Jordan has done this, for instance, by legislating CG codes for the main three sectors (banks, insurance and listed firms) to keep up with international codes and to attract investors and protect minority shareholders' interests. However, the CG issue in Jordan needs more attention paid to it by Jordanian firms, in order to have a solid framework to protect the Jordanian economy (Almasarwah, 2015; Jrairah *et al.*, 2015).

In conclusion, chapter two has given a clear and brief summary of the Hashemite Kingdom of Jordan, an overview of the Jordanian context, and regulatory commissions, as well as its corporate governance development.

Chapter 3: Literature Review

3.1 Introduction

While chapter two provided a comprehensive overview of the Jordanian context, this chapter summarises the results of previous investigations regarding the role of internal corporate governance (CG) mechanisms and ownership structure in restricting earnings management (EM). This thesis evaluates the effectiveness of Jordanian CG code on restricting the EM issue, specifically discretionary accruals. The studies reviewed in this chapter focus on the roles of boards of directors, AC and the role of ownership structure in aligning the goals of owners and managers.

Following a short introduction, the chapter has the following sections: Section 3.2 defines the corporate governance concept. Section 3.3 defines EM in general and explains the main approaches of EM. Section 3.4 illustrates researches in terms of boards of director’s roles in constraining EM. Section 3.5 sheds light on ACs’ roles in hindering managers from practicing EM. Section 3.6 explores previous literature with regard to ownership structure roles in reducing EM practices. Finally, section 3.7 provides a short conclusion and explains the literature gap.

3.2 Corporate Governance Definitions

Over the last twenty years, financial markets have witnessed several financial collapses and failures. Well-known firms, such as Enron, WorldCom and Parmalat, are clear examples of these collapses. More recently, the financial market crisis in 2008 and other financial failures have attracted the attention of policymakers, accounting bodies and local governments, resulting in pledges to devote more effort and resources to evaluating the effectiveness of current regulations and legislation regarding firms’ control systems and monitoring mechanisms(Man and Wong, 2013). These evaluations have led to the enactment of new regulations, such as CG codes, to reduce such failures, to increase the creditability of firms’ reports and to protect firms’ interests (Badolato *et al.*, 2014). Other stakeholders have recognized the importance of issuing CG codes to offer a solid, stable and accepted framework to organize corporations’ tasks and responsibilities (Man and Wong, 2013).

This issue is debatable in terms of defining CG, since CG literature has not yet produced an accepted definition to be adopted by developed and less-developed markets. The first initiative to define CG was carried out by Adrian Cadbury. In his "*Cadbury Report*" (2002), CG is defined as [a] "*system by which companies are directed and controlled*". Additionally, the Organization for Economic Co-operation and Development (OECD) defined this issue as "*a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.*"(OECD, 1999). Moreover, CG has been recognized as a "*structure whereby managers at the organizations apex are controlled through the board of directors, its associated structure, executive intuitive and other schemes of monitoring and bonding*" (Donaldson, 1990:93). Among these definitions, the OECD defined CG to fit both developed and less-developed markets, since each market tried to define this issue from their perspective to cope with their specific regulations and settings.

Interested researchers have divided CG mechanisms into two main types. The first covers external mechanisms, while the second encompasses internal mechanisms (Man and Wong, 2013). External CG mechanisms cover countries' legal systems, which play crucial roles in improving the creditability and transparency of financial reports. Strong legal systems that protect investors' rights and have strong disclosure requirements have been found to be more attractive to investors (Man and Wong, 2013). Leuz *et al.* (2003) and Burgstahler and Eames (2006) found an inverse relationship between the magnitude of accounting manipulations and strong legal systems. Economies characterised by weak and poor regulations (legal system) were found to be more attractive to managers who manipulate financial reports, since they expect to take advantage of such weaknesses to obfuscate the corporate financial position. Using a cluster sample of different countries, Ball *et al.* (2000) found that strong, solid legal systems were more successful in constraining accounting manipulation issues (earnings management). Shleifer and Wolfenzon (2002) found that managers were not motivated to divert their current financial position when operating within a strong legal system. Among the factors that conclusively improve the creditability and quality of financial reporting and constrain managers' opportunistic behaviour, Ball *et al.* (2003) found that institutional arrangements within different contexts are considered to be most important and significant when offering the required legal infrastructure to protect shareholders' rights.

Internal CG, as a mechanism to improve the quality of financial reports, appears to be a solution to the weak external regulations that opened the doors for opportunistic managers to take advantages of loopholes in current regulations and legislations (Man and Wong, 2013). Over the last ten years, western markets have devoted significant efforts to investigating internal CG mechanisms as control and monitoring tools in order to reassure shareholders and other stakeholders about the soundness of their firms' financial positions (Chen and Zhang, 2014)(Lee and Lee, 2014). For instance, internal mechanisms cover board of directors, audit committee and ownership structure. CG codes in both emerging and developed markets have asked listed firms to enhance board structure by including more independent and experienced members to serve on firms' boards as active monitors, with the goals of protecting shareholders' rights, restricting firms' failures and increasing board transparency and truthfulness (Man and Wong, 2013).

3.3 Earnings Management Phenomenon and Approaches

To maximise shareholders' wealth by exploiting a firm's resources, a firm's principals often delegate their operational, investment and monitoring tasks to specific agents (Mallin, 2011). To achieve shareholders' aspirations for increasing a firm's capital, these agents should make investment decisions to enhance a firm's future performance, in which interested groups' expectations are achieved. However, this smooth and flexible vision to report positive earnings or expectations is not accessible all the time; therefore, managers may be motivated to adopt various techniques, such as EM, to report consistent results in line with shareholders' expectations.

Unfortunately, previous studies have not yielded an agreed-upon definition of EM, in which all the different areas of EM are explained under one definition. However, Healy provided a definitions that is still commonly used by the current literature Healy (1985, p.368)

> *"Earnings management occur when managers use judgement in financial reporting and in structuring transactions to alter financial reports to either misled some stakeholders about the underlying economic*

> *performance of the company or to influence contractual outcomes that depend on reported accounting numbers"*

Furthermore, Schipper (1989, p.92) also defined this phenomenon by suggesting personal benefits were the firm's managers' main incentive to alter firm's earnings, whereby,

> *"Purposeful intervention in the external financial reporting process, with the intent of obtaining some privet gain (as opposed to say, merely facilitating the neutral of the process)"*

the attempt to define EM was continued by Roychowdhury (2006, p.336), and, he described it as:

> *"Management actions that deviate from normal business practices, undertaken with the primary objective of meeting certain earnings thresholds."*

Based on the previous definitions of EM, it is obvious that managers have many opportunities to alter a firm's earnings, whereby their hidden goals can be achieved. However, according to the previous definitions, the main premise is connected to a manager's personal motivation, as this will determine the main techniques or approaches used to alter a firm's earnings.

The EM literature provides distinct examples of managers' motivations for practising their discretion over the financial reporting processes within a firm. Affecting a firm's stock price, managers' bounces and meeting contractual, or analysts', expectations are the main motivations for managers to positively manipulate earnings (Glaum *et al.*, 2004; Peek, 2004; Daniel *et al.*, 2008; Qudah, 2011). In contrast, avoiding taxation expenses or regulatory costs are the main incentives behind negatively manipulating earnings (Han and Wang, 1998; Monem, 2003; Goncharov and Zimmermann, 2006).

Interestingly, and regardless of the negative or positive trends of EM, previous investigations have suggested two possible approaches to altering the reported earnings, either by using accruals management or by adopting real earnings management.

3.3.1 Real Earnings Management (REM)

Managers tend to create real-transactions during a firm's accounting periods to reach a specific level of earnings. This approach has a direct negative effect on a firm's cash flow levels (Roychowdhury, 2006; Cohen *et al.*, 2008). Indeed, creating real transactions is still within the accounting standards bounds, since managers prefer to deviate from regular accounting transactions to adopt or create specific activities to achieve the required earnings targets.

In this vein, a vast variety of studies have identified the main techniques used to deviate from the contractual operational transactions by adopting more opportunistic transactions. REM offers more flexibility and options for managers during the financial period to alter a firm's earnings by, for instance, affecting Research and Development (R&D) amounts or altering selling, administrative and general expenses (Roychowdhury, 2006).

Xu *et al.* (2007) provided a comprehensive view of REM, by claiming that managers may deviate and create real transactions in which a firm's operational, financial or investment activities are affected. Furthermore, such firms may be motivated to experience acquisitions situations or enter into capital lease transactions to enhance their firm's reported earnings (Dye, 2002).

Although these transactions have a negative impact on a firm's cash flow, they offer managers the freedom to choose the time and amount of such transactions with less direct objection or control from the firm's controlling parties, in comparison with the accrual management approach. However, deviating from regular transactions to create new transactions to alter a firm's earnings is still the preferred approach when the monitoring bodies or legislators narrow down accrual options (Ewert and Wagenhofer, 2005; Cohen *et al.*, 2008).

Significantly, previous investigations have revealed various approaches to estimate REM. These approaches are, namely, discretionary expenses (e.g. R&D, advertising expenses and selling, administrative and general expenses), sales-based transactions or production cost-based transactions (e.g. increasing production volume to affect cost of goods sold to increase earnings figures).

Regardless of the adopted approach used to deviate from the normal transactions, REM affects a firm's cash flow negatively, and in the long-run, may threaten the survival of these firms, as shareholders' interests will be minimised.

3.3.2 Accruals Management

In general, the main goal of accruals is to depict a firm's accurate performance by recording the incurred accurate amounts of revenues and expenses for each accounting period, and by reporting the accurate earnings for each period, rather than creating real transactions that affect a firm's cash flow (Man and Wong, 2013). Accrual accounting is an alternative accounting policy to cash accounting, which displays various weaknesses in evaluating a company's performance in different situations (Dechow, 1994). Indeed, accrual accounting stipulates that a firm's revenue and expenses should be recorded in the same accounting year in which they are incurred, rather than recording these transactions when the payments are received. Hence, each accounting period will document a firm's transactions regardless of receiving the actual cash payments in future periods (Kieso *et al.*, 2010).

Therefore, the International Accounting Standards Board (IASB) asked firms to prepare their financial statements based on accrual accounting to show the firm's accurate performance. However, the developer of accrual accounting enacted only a general framework and, as a result, this flexibility has allowed managers to practise their discretion in preparing financial reports. Hence, these loopholes in accrual accounting have offered many opportunities for managers to opportunistically manipulate a firm's earnings by controlling the accrual recognition policy and present attractive financial reports (Man and Wong, 2013).

For example, managers may exploit the loopholes in accounting and auditing standards to affect a fixed asset depreciation policy by changing the useful life or salvage values. In such a situation, managers have engaged in accrual manipulations to control a firm's earnings stability in order to protect their positions (Healy, 1985).

In general, the manipulative actions perpetrated by managers is connected to the timing of recognising net income components without any repercussions on a firm's cash flow, compared with the real earnings management approach, which has a direct negative impact on a firm's future cash flow.

With respect to the EM literature, discretionary accruals is the common term related to EM manipulations. In this vein, it is defined as '*accruals that arise from transaction made or accounting treatments chosen in order to manage earnings*' (Ronen and Yaari, 2008: p. 372). Indeed, discretionary accruals represent opportunistic management decisions to deviate from the actual level of earnings in order to report the targeted attractive earnings.

The accruals literature provides several approaches to estimating accruals, such as estimating a specific accruals approach or calculating the total accruals approach. Under the first approach, a manager is concerned with devoting his efforts to manipulate accruals based on one component of accruals, such as bad debt provisions or deferred tax assets (McNichols and Wilson, 1988; Miller and Skinner, 1998).

However, this method of estimating opportunistic behavior does not consider a manager's concurrent manipulations of other types of accruals. For instance, if a researcher failed to document any manipulations with regard to the selected item (e.g. bad debt or deferred tax assets), this could indicate the absence of any opportunistic behavior in the firm; however, managers may be willing to alter other categories to achieve their goals. Hence, adopting such an approach may not yield valid results when studying the position in Jordan.

The second option is called the aggregate method. Previous efforts have identified with two main methods available to estimate total accruals. The first approach selects differences in total accruals as an index to estimate managers' opportunistic actions. Under this approach, non-discretionary accruals appear to be constant between periods; therefore, the changes in total accruals are attributed to discretionary accruals manipulations (DeAngelo, 1986; Man and Wong, 2013). However, the development of the total accruals process continues to separate total accruals into discretionary accruals and non-discretionary accruals (Jones, 1991; Ronen and Yaari, 2008).

To elaborate further, total accruals are classified as discretionary accruals and non-discretionary accruals. Regarding discretionary accruals, managers are expected to use loopholes in accounting policies when making choices and estimations to affect accrual numbers. This means that they tend to practice discretion in reporting accounting numbers to misinform interested users. In contrast, non-discretionary accruals are economically and operationally determined and are not subject to a manager's control (Jones, 1991; Dechow *et al.*, 1995; Bartov *et al.*, 2000; Ronen and Yaari, 2008).

The total accruals literature suggested several models to estimate accruals manipulations. These include the Healy Model (1985), the DeAngelo Model (1986), the Jones Model (1991), the Modified Jones Model (1995) and the Kothari *et al*. Model (2005).

3.3.2.1 The Healy Model

The Healy (1985) Model provided empirical evidence that U.S. firms had adopted income-increasing techniques to boost their reported earnings to comply with compensation schemes. In line with this model, total accruals are estimated by calculating the difference between a firm's earnings and cash flow. This model is calculated as follows:

$$\boxed{\mathbf{NDA_{i,t} = 1/n \sum_{t} (TA_{i,t} / TA_{i,t-1})}}$$

Where:

$NDA_{i,t}$= Non-discretionary accruals for company i, in year t.

$TA_{i,t}$= Total accruals for company i, in year t.

$TA_{i,t-1}$= Total accruals for company i, in year t_{-1}.

n: number of years in the estimation period.

3.3.2.2 The DeAngelo Model

On the other hand, the DeAngelo (1986) Model suggested that the average of non-discretionary accruals between financial years was approximately constant; therefore, any variance in total accruals was directly correlated to discretionary accruals. Hence, the suggested model to estimate accruals is as follows:

$$\boxed{\mathbf{NDA_{i,t} = TA_{i,t} / A_{i,t-1}}}$$

Where:

$NDA_{i,t}$= Non-discretionary accruals for firm i within the year t.

$TA_{i,t}$= Total accruals.

$A_{i.\,t}$ = Total assets.

3.3.2.3 The Jones (1991) Model

Subsequently, Jones (1991) introduced a valid model in comparison with the previous two models, by separating total accruals into discretionary and non-discretionary accruals. This captured the effects of non-discretionary accruals. Interestingly, this model avoids any weakness in estimating the non-discretionary accruals that appeared in the previous two models, which assumed the absence of any change, in or effect of, non-discretionary accruals. Therefore, Jones (1991) estimated non-discretionary accruals by the following equation:

$$\mathbf{NDA_{i,t} / TA_{i,t-1} = \beta_0 + \beta_1 (1/TA_{i,t-1}) + \beta_2 (Sales / TA_{i,t-1}) + \beta_3 (GPPE / TA_{i,t-1}) + \varepsilon}$$

Where:

$\mathbf{NDA_{i,t}}$ **=** Non-discretionary accruals for firm i at year t.

$\mathbf{TA_{i,t-1}}$ = Total assets for firm i at previous year.

Δ $\mathbf{Sales_{i,t}}$ **=** Change in sales for firm i at year t.

$\Delta\mathbf{GPPE_{i,t}}$ **=** Change in property plant and equipment for firm i at year t.

$\boldsymbol{\beta_0}$**,** $\boldsymbol{\beta_1}$**,** $\boldsymbol{\beta_2}$ and $\boldsymbol{\beta_3}$ Company specific parameters.

3.3.2.4 The Modified Jones (1995) Model

Consequentially, Dechow *et al.* (1995) devoted further efforts to improve the Jones (1991) Model, by considering the impact of discretionary accruals decisions when practised over discretionary revenue. Therefore, they considered accounts receivable as a discretionary accruals manipulation to capture managers' opportunistic behaviours. Hence, Dechow *et al.* (1995) presented the following model to estimate non-discretionary accruals:

$$\mathbf{NDA_{i,t} /TA_{i,t-1} = \beta_0 + \beta_1 (1/TA_{i,t-1}) + \beta_2(\Delta\, Sales_{i,t} - \Delta Rec_{i,t} /TA_{i,t-1}) + \beta_3(\Delta\, GPPE_{i,t} /TA_{i,t-1}) + \varepsilon}$$

Where:

Δ $\mathbf{Rec_{i,t}}$ **=** Change in accounts receivable for firm i at year t.

3.3.2.5 The Performance Matched Discretionary Accruals Model

Additionally, some researchers documented a positive correlation between a firm's performance and discretionary accruals estimated by the Jones (1991) or the Modified Jones (1995) Models. To impair the effect of this correlation, Kothari *et al.* (2005) suggested adjusting the previous two models by adding ROA as a separate variable in calculating non-discretionary accruals. Hence, the adjusted new model is as follows:

$$NDA_{i,t} / ATA_{i,t-1} = \beta_0 + \beta_1 (1/TA_{i,t-1}) + \beta_2(\Delta Sales_{i,t} - \Delta Rec_{i,t} / TA_{i,t-1}) + \beta_3(\Delta GPPE_{i,t} / TA_{i,t-1}) + \beta_4 (ROA_{i,t})$$

Where:

ROA= Return on assets.

Among these models, the Jones Model (1991) and the Modified Jones Model (1995) are still the most important and useful models for estimating accruals manipulations, specifically with respect to discretionary accruals (Habbash, 2010; Man and Wong, 2013). The main merits of these two models are their ability to separate accruals into non-discretionary accruals and discretionary accruals, and their ability to be used within cross-sectional studies (Jones, 1991; Dechow *et al.*, 1995; Ronen and Yaari, 2008). Furthermore, the novelty of the Modified Jones Model (1995) concerning accounts receivable classifications makes this model superior to the others. In the modified version, accounts receivable is classified as a discretionary accrual, while the Jones Model (1991) treats accounts receivable as a non-discretionary accrual (Dechow *et al.*, 1995; Ronen and Yaari, 2008).

3.3.2.6 Total Accruals Approaches

In terms of total accruals, previous literature suggests two main methods: cash flow and balance sheet. Using the balance sheet method, total accruals is estimated as follows:

Balance sheet approach

$$TAC_{t,i} = \Delta CA_{t,i} + \Delta Cash_{t,i} - \Delta CL_{t,i} + \Delta DCL_{t,i} - DEP_{t,i}.$$

Where:

$\Delta CA_{t,i}$= Change in current assets for firm i at year t.

$\Delta Cash_{t,i}$= Change in cash for firm i at year t.

$\Delta CL_{t,i}$= Change in current liabilities for firm i at year t.

$\Delta DCL_{t,i}$= Change in debt for firm i at year t

$DEP_{t,i}$= Depreciation and amortisation expenses for firm i at year t.

The cash flow method estimates total accruals as follows:

Cash flow approach

$$TAC_{t,i} = NI_{t,i} - CFO_{t,i}$$

Where:

- **NI** = firm's earnings before extraordinary items for firm i at year t.
- **CFO** = cash flow from operational activities for firm i at year t.

Undoubtedly, the selection between the previous two methods is not random, as a study by Hribar and Collins (2002) identified the main difference between the previously suggested approaches. They found that the balance sheet approach is less useful in estimating total accruals if the targeted firms have some merger or acquisitions transactions, since such actions may break down or adjust the correlations between a firm's working capital and the various factors in income statements, such as accrued revenue or accrued expenses. Another disadvantage of the balance sheet approach is connected to its ability to estimate accruals in firms that experience discontinuing operations, as these could be estimated as discretionary accruals (Habbash, 2010; Alghamdi, 2012; Chen and Zhang, 2014).

In summary, this section aimed to define the EM phenomenon from various perspectives, offering a comprehensive view of the EM issue presented in previous investigations. Additionally, this part also sheds light on the main approaches to EM, whether real EM or accruals management, by explaining the main differences between, and the models used within, the two approaches.

However, the following parts shed light on prior efforts to explain the monitoring roles of the board of directors, the AC and ownership structure in enhancing firms' financial reports by constraining opportunistic actions through firms' accruals.

3.4 Board of Directors Characteristics and Earnings Management

Agency theory suggests that a firm's board of directors is the prime mover in monitoring and controlling the firm's activities, by constraining managers' opportunistic actions and, thus, ensuring the accuracy of annual reports (Chen and Zhang, 2014). According to Fama (1980), the classic roles of institutions boards are to manage, assess firms' performance, introduce firms' strategic plans and make appropriate decisions regarding issues such as external auditors or compensation matters. A firm's board is in charge of setting its operational goals, defining its strategies and assigning missions to subcommittees to protect shareholders' rights, preventing resources from being expropriated and minimising information asymmetry between agents and principals (Cornett *et al.*, 2008; Mallin, 2011).

This section of the literature review examine scholars' initiatives to explore the role of firms' boards in constraining EM practices estimated by discretionary accruals. In addition, the literature describes the characteristics associated with board integrity and independence and their role in producing creditable reports.

3.4.1 Board of Directors Independence and Earnings Management

Agency theory mentions that introducing independent members to a firm's board might constrain conflicts of interest between agents and principals, due to their crucial roles in monitoring and controlling managers' decisions and behaviours (Fama and Jensen, 1983; Chen and Zhang, 2014; Khalil and Ozkan, 2016). An independent member is a board member who is not engaged in a forthright or indirect financial or personal relationship with corporation various groups, other than his contractual monitoring responsibilities in the firm (Man and Wong, 2013).

Independent members are motivated to act in the best interest of the firm's principals, since no direct or indirect business or economic or political benefits are expected by them. As a result, they play a significant role in preventing the management team from adopting manipulative practices that cover their opportunistic behaviour and ultimately affect the firm's financial position (Cueto, 2013; Man and Wong, 2013). Their involvement in the institution's financial decisions process may also create the balance required to ensure creditable and reliable judgements and avoid misleading decisions (Mallin, 2011; Talbi *et al.*, 2015).

Some scholars (Chen *et al.*, 2006; Chen and Zhang, 2014; Ianniello, 2015) have summarized the main motivations for independent members to minimize conflicts of interest. For example, they may incur reputation damage if they fail to act on behalf of firm's principals. In addition, monitoring a firm's activities helps independent members to promote their monitoring expertise and skills to other firms in which external directorships will be guaranteed. Protecting shareholders' interests by constraining manipulation activities may lead to good positions in local governments and the opportunity to enhance national economies. Good social and political positions can, thus, allow independent members to improve their welfare and financial positions (Fan *et al.*, 2007).

While previous literature regarding board independence is very extensive in developed markets, it is less common in emerging markets, especially in the Middle East. In spite of its vast variety, the literature shows conflicting findings. Some studies have documented empirical evidence that supports agency theory propositions, while other studies have reported conflicting findings.

To begin, Abbadi *et al.* (2016) explored the monitoring effects of a pre-selected group of CG mechanisms on EM levels in Jordan. Using 121 listed companies between 2009 and 2013, and by adopting a previous index prepared by Sawicki (2009) and Prommin *et al.* (2014) to evaluate CG quality, the researcher found that independent members had restricted EM, estimated by the Jones Model (1991).

However, the main drawback of this research was adopting a readymade index to evaluate CG quality in Jordan, since the secondary data concerning CG mechanisms is available. Additionally, this approach gives an equal weight for each variable covered in the index and this may not offer a good opportunity to explore the variations in adopting a CG code (Owusu and Weir, 2016).

In detail, Abbadi *et al.* (2016) prepared ten statements to evaluate CG quality, and each statement was graded one if the firms adopted or disclosed the required information, otherwise, it was graded zero. This approach may be valid if the secondary data is not available or if it is difficult to have easy access, but within the Jordanian context, the secondary data is available.

Likewise, the Jordanian market attracted Alzoubi and Alzoubi (2016) to investigate the impact of disclosure quality and CG on discretionary accruals levels over a sample of eighty-six manufacturing firms listed in the ASE between 2007 and 2010. By applying the Modified Jones Model (1995) to estimate manipulations in accruals, the researchers found a significant negative correlation between independent members' and managers' opportunistic behaviour. However, the study's sample focused predominantly on one sector within the Jordanian context, which may have affected the obtained results. Indeed, the industrial sector may be shown as an organized sector with an adequate level of disclosure compared to other sectors, such the service sector. Therefore, the results cannot be generalised to the Jordanian market, since they emphasise only one sector. Secondly, the study period was short (three years), and it started from 2007, whereas the CG code for listed firms was introduced in 2009, so this may weaken the results obtained.

A study by Talbi *et al*. (2015) examined the independence roles of boards of directors and ACs and their effect on constraining EM techniques within the US context. Targeting 7,481 firms listed on the AMEX, NYSE and NASDAQ between 2000 and 2009, the researchers concluded that only independent members were found to have the upper monitoring hand in constraining EM, compared, for example, to an independent AC that lacks any crucial monitoring role.

An investigation carried out by Chi *et al.* (2014) investigated the effects of CG on constraining EM prevalence, relying on a group of Taiwan family firms. To achieve their study objective, the researchers applied their interests to a sample of 379 high-technology firms listed for seven years. However, independent members within the firms' boards had reduced EM practice. The researchers found a negative correlation between accruals levels estimated by the Jones Model (1991) and the proportion of independent members.

Evidence from the Chinese market indicates that, among the monitoring techniques adopted to mitigate managers' opportunism, the hiring of independent members remains one of the most significant methods of protecting shareholders' interests against discretionary accruals actions estimated by the Modified Jones Model (1995) (Habbash *et al.*, 2014).

Chen and Zhang (2014) hypothesised a significant monitoring role of non-executive independent members in curbing EM over a sampling of listed firms between 2000 and 2006. Employing the Jones Model (1991) as a discretionary accruals index, the researchers documented a significant negative correlation between discretionary accruals and independent members after activating CG codes in 2002. The researchers found that activation of the CG codes in 2002 curbed the frequency of accruals manipulations.

Zgarni *et al.* (2014) examined the relationship between boards of directors' characteristics and EM within the Tunisian context. Selecting 29 non-financial corporation on the Tunis Stock Exchange (TSE) between 2001 and 2009, and employing the Roychowdhury Model (2006), the researchers concluded that adopting CG recommendations within the

Tunisian context led to a negative association between boards with independent members and EM.

Using the quantitative approach (Questionnaire), and including the Nigerian Accounting Standards Board (NASB), the Central Bank of Nigeria (CBN), the Nigerian Stock Exchange (NSE), banks and firm managers in their research, Odia and Ogiedu (2013) concluded that a high proportion of independent members plays an important role in constraining EM behaviours.

Numerous studies (Osma, 2008; Dimitropoulos and Asteriou, 2010; Marra *et al.*, 2011) have examined the impact of introducing an independent-member of board structure as a deterrent monitoring tool to align agent-principal interests. Relying on a cross sampling of different countries, they concluded that the presence of an adequate number of outside independent members restricts management from taking deliberate steps to manipulate accruals numbers. This critical finding has led to the minimisation of the historical agency problem.

On the other hand, some studies have reported contrasting results concerning the monitoring roles of independent members. For example, empirical evidence obtained by Monsif Azzoz and Khamees (2016) explored the impact of CG mechanisms on EM levels within the financial market in Jordan. Selecting a sample of seventy-three financial firms listed between 2007 and 2012, the researchers documented weak monitoring roles of the independent members in constraining EM estimated by the Modified Jones Model (1995). However, the scope of this study concentrated on the financial institutions which have different operational activities, as opposed to research that has covered the non-financial sectors in the ASE.

Wan Mohammad *et al.* (2016) were motivated to examine whether the Malaysian listed firms had utilized the independence requirement efficiently in constraining EM estimated by the Modified version of Jones (1991) model. They focused on a sample of 201 manufacturing companies listed between 2004 and 2009. Interestingly, in both sub-periods (before and after activating CG in Malaysia), the listed firms were not efficient in taking advantage of such members, since they documented a positive correlation with EM levels for both periods.

A study by Khalil and Ozkan (2016) relied on a sample of Egyptian firms listed on the Egyptian Exchange (EGX) between 2005 and 2012, representing 1,005 firm-year observations. Their study investigated the relationship between board independence and accruals levels. Employing Kothari *et al*, (2005)s' model as an indicator of managers' opportunistic behaviour, the researchers failed to document a significant role for such members within the Egyptian market. They attributed their findings to the fact that listed firms had appointed independent non-executive members as advisors, not as monitoring tools.

With respect to the Indian context, a study by Kapoor and Goel (2016) aimed to clarify the effects of firms' boards in enhancing firms' financial positions by constraining the EM issue. They devoted their research efforts to cover a sample of 297 active institutions from 2007 until 2012, and they found that, among the selected CG mechanisms, independent members were unqualified to constrain EM techniques.

Ianniello (2015) through his study aimed to shed light on the relationship between CG and the practice of enhancing earnings quality. The researcher selected a proportion of independent members as an index of board independence from a sample of firms listed on the Italian market between 2007 and 2010. However, the researcher failed to document any influence of independent members on improving earnings quality. He justified his results by claiming that independence standards may be close to formality style, rather than focusing on practical activities. Such an argument appears to be in line with institutional theory, which suggests that the monitoring role of independent members is insufficient, since they are presented only in response to governmental pressure.

Kumari and Pattanayak (2014) hypothesised that significant monitoring by independent members restricted EM within the Indian context. Selecting three main characteristics to estimate board independence (board size, non-duality and independent members) over a sample of twelve firms providing software services, their results indicated no correlation between accruals levels and the presence of independent members.

Abed *et al.* (2012) reported a positive correlation between the presence of independent members and EM estimated by the Jones Model (1991) from a sample of Jordanian firms listed on the ASE between 2006 and 2009. The main criticism of this study focused on the selected time period, in which CG codes were not yet legislated for the listed firms.

The family context attracted Prencipe and Bar-Yosef (2011) to study the effect of CG mechanisms on preventing discretionary accruals manipulation, targeting a stand of firms listed in Italy between 2003 and 2004. However, their main findings indicated a weak relationship between independent members' monitoring and their ability to act on behalf of minority shareholders.

The previous literature shows different points of view regarding the effects of introducing independent players to board structures to act on behalf of shareholders. Some empirical studies, such as Talbi *et al.* (2015); Abbadi *et al.* (2016); Alzoubi and Alzoubi (2016), found that such members played a crucial role in protecting shareholders' rights. Other studies, however, including Ianniello (2015); Kapoor and Goel (2016); Khalil and Ozkan (2016); Monsif Azzoz and Khamees (2016); Wan Mohammad *et al.* (2016), failed to find this connection. Even in the same context, the previous literature shows contradictory results. These conflicting results may be attributed to factors such as sample size, time periods, political, social and economic conditions and perhaps most importantly, different research methodologies and models.

3.4.2 External Directorship of Board's Members and Earnings Management

CG codes suggest a vast variety of mechanisms that may enhance corporate financial positions by limiting issues such as EM. One of the pivotal mechanisms is **"**external directorships" or "busy boards".

Recently, studies conducted by Lee and Lee (2014) and Jamaludin *et al.* (2015) have researched the effects of members serving on different boards simultaneously on a firm's performance and the integrity of its financial reports. In this vein, two schools of thoughts explain the main benefits and drawbacks of holding different directorships.

The advocate's researchers, as exemplified by Latif *et al.* (2013), rely on the "resource dependency theory" and the "reputation hypothesis" to explain their argument. According to the this argument, a firm should be interdependent with its surrounding environment in order to guarantee its survival (Salancik and Pfeffer, 1978). Because of this mission, boards of directors need to create various channels of relationships through external seats with different local firms to guarantee accessible and qualified sources of information and resources to achieve shareholders' goals (Salancik and Pfeffer, 1978; Cornforth, 2003). Based on the signalling theory, the presence of busy directors might deliver a clear message to shareholders and other groups that a board is experienced and qualified to maximising owners' wealth (Jiraporn *et al.*, 2009; Connelly *et al.*, 2011).

Scholars such as Adesua Lincoln *et al.* (2013); Latif *et al.* (2013); Lee and Lee (2014) have supported this argument, by explaining the main benefits of holding external directorships. They claimed that qualified, experienced members would be available to enhance a corporation's performance by restricting managerial discretion over financial reports. In other words, busy directors will gain a comprehensive monitoring view based on their accessibility to other firms' cases.

From the "*reputation hypothesis*" point of view, holding various directorships will motivate directors to act on behalf of a firm's principals to protect their accumulated reputation capital that has been obtained in recent years, specifically in terms of financially distressed corporations (Gilson, 1990). Furthermore, holding extra seats offers opportunities for directors to improve their financial rewards, which will lead to an enhanced lifestyle (Pathak and Sun, 2013; Kapoor and Goel, 2016).

On the other hand, several researchers have cited the "*busyness hypothesis*" as the main drawback of holding external directorships. For example, in most cases busy directors are characterised as being over-stretched managers, due to the huge number of tasks and responsibilities they hold for each firm. They lack the required time and effort to carry out their monitoring tasks efficiently, since they have to travel and divide their attention in order to communicate with various parties. In other words, as seen through the lens of this hypothesis, they lose their ability to oversee board activities and the financial reporting preparation process (Fich and Shivdasani, 2006; Jiraporn *et al.*, 2009; Sharma and Iselin, 2012; Baccouche and Omri, 2014).

In line with the "reputation hypothesis", Fernandez *et al.* (2016) tried to explore the impact of busy directors on the overall monitoring policy of constraining EM using a sample of 121 Spanish firms listed from 2004 until 2011. Their findings support "reputation hypothesis", by documenting beneficial monitoring roles of such experienced and qualified members in supporting firms' controlling policies.

Additionally, Lee and Lee (2014) investigated the effects of holding multiple directorships on corporate performance with a sample of East-Asia countries. Their findings revealed that, in specific settings, occupying multiple seats improved firm performance and constrained manipulation issues. In a similar vein, Bedard *et al.* (2004) and Saleh *et al.* (2005) argued that the likelihood of engaging in EM practices is negatively correlated with multi-organisation directors who have more experience, monitoring skills and knowledge than directors who sit on just one board.

Based on an article titled "*Can directors' self-interests influence accounting choices*?" Hunton and Rose (2008) investigated the effects of board members holding multiple directorships on the levels of accepting EM. They found that it was difficult for such members to accept and pass EM decisions. Those members sought to protect both shareholders' rights and their own reputations. These results indicate that directors who serve on multiple boards possess enough experience to oversee the accounting process during the preparation of financial reports in order to produce an accurate and creditable report.

On the other hand, evidence based on of 297 non-financial listed firms in India, presented in related literature, showed that busy directors were not experienced and qualified to adjust manager's opportunistic behaviour to align with owners' expectations (Kapoor and Goel, 2016).

Jamaludin *et al.* (2015) investigated the relationship between CG mechanisms and EM within the Malaysian context. Although applying the Kothari *et al.*, (2005) model to estimate EM using a sample of 26 non-financial listed firms, the researchers failed to find any significant relationship between busy directors and EM.

In their article titled "*Multiple Directorships of Boards Members and Earnings Management: An Empirical Evidence from French Listed Companies*", Baccouche and Omri (2014) reported on the effects of multiple directorships on EM levels. Covering a sample of 90 non-financial firms listed in 2008, they found a positive relationship between discretionary accruals and the number of external directorships held by a corporation's board members. This means that, as the number of external directorships increases, a board's member ability to restrict accruals manipulation decreases.

Additionally, evidence from the emerging markets has supported the busyness hypothesis, by reporting a positive correlation between multiple appointment directors and earnings management practices from a sample of 500 Indian firms in 2003 (Sarkar *et al.*, 2008).

From the previous mentioned studies, the busy directors' literature shows a shortage in such studies to evaluate the effects of busy directors on constraining the EM issue. This may be attributed to various reasons, such as, the availability of data regarding this mechanism that may restrict researchers' options.

3.4.3 Non-Duality Directors and Earnings Management

Another CG mechanism that may affect a board's monitoring behaviours is the separation between CEO and board chairman. CEO duality has been defined as "*someone [who] acts as a CEO while at the same time, he is also the chairman of board*" (Mallin, 2011). The CEO is prohibited from holding both positions in order to confirm that he or she does not have unmonitored authority (Alghamdi, 2012; Khalil and Ozkan, 2016). Mallin (2011) claimed that the absence of such separation presents a CEO as a powerful person who has magnifying power to direct board activities and decisions. When this is the case, it is very difficult for a board to track opportunistic decisions and to punish guilty CEOs.

The effects of such a separation fuel a controversial issue. Previous literature shows two points of view regarding the feasibility of CEO/chairman separation. One camp relies on agency theory to corroborate its arguments. These scholars note that one of the main features of a qualified board is independence and that this cannot be achieved unless there is a real separation between the chair and any other executive position (Abdul Rahman, 2006; Alghamdi, 2012). This separation is expected to have a deterrent effect on constraining management hegemony over board decisions (Chen and Zhang, 2014; Iqbal *et al.*, 2015).

Indeed, CEO duality may create a centralised decision-making process and provide an ideal environment for managers to predetermine the board's main agenda and arrange board meetings for specific dates to affect the flow of accounting information to the firm's interested users (Cornett *et al.*, 2008; Kumari and Pattanayak, 2014; Khalil and Ozkan, 2016).

Opponents of this separation rely on the stewardship theory, which is considered to be a significant counterweight to other theories, such as the agency theory. The stewardship theory simplifies the current situation of conflicts of interest between agents and principals, claiming that no harm results from conflicts of interest between firms' managers and owners (Donaldson and Davis, 1991). It also claims that managers are expected to act effectively to maximise shareholders' wealth by making benign decisions (Donaldson and Davis, 1991). CEO duality is a prime example of the stewardship theory. In this regard, firms should treat agents as stewards—not employees—since they are considered to be loyal actors on behalf of shareholders.

In other words, this theory asserts that the CEO's actions and behaviour are aligned with shareholders' goals (Pastoriza and Ariño, 2008). Thus, managers lack incentives to divert and affect the firm's reports to achieve their own goals. Managers are willing to enhance a firm's performance when their remunerations are directly connected to firm's earnings (Donaldson and Davis, 1991; Rechner and Dalton, 1991).

From the emerging markets context, Muttakin *et al.* (2017) pointed out that, duality managers were found to more flexible in practicing discretionary accruals techniques in comparison with other directors. Their research was based on a stand of listed firms within the Bangladesh context.

Using Egyptian data extracted from 125 listed firms between 2005 and 2012, Khalil and Ozkan (2016) findings support agency theory, by reporting a significant positive association between EM and duality managers at a significance level of 0.05.

Iqbal *et al.* (2015) observes a positive association between EM levels estimated by the Modified Jones Model (1995) and dual-role managers, based on 89 non-financial firms listed on the Karachi Stock Exchange (KSE).

Based on data collected from a sample of Chinese institutions available between 2002 and 2012, Ming-Feng and Shiow-Ying (2015) investigated the effectiveness of ownership structure and board of directors' characteristics to adjust managers' behaviour to act on behalf of principals' interests. Their results indicated that duality managers were more likely to achieve market expectations through discretionary accruals.

Covering the fiscal years between 2003 and 2012, Latif and Abdullah (2015) conducted an investigation to examine the effect of boards of directors, ACs and ownership on constraining the EM phenomenon in Pakistan. A sample of 120 non-financial firms listed on the Karachi Stock Exchange (KSE) revealed a positive correlation between duality managers and EM estimated by the Jones Model (1995).

Kumari and Pattanayak (2014) applied the Jones Model (1991) as an index of accrual actions over a sample of 12 Indian service firms between 2007 until 2012. Their study found that dual-role managers engaged in earnings manipulation.

Using the judgmental sampling approach, Uwuigbe *et al.* (2014) surveyed 40 firms listed on the Nigerian Stock Exchange (NSE) to explore the effects of duality managers on earnings management. The researchers found that the existence of dual-role managers offered a supportive environment for Nigerian managers to practice EM techniques within the sampled firms.

In contrast, some studies— such as those conducted by Kao and Chen (2004), Abdul Rahman (2006), Hashim, and Devi (2010), found that non-duality managers did not have a crucial effect on accruals levels. Furthermore, Peasnell *et al.* (2000) explored the nature of correlation between duality CEOs and accruals levels within the UK context. Focusing on 1,000 listed firms, they found no correlation.

However, this disharmony in results is caused by different reasons, such as social and cultural effects on financial markets and the presence of blood or friendship relationships between the CEO and the chair person (Alghamdi, 2012).

3.4.4 Board Size and Earnings Management

There is an ongoing discussion in the current literature regarding whether, or not, the size of a firm's board affects the quality of its financial reports. Previous studies have revealed contradictory results and have not yielded a firm conclusion about an optimum size for efficient boards. In other words, a predetermined size is not applicable for all settings and economies since each economy has unique features in terms of political, social and economic conditions (Jamaludin *et al.*, 2015; Essa *et al.*, 2016).

However, this debate introduces several viewpoints in terms of the effect of board size. The first is based on agency theory, which suggests that large boards present a more noticeable controlling mechanism than small boards (Habbash, 2010). This logical assumption concentrates on the presence of independent members on large boards. As a board size increases, so does the probability of introducing independent members to achieve CG code requirements. As a result, an efficient and qualified board will constrain

EM, which will ultimately lead to enhanced integrity and quality in financial reports (Fama and Jensen, 1983).

Furthermore, such a diverse, independent and knowledgeable board will distribute tasks and responsibilities efficiently among board members, which will lead to an improved board-monitoring role in order to align agents' and principals' interests (Klein, 2002; Tarak Nath and Apu, 2013). Another merit of large boards is their ability to break family dominance over boards' activities and decisions (Zahra and Pearce, 1989; Alghamdi, 2012).

Opposing studies support a different argument concerning board size. In this vein, small boards ranging from four to six members are seen as efficient monitoring boards, especially when constraining opportunistic behaviour by CEOs (Goodstein *et al.*, 1994). Small boards also are characterised as having smooth and efficient communication channels to discuss firm matters and to oversee managers' actions (Jensen, 1993; Iqbal *et al.*, 2015).

Previous literature adopts the agency theory perspective regarding board size. Indeed, large boards showed adequate levels of monitoring responsibility towards manipulative actions.

Targeting a large groups of listed firms in Vietnam between 2010 until 2014, Essa *et al.* (2016) found board size to be one of the main factors that affected EM levels, based on a set of data extracted from 570 firms. Indeed, they documented a noticeable monitoring role of large boards in constraining the EM phenomenon.

Focusing on a group of 26 non-financial firms listed from 2005 to 2010, Jamaludin *et al.* (2015) used Malaysian data to scrutinize the relationships between CG, board of directors' characteristics and EM actions. Using multiple regression analysis, their findings revealed a negative correlation between board size and discretionary accruals levels.

In Turkey, Aygun *et al*. (2014) conducted an investigation to test the effects of firm ownership and board size on discretionary accruals. To achieve their research goal, the researchers selected a sample of Turkish firms listed on the Istanbul Stock Exchange (ISE) between 2009 and 2012. The Modified Jones Model (1995) was employed as a dependent variable. The researcher found a positive monitoring relationship between large boards and the curbing of EM practices.

Another example is presented by Uwuigbe *et al.* (2014), who found that large boards resulted in improved board oversight and, thus, constrained EM practices. They used a sample of 40 Nigerian firms between 2007 and 2011.

Employing the Modified Jones Model (1995) on data collected from 12 Indian service firms for the years 2011 and 2012, Kumari and Pattanayak (2014) investigated the effectiveness of board size in inhibiting managers from adopting EM practices. They found that a small board played a weak role in constraining earnings manipulation.

Similarly, Habbash (2010) reached a similar conclusion regarding board size in the UK context. His research investigated the effect of CG on constraining EM estimated by discretionary accruals. Covering 471 UK listed companies, the researcher found a negative correlation between discretionary accruals and large boards between 2003 and 2006. His results indicate that large boards are inclined to protect shareholders' interests in comparison to small boards.

However, another group of studies have revealed different findings. A recent study covering firms listed on the Karachi Stock Exchange revealed a contradiction to agency theory. Iqbal *et al.* (2015) submitted various hypotheses in line with agency theory regarding CG roles in constraining the accruals phenomenon. However, the main regression showed a positive relationship between board size and discretionary accruals estimated by the Modified Jones Model (1995).

An investigation by Ramachandran *et al.* (2015) also studied the monitoring roles of CG mechanisms in restraining managers from adopting EM decisions. The core goal of their research was to shed light on the relationship between discretionary accruals response and the monitoring characteristics of boards of directors and AC. Focusing on 326 firms listed on the Singapore Stock Exchange, the researchers found a positive correlation between discretionary accruals and board size.

Talbi *et al*. (2015) investigated the effects of CG mechanisms on constraining REM. Relying on 7,481 US firms listed between 2000 until 2009, and using different CG mechanisms, such as board size and the presence of independent members to evaluate a board efficiency in constraining REM, the researchers concluded that the likelihood of earnings manipulation increases along with an increase in board size.

The Malaysian context also showed that large boards play an insignificant monitoring role in constraining accruals manipulation and improving the quality of financial reports (Jamaludin *et al.*, 2015).

However, both results are acceptable, but they come from different contexts and settings (Alghamdi, 2012). Therefore, aligning any conclusion to a specific context is not applicable, since each market has specific and unique institutional settings. Therefore, the inconsistency in the obtained results may be affected by the overall conditions and settings of the contexts in which the studies have been set.

3.4.5 Board Meetings and Earnings Management

The vast variety of CG mechanisms considers a firm's board of directors to be a core monitoring tool for minimising conflicts of interest (Chen and Zhang, 2014). In addition to the previous mechanisms, board meetings are a good signal of a board's industriousness and its transparency in overseeing a firm's operations (Alghamdi, 2012). Active boards showed crucial monitoring behaviour in monitoring firms. Some arguments explain that active boards who conduct steady and organized meetings carry out their monitoring tasks more efficiently than less-active boards (Habbash, 2010). More active boards showed flexibility in allocating more time and effort, in order to take their monitoring responsibilities seriously to constrain accruals manipulations for instance (Elijah and Ayemere, 2015).

Current studies reveal dissent regarding the relationship between board meetings and the effectiveness of a board's oversight activities. Some research asserts that directors who meet regularly are more diligent regarding the deterrence of opportunistic decisions in accruals.

French research carried out by Halaoua *et al.* (2017) studied the effect of CG structure on EM levels with a group of firms totalling 1,771 firms-years observations collected between 2002 until 2012. They found that active boards with systematic meetings were negatively correlated with EM levels.

Zgarni *et al.* (2014) assumed a pre-expectation of negative correlation between REM and board meetings within the Tunisian context. This study applied the Chowdhury Model (2006), and was based on data collected from 29 non-financial firms. The results were in line with their expectations, concluding that active boards play a significant monitoring role in constraining discretionary expenses issues.

Further evidence, this time from Latin American markets, was presented by González and García-Meca (2014). Their research explored whether CG mechanisms presented by board meetings influenced discretionary accruals levels. A sample of non-financial listed corporations between 2006 and 2009 was selected. Their findings asserted the importance of board meetings in constraining accruals manipulation.

Sorin *et al.* (2012) used a sample of Romanian listed firms for the fiscal period 1990–2010 in order to investigate the correlation between CG mechanisms (board meetings) and EM practices. The results documented that the prevalence of EM activities was less pronounced within firms with active boards.

Nevertheless, a few investigations have failed to support the agency theory perspective regarding the importance of board meetings. Hyo Jim and Soon Suk (2008) selected a sample of firms listed on the Korean Stock Exchange (KRX) for the period 2004–2005. The researchers found that board meetings did not have any noticeable effect on mitigating EM practices. In a similar vein, Ebrahim (2007) explored the relationship between CG mechanisms and opportunistic management behaviour, targeting a group of U.S. manufacturing firms listed in 2002. Using the Jones Model (1991) to estimate discretionary accruals manipulation, the researcher failed to support previous literature that indicated that active boards are able to constrain accruals issues.

In summary, previous investigations have not definitively concluded whether active boards' exhibit enhanced monitoring responsibilities. Thus, the previous results cannot be used in different contexts to evaluate active board effectiveness (Habbash, 2010; Alghamdi, 2012). Based on the previous literature, the monitoring role of board meetings is still ambiguous. Extended research is required to resolve the ambiguity related to board meetings.

3.4.6 Summary of Board of Directors Characteristics Literature

This section summarises the previous studies conducted on a board of director's characteristics and EM. Furthermore, this part also sheds light on the main weaknesses observed in the previous literature.

The studies presented in table 3-1 were based on developed markets, and investigated the effectiveness of a board of director's characteristics in constraining EM activities. Furthermore, a few initiatives have been directed to cover some emerging markets in the Middle East region.

However, table 3-1 demonstrates mixed findings about the monitoring roles of the board characteristics. This contradiction in results could be attributed to the different factors that may affect a board's monitoring activities, from being a deterrent to achieving CG goals. Hence, the main criticisms are the covered time periods. According to Chen and Zhang (2014), financial markets need sufficient time to understand the CG requirements, which will eventually lead to a real and effective adoption of these codes. Therefore, selecting short periods, such as one or two years, as is the case with most of the previous studies, may affect the validity of any results, as the context cannot capture the real effects of the CG codes.

The current research tried to overcome this issue by focusing on six fiscal years (2009–2014), therefore offering the required time for the Jordanian listed firms to understand some of the requirements, such as independency and the board's subcommittees.

Secondly, various studies have used the dummy variable approach to estimate some of the CG mechanisms such as independency. A good example was presented in the study carried out by Abbadi *et al.* (2016), who used this technique to estimate the CG variable. Such an approach does not give the researcher the flexibility to efficiently explore the effects, since the values will be zero or one, and the researcher cannot track the effect of variance in this variable among the firms. As a result, the current research adopted the ratio approach to estimate this variable to avoid any problems with the dummy variable approach.

Thirdly, although the reported studies covered developed markets, the sample size in some studies was small or focused on a specific sector within the overall market. For example, some studies concentrated on the industrial, banking, service or technology sectors, and such results cannot be widely generalised, since each sector has unique features and conditions. Hence, this study covers the non-financial sectors in ASE, to evaluate the effectiveness of CG code, based on a full sample in Jordan.

Furthermore, some studies controlled for just two variables, without taking into account the effects of other control variables, such as a big-four auditor or ROA. Therefore, any results obtained may not reflect the actual impact of the CG code. To avoid this problem, this study covers four control variables to evaluate CG effectiveness efficiently.

Finally, some Jordanian studies have showed some of proactive investigations used to evaluate the effects of the CG code on EM. The main drawback attached to these studies is that they lack adequate levels of CG disclosure concerning some of the mechanisms. This has led to various approaches being used, such as adopting a predetermined CG index, which applies a dummy variable method to estimate variable values. Therefore, to solve this issue, this research focused on six financial periods starting in 2009, which was the year of enacting the CG code, until 2014.

Table 3-1 Summary of the Previous Studies Regarding Board Characteristics and EM

Reference	Research Issue	Sample Size	EM Proxy	Country	Findings
Muttakin et al. (2017)	To examine the monitoring effects of duality managers on audit quality levels.	917 firms-year observations	Audit quality measurements	Bangladesh	Duality managers were found to more fixable in practicing discretionary accruals techniques.
Halaoua et al. (2017)	Studied the effect of CG structure on EM levels.	1771 firms-years observations	Kothari et al, (2005)	U.K.	Active board meetings with systematic meetings were negatively correlated with EM levels.
Khalil and Ozkan (2016)	This study investigated the relationship between board independence EM.	1,005 firm-year observations	Kothari *et al*, 2005	Egypt	The researchers failed to document significant roles of independent members and duality managers within the Egyptian market.
Abbadi *et al.* (2016)	Explored the monitoring effects of a pre-selected stand of CG mechanisms on EM levels in Jourdan.	121 listed firms	Jones Model (1991) and CG index	Jordan	CG mechanisms in general (independent members) have restricted discretionary accruals.
Alzoubi and Alzoubi (2016)	Investigated the impact of disclosure quality and CG on discretionary accrual levels.	86 industrial firms	Modified Jones Model (1995)	Jordan	A significant negative correlation between independent members and managers opportunistic behaviours.
Monsif Azzoz and Khamees (2016)	Explored the impact of CG mechanisms on earnings management levels Jordan.	73 financial firms	Modified Jones Model (1995)	Jordan	Weak monitoring roles of the independent members in constraining the absolute value of discretionary accruals.

Wan Mohammad et al. (2016)	Examine whether listed firms have utilized independence requirement in constraining EM.	201 manufacturing companies	Modified Jones Model (1995)	Malaysia	Manufacturing companies were not efficient to take advantage of such members to constrain EM.
Kapoor and Goel (2016)	Aimed to clarify the effects of firm's boards in constraining EM issue.	297 listed firms	Modified Jones Model (1995)	India	Independent members were unqualified to constrain EM techniques and busy directors were not efficient to constrain E.M.
Fernandez et al. (2016)	Tried to explore the impact of busy directors on the overall monitoring policy by restricting EM.	121 listed firms	Modified Jones Model (1995)	Spain	Beneficial monitoring roles of such experienced and qualified members in supporting firms' controlling policies.
Essa et al. (2016)	To shed light on board size effect on EM levels.	570 firm	Modified Jones Model (1995)	Vietnam	Found board size as one of the main factors that affect EM levels 570 firm.
Ianniello (2015)	Aimed to shed light on the relationship between independent members and earnings quality.	588 firm-years	Abnormal working capital	Italy	The researcher failed to document any influence of independent members on improving earnings quality.
Talbi et al. (2015)	To investigate the efficiency of CG mechanisms (independent members) in constraining earnings.	7,481 firms	Roychowdhury (2006)	U.S	Only independent members were found to have the upper monitoring hand in constraining earnings management.
Iqbal *et al.* (2015)	Investigate the impact of CG mechanisms (duality-function) on discretionary accrual levels.	89 non-financial firm	Modified Jones Model (1995)	India	Observed a positive association between discretionary accruals and dual-role managers & board size.

Jamaludin *et al.* (2015)	Investigate the relationship between busy director and accruals manipulations.	26 listed firm	Kothari *et al*, 2005	Malaysia	The researchers failed to document a negative association between external directorships and discretionary accruals. In contrast, they found a negative correlation between board size and discretionary accruals levels.
Ming-Feng and Shiow-Ying (2015)	Explore the monitoring roles of ownership and CG mechanisms in constraining earnings management.	1,858 listed firms	Modified Jones Model (1995)	Chania	Duality managers were more likely to achieve market expectations through discretionary accruals.
Latif and Abdullah (2015)	Examine the effect of boards of directors, on constraining discretionary accruals.	120 non-financial firms	Modified Jones Model (1995)	Pakistan	Positive correlation between duality managers and discretionary accruals.
Ramachandran *et al.* (2015)	Shed light on the relationship between discretionary accruals response and the board size.	326 firms listed	Jones Model (1991)	Singapore	Positive correlation between discretionary accruals and board size.
Chi *et al.* (2014)	Aimed to explore the effect of independent members in constraining accruals prevalence in family firms.	379 high-technology firms	Jones Model (1991)	Taiwan	A significant negative correlation between independent member's presence and discretionary accruals.
Habbash *et al.*, 2014)	The goal was to analyse the monitoring roles of independent members in earnings management activities.	9,370 firm-year observations	Modified Jones Model (1995)	China	The existence of independent members had a positive impact on the overall monitoring process.

Chen and Zhang (2014)	To check the feasibility of enacting CG code to constrain accruals manipulations. Specifically (board independency).	447 firms per year	Jones Model (1991)	China	A significant negative association between independent members and discretionary accruals levels.
Zgarni *et al.* (2014)	Investigated the relationships between board of directors characteristics and earnings management techniques.	29 non-financial firms	Roychowdhury Model (2006)	Tunis	Negative association between boards meetings & independent members and earnings management actions.
Kumari and Pattanayak (2014)	To investigate the effect of board characteristics (independent members) on Accruals levels.	12 software service firms	Modified Jones Model (1995)	India	No correlation between accruals levels and the presence of independent members.
Baccouche and Omri (2014)	To shed light on the impact of multiple directorships on earnings managements practices.	90 non-financial firms	Kothari *et al*, 2005	France	Positive relationship between discretionary accruals and the number of external directorships held by a corporation's board.
Lee and Lee (2014)	Investigated the effects of holding multiple directorships on corporate performance.	1482 firm	--	Six-East Asian countries	Occupying multiple seats improves firm performance and constrains manipulation issues.
Uwuigbe *et al.* (2014)	Explore the effects of duality managers on earnings management.	40 firms	Survey	Nigeria	The existence of dual-role managers offered a supportive environment to practice earnings management. In contrast, large boards resulted in improved board oversight.
Aygun et al. (2014)	Examine the effects of firm ownership and board size on discretionary accruals.	230 listed firm	Modified Jones Model (1995)	Turkey	Positive monitoring relationship between large and the curbing of E.M manipulation.

González and García-Meca (2014)	Investigating the effect of CG mechanism on accruals activities.	1,740 observations	Jones Model (1991)	Latin American markets	Their findings asserted the importance of board meetings in constraining accruals manipulation.
Odia and Ogiedu (2013)	To elect participants perceptions regarding the effectiveness of independent members on creative accounting.	98 questionnaire	Questionnaire	Nigeria	The researchers found that, a high proportion of independent members plays an important role in constraining managers' opportunistic behaviours.
Abed *et al.* (2012)	To explorer the monitoring role independent members in constraining Accruals actions.	329 firm-observations	Jones Model (1991)	Jordan	Positive correlation between independent member's ratio and discretionary accruals levels.
Razek (2012)	Investigating the association between CG and earnings managements issue.	34 participant	Online -Survey	Egypt	Documented a key monitoring role in boards that have non-duality directors in constraining accruals activities.
Liu (2012)	To shed light on the effect of board structure in constraining discretionary accrual actions.	138 listed firms	Jones Model (1991)	Australia	A higher incidence of CEO duality is significantly related to lower levels of earnings management.
Sorin *et al.* (2012)	Investigate the correlation between board meetings and earnings management practices.	57 Article	Content Analysis	Romaine	The prevalence of earnings management activities was less pronounced within firms with active boards.
Gulzar (2011)	The purpose was to investigate the efficiency of CG characteristics.	1009 firms	Abnormal working capital	China	Failed to find any evidence of independent members in constraining accruals behaviours.

Murhadi (2010)	Investigated the effectiveness of different corporate mechanisms on curbing E.M practices.	384 years of observation	Jones Model (1991)	Indonesia	As the level of duality increased so did the likelihood of engaging in earnings manipulation.
Habbash (2010)	Exploring the effect of board size on discretionary accruals levels.	471 UK listed firms	Kothari *et al*, 2005	U.K	Found a negative correlation between discretionary accruals and large boards.
Siregar and Utama (2008)	Explored the effects of ownership structure and internal CG mechanisms in curbing Indonesian managers from manipulating EM	144 firms	Jones Model (1991)	Indonesia	They found a weak effect of independent members in hindering managers from manipulating earnings figures.
Sarkar *et al.*, 2008	Examining the monitoring roles of board of directors in enhancing the quality of financial reports.	500 listed firm	Jones Model (1991)	India	Reported a result, which support the busyness hypothesis that suggest a positive correlation with discretionary accruals.
Hunton and Rose (2008)	Investigated the effects busy directors on the levels of accepting earnings manipulation.	88 audit committee member	Questionnaire	U.S	Busy directors showed a difficulty in accepting and passing accruals manipulations in compare with other directors.
Ebrahim (2007)	Explored the relationship between CG mechanisms and opportunistic management.	2,360	Jones Model (1991)	US	Active boards fail to have a considerable monitoring effect in terms of restricting discretionary accruals levels.
Saleh *et al.* (2005)	To assess the effectiveness of CG mechanisms in constraining managers incentives to practice accruals manipulations.	651 firm-observations	Jones Model (1991)	Malaysia	The likelihood of engaging in discretionary accruals practices is negatively correlated with multi-organisation directors

3.5 Audit Committee Mechanisms and Earnings Management

Establishing a diverse and independent board of directors is not enough to achieve CG goals. A strong board should work in tandem with other mechanisms, such as an AC. As a delegated body representing board of directors, an AC should execute crucial tasks in order to guarantee the firm's survival (Chen and Zhang, 2014). Various CG codes confirm the importance of forming a highly qualified AC composed of competent members who are critically aware of their monitoring responsibilities in order to ensure the accuracy and transparency of the financial statements (Klein, 2002; Kapoor and Goel, 2016).

In other words, a qualified AC plays a pivotal role in constraining directors' manipulative decisions by monitoring board activities concerning judgments and estimations policies (Klein, 2002; Chen and Zhang, 2014).

A qualified AC has an inherent duty to control and minimise information asymmetry levels by disclosing the most significant information without any prejudice to a specific group (Klein, 2002; Albersmann and Hohenfels, 2017). Such a central role can enhance the quality of investors' decisions and allow them to maximise their personal wealth.

In general, the presence of a qualified and knowledgeable AC, serving alongside an independent board of directors, will restrict any manipulation and lead to fewer conflicts of interest between agents and principals (Alghamdi, 2012; Chen and Zhang, 2014). The current research thus selected three main mechanisms to evaluate the monitoring role of an AC: the existence of the AC, the independence of the AC and the frequency of AC meetings.

The rationale for selecting this stand of mechanisms is that Jordanian listed firms were not required to establish a separate AC to oversee the accuracy of financial statements prior to implementation of CG code in 2009. Indeed, accounting and finance departments carried out most corporate monitoring tasks (Shanikat and Abbadi, 2011). In this case, and according to Chen and Zhang (2014), the most appropriate way to evaluate an AC's role where CG is still a new issue is by using the three mechanisms mentioned. In addition, the published data concerning AC restricted the researcher's choices.

3.5.1 The Existence of Audit Committee and Earnings Management

An AC is viewed as a core-monitoring tool for enhancing the quality, transparency and integrity of corporate financial statements. In general, the presence of an AC in a firm's structure may restrict the occurrence of EM practices. McMullen and Raghunandan (1996) reported that the existence of an AC helps to protect companies from dealing with enforcement issues imposed by the SEC and from taking revision steps to its reports.

Establishing a qualified independent AC serves the overall auditing process by ensuring supervision of accounting choices that may affect the reported number. In addition, a qualified committee will organise and coordinate the expected communications between internal and external parties in order to protect external auditor independence from being influenced by the board of directors (Chen and Zhang, 2014; Kankanamge, 2016) .

Recently, Albersmann and Hohenfels (2017) found German firms that established a separate AC were more efficient in cutting down discretionary accruals levels in comparison to other firms. Their study relied on a sample of listed institutions on the German market between 2005 and 2009 and applied an accruals approach to estimate EM.

Using a sample of 447 Chinese listed firms from 2000 to 2006 data, Chen and Zhang (2014) provided evidence that the presence of an AC curbed EM. In general, their findings revealed a positive effect of a CG code on constraining discretionary accruals actions and, ultimately, improving the quality of financial reports.

Omoye and Eriki (2014) found that an AC plays a significant monitoring role in reducing EM practices. Their study reported a negative correlation between EM and the presence of a separate AC, from a sample of 130 Nigerian listed firms between 2005 and 2010.

Relying on agency theory as a solid framework to investigate the effects of AC presence in France, Piot (2004) reported that the ACs plays a pronounced monitoring role minimising conflict of interest between shareholders and managers. He used a sample of 285 French listed firms. In addition, Piot and Janin (2007) studied the role of AC features—namely, auditor reputations, tenure and the effects of AC existence and independence on EM. Conducting their research in a different institutional context (France) and with different CG requirements, they concluded that EM practices had been curbed by the presence of ACs and independent members.

In contrast, Spanish evidence contradicts the majority of previous findings and agency theory suggestions regarding the importance of establishing a separate AC. Osma and Noguer (2007) investigated the effects of two key CG mechanisms—boards of directors and audit committee presence—on firm structure. Their findings failed to document the classic monitoring role of the AC. Instead, they found that the presence of an AC did not serve CG goals in constraining EM prevalence. Similarly, evidence provided by Peasnell *et al.* (2005) reported that introducing a separate AC had a weak monitoring effect on constraining EM, specifically income-increasing techniques.

However, this diversity in findings may be attributed to various issues, such as the awareness levels of various parties regarding the importance of establishing a separate AC in a firm's structure, or as a result of concerns in terms of sample size, period of time or other CG variables.

3.5.2 The Independence of Audit Committee and Earnings Management

It is informative to identify the characteristics of an AC that enhance its independence, transparency and crucial monitoring role. The existence of a separate AC is not the only factor that makes the committee effective. A strong AC should have distinctive features that make it able to monitor financial reporting. One of the main features is independence (Chen and Zhang, 2014).

In previous literature regarding the monitoring roles of AC, the presence of independent members has been widely recognised as the most important feature of a strong committee (Lin *et al.*, 2006; Alghamdi, 2012). However, the majority of previous investigations have documented a negative correlation between AC independence and EM in general. This key conclusion explicitly supports agency theory, which proposes a clear monitoring role for independent members (Chen and Zhang, 2014). In the same vein, another stand of studies revealed a positive correlation between AC independence and manipulation issues in specific conditions (Fodio *et al.*, 2013; Hamdan *et al.*, 2013).

Evidence provided by Kankanamge (2016) presented independent members as an important monitoring player to constrain discretionary accruals, estimated by the Kothari *et al*, (2005) model across a sample of 50 listed firms in Sir Lanka between 2012 and 2015.

In the Indian context, an investigation by Iqbal *et al.* (2015) provides proof that EM practices, estimated by the Modified Jones Model (1995), were inversely correlated with AC independence. In other words, they reached a crucial conclusion that a totally independent AC is more powerful in detecting financial infractions caused by opportunistic managers.

Chen and Zhang (2014) explored the effects of mandating CG regarding the use of discretionary accruals. Specifically, their research investigated the effects of AC characteristics (e.g. AC existence, independence and financial expertise) on discretionary accruals. Employing the Jones Model (1995) as an index of managers' manipulation, they documented a negative correlation between accruals manipulation and the independent members serving on an AC after the Chinese CG code was activated in 2006.

French evidence came to the same conclusion regarding AC independence and its role in constraining accruals manipulations. Faried (2014) investigated the effects of independent ACs on the occurrence of EM manipulation and its effect on the quality of financial reports. Employing the Jones Model (1995) on a French sample, the researcher found that an effective AC does indeed constrain manipulation of earnings by managers.

Sharma and Kuang (2014) selected a sample of 194 New Zealand firm-year observations between 2004 and 2005 to study the influence of independent ACs on aggressive EM. Their study revealed that an entirely independent AC reduces the overall likelihood of adopting aggressive discretionary actions.

In their article titled "*Earnings Management, Audit Committee Effectiveness and the Role of Blockholders Ownership: Evidence from UK Large Firms*," Habbash *et al.* (2013) investigated the impact of ACs on EM. Based on data collected from 350 large firms in the UK, their findings posited a positive correlation between the quality of financial reports and the proportion of independent AC members.

The Malaysian context contributes to AC literature through a study by Mohd Saleh *et al.* (2007), who targeted a sample of Malaysian listed firms to evaluate the monitoring roles of ACs in curbing the incidence of EM. Selecting characteristics such as independence, meetings and financial expertise to assess AC monitoring roles, the researchers reported that AC plays a crucial monitoring role in reducing discretionary accruals decisions.

In contrast, a recent study from the Gulf area, carried out by Juhmani (2017), aimed to study in depth the monitoring behaviours of ACs, based on 31 Bahraini listed company between 2012 and 2014. After calculating EM by using the modified Jones (1995) model, the results contradicted his basic assumption and, further, he failed to document any monitoring effects by such members in protecting the principal's financial interest.

Within the Jordanian context, Hamdan *et al.* (2013) evaluated the AC monitoring roles in constraining EM. Applying the Modified Jones Model (1995) to fifty industrial listed firms between 2004 and 2009, their study did not document any significant monitoring role of independent members in constraining managers' opportunistic behaviour. Indeed, the main drawback of this study could be summarised as follows: the researchers used dummy variable techniques to estimate AC independency, and this approach contradicts most of the previous studies which have used the ratio as an index of AC independence.

Secondly, the Jordanian CG code was legislated in 2009, and the research time period was from 2004 to 2009, which may have led to insignificant results since most of the listed firms in this period did not disclose the required information concerning audit committee structure. Finally, the scope of this study covered only fifty industrial firms, and this result cannot be generalised to the entire Jordanian context, since the industrial sector does not represent the overall market in Jordan.

Studying a different region (Nigeria), Fodio *et al.* (2013) used listed insurance firms to examine the relationships between CG mechanisms and earnings quality estimated by the Modified Jones Model (1995). Concentrating on board size, board independence, AC independence, AC size and independent external auditors to cover CG recommendations, their results reported a positive correlation between AC independence and external independent auditor and EM levels.

To sum up, the literature shows different conclusions regarding the effects of AC independence in constraining EM. In general, most of the previous investigations have asserted the importance of introducing independent members to enhance the overall auditing process. The variety in the findings could be attributed to different causes, for example, social and economics settings, ownership diversity and the levels of understanding of the AC's role as a monitoring mechanism.

3.5.3 Active Audit Committee and Earnings Management

Unquestionably, AC productiveness depends on characteristics that enhance committee-monitoring activities, for example, frequent meetings. Well-functioning and dynamic ACs increase the committee's overall success in minimising manipulation issues such as EM (Abdul Rahman, 2006). Furthermore, an active committee is expected to improve a firm's financial performance by monitoring directors' financial policies (Alghamdi, 2012). Klein (2002) claims that AC meetings can be a crucial indicator of a committee's independence. Holding frequent AC meetings offers sufficient time for members to devote to their monitoring efforts and to perform their operational duties efficiently (Lin and Hwang, 2010).

Most previous studies and CG codes have pointed out the importance of meetings in reducing EM actions taken by boards of directors. In other words, firms whose ACs meet frequently are less motivated to allow the passage of accounting irregularities (Chen and Zhang, 2014).

The most recent evidence regarding AC roles in constraining EM phenomenon covers the German context and was collected by Albersmann and Hohenfels (2017). In detail, they explored the relationships among AC characteristics and accruals issue based on a selection of German companies listed between 2005 until 2009. They reported that, on average, (4 to 5) meetings appeared to be enough to correlate negatively with discretionary accruals in Germany.

Additionally, Mishra and Malhotra (2016) aimed to introduce Indian evidence regarding AC effectiveness in improving firm's financial statements quality. Analysing a set of secondary data covering three years (2013-2015) with a sample of 130 listed firms, the researchers supported the agency theory framework by providing distinctive evidence that ACs with regular meetings played a significant monitoring role in enhancing earnings' quality by constraining EM practices.

Similarly, Kankanamge (2016) noticed that the presence of qualified, active and independent ACs reduced the gap between firms' agents and principals by reducing the usage of discretionary accruals techniques estimated by the Kothari *et al*, (2005) model using a sample of 150 listed firms in Sir Lanka between 2013 and 2015.

Using cross-sectional data for the fiscal year 2013, Alzoubi (2016) used Jordanian data to clarify his research question about whether an active AC can constrain EM, based on 62 industrial firms listed on the ASE. After testing the main hypothesis, the researcher reported that active committees with regular meetings were more effective in limiting the adoption of EM techniques in Jordan.

Adopting the theoretical perspective that suggests a noticeable monitoring effect of active ACs in constraining the EM issue, Elijah and Ayemere (2015) documented an effective monitoring role of AC characteristics in general, and AC meetings specifically, in constraining EM issues in Nigeria.

However, a number of previous studies have shown contradictory findings in terms of AC meetings. For example, Juhmani (2017)'s findings failed to find any monitoring value of such meetings in supporting the overall monitoring policy of ACs within the Bahraini context. He carried out this research to study the relationships between AC characteristics and EM by applying the Modified Jones model (1995).

However, and despite using two different model to estimate discretionary accruals levels in Malaysia, Al-Rassas and Kamardin (2015) failed to support their theoretical framework which proposed AC as a main defence line regarding shareholders' interests. Indeed, they document a significant positive correlation between EM and frequent AC meetings within the Malaysian context between 2009 until 2012.

A UK study by Habbash *et al.* (2013) investigated the effects of specific AC characteristics, notably committee size, frequency of meetings and independence on discretionary accruals levels, with a sample of 350 listed firms between 2006 and 2007. Interestingly, their results were contradictory, indicating an insignificant relationship between AC diligence and discretionary accruals practices.

Interestingly, the conflicting results make it difficult to draw a clear picture of the role of active ACs on restricting the use of EM practices in different contexts. Some scholars such as Habbash (2010) claimed that, using AC meetings as an index of committee effectiveness may not yield to a valid conclusion regarding the effect of such mechanism in constraining EM.

3.5.4 Summary of Audit Committee Characteristics Literature

This section summarises the previous literature regarding AC characteristics and EM and also presents the main weaknesses observed in the previous literature.

Table 3-2 shows that most previous studies, in general, implicitly have assumed the existence of a separate AC in a firm's structure. Based on this assumption, these studies have generalised their results to the overall market or context. To avoid this problem, some studies, such as Chen and Zhang (2014), Osma and Noguer (2007), and Piot and Janin (2007), tried to add a dummy variable to check the existence of a separate AC in their samples, to avoid any obstacles in generalising their results over their samples. In line with this trend, this current research used a dummy variable to check AC presence in a firm's structure, since most of the Jordanian listed firms did not establish a separate AC in their structure before activating the CG code in 2009 (Shanikat and Abbadi, 2011).

Regarding the time horizon, most of the studies presented in table 3-2 covered short periods, such as two or three years, and these short periods do not offer the required time for AC members to understand their monitoring and regular tasks. Therefore, the obtained results may not reflect AC monitoring roles accurately. To avoid such a problem, this study covered six fiscal years, to offer the freedom and time for AC members to recognise their monitoring roles.

Similar to the criticisms presented in the board of directors section, most of the previous studies covered one specific sector without covering any other sectors. This has weakened the validity of the obtained results and the generalisability of the findings. Therefore, the current research has covered all non-financial firms listed in the ASE.

Finally, some studies, such as Hamdan *et al.* (2013), used the dummy variable technique to evaluate AC independence using a sample of fifty listed firms in the ASE, compared to the majority of the mentioned studies, which applied the ratio approach to estimate the independency ratio. Hence, the current research adopted the ratio technique to avoid any problems with the dummy variable technique, since all the required data was available.

Table 3-2 Summary of the Previous Studies Regarding AC Characteristics and EM

Reference	Research Issue	Sample Size	EM Proxy	Country	Findings
Albersmann and Hohenfels (2017)	To evaluate AC effectiveness in constraining EM issue in Germany.	Sample of listed firms	Accruals	Germany	A negative correlation between AC existence, meetings and EM.
Juhmani (2017)	To study AC characteristics and its effects on EM levels.	31 listed firms	Modified Jones Model (1995)	Bahrain	Failed to document any effect of independent members and AC meetings on constraining
Mishra and Malhotra (2016)	To explore AC monitoring roles in enhancing earnings quality in India.	130 listed firms	Modified Jones Model (1995)	India	A negative correlation between the frequency of AC meetings and EM levels.
Kankanamge (2016)	To shed light on the effects of AC characteristics	150 listed firm	Kothari et al, (2005)	Si Lanka	Found a general supportive role of AC in enhancing financial reports quality in Sir Lanka.
Iqbal *et al.* (2015)	Investigating the effects of audit committee characteristics on discretionary accruals levels.	89 non-financial firm	Modified Jones Model (1995)	India	Fully independent audit committee is more powerful in detecting financial infractions.
Elijah and Ayemere (2015)	To examine the effects of AC characteristics in constraining EM phenomenon.	50 firms	Modified Jones Model (1995)	Nigeria	Documented a general effective monitoring roles AC meeting in specific, in constraining EM issues.
Al-Rassas and Kamardin (2015)	To explore the effects of internal and external auditing characteristics in enhancing earnings quality in Malaysia.	508 listed firms	Modified Jones Model (1995)	Malaysia	They found a significant positive correlation between AC regular meetings and EM.

Chen and Zhang (2014)	To evaluate audit committee effectiveness in constraining discretionary accruals actions.	447 listed firms	Modified Jones Model (1995)	China	Provided evidence that the presence of an AC curbed EM. they document a negative correlation between EM and the proportion of independent members serving on AC.
Omoye and Eriki (2014)	To examine the monitoring role of audit committee in constraining mangers opportunistic behaviour.	130 listed firms	Modified Jones Model (1995)	Nigeria	Negative correlation between creative accounting and the presence of AC.
Sharma and Kuang (2014)	Study the influence of independent ACs on discretionary accruals.	194 firm year observations	Kothari *et al*, 2005	New Zealand	Fully independent AC reduces the overall likelihood of adopting discretionary actions.
Habbash *et al.* (2013)	Investigated the effects of audit committees on earnings manipulation.	350 large firms	Kothari *et al*, 2005	U.K	Positive correlation between the quality of financial reports and the proportion of independent members served in AC. Furthermore, Insignificant relationship between AC diligence and discretionary accruals practices.
Hamdan *et al.* (2013)	Evaluate the monitoring roles of the AC in constraining discretionary accruals actions.	50 listed firms	modified Jones model (1995)	Jordan	The study did not document any significant monitoring role of independent members in improving financial reports quality.
Fodio *et al.* (2013)	Examined the relationships between CG mechanisms and earnings quality.	25 insurance firms	Modified Jones Model (1995)	Nigeria	A positive correlation between audit committee independence and discretionary accrual levels.

Piot and Janin (2007)	Studied the role of AC features in constraining earnings managements.	120 firms	Jones Model (1991)	France	Negative correlation between E.M's practices and the presence of a separate AC. Negative correlation between E.M and independent AC.
Osma and Noguer (2007)	Investigated the effects AC presence in discretionary accruals	155 non-financial firms	Jones Model (1991)	Spain	They found that the presence of an AC does not serve CG goals in constraining EM s
Lin *et al.* (2006)	To explore AC role in enhancing earnings quality (AC independence).	106	Dummy Variable	U.S	Failed to find any significant effect of independent members on constraining accruals actions.
Rahman and Mohamed Ali (2006)	Investigating the effectiveness of AC characteristics on constraining discretionary accruals.	97 listed firms	Modified Jones Model (1995)	Malaysia	Insignificant correlation between AC independence and discretionary accruals.
Peasnell *et al* (2005)	Examine the relationship between EM and AC existence.	620 firm	Jones Model (1991)	U.K	Introducing a separate AC had a weak monitoring effect on constraining EM.
Piot (2004)	Investigate the determinants of audit committee effectiveness.	285 listed firms	---	France	AC plays a pronounced monitoring role minimising conflict of interest between shareholders and managers.

3.6 Ownership Structure and Earnings Management

An ownership map is a controversial issue in terms of its monitoring roles. Various types of ownership have prohibited managers from acting opportunistically. For example, Wang (2006) claims that ownership structure can play a significant role in determining reported earnings. Based on the previous argument, a sound ownership structure, combined with other regulations (e.g. CG), will prevent managers from practicing their own discretion in financial reporting (Chen and Zhang, 2014; Al-Rassas and Kamardin, 2015). In other words, the presence of active owners such as institutional investors, blockholder, and managerial ownership, is expected to reduce the chance of opportunistic behaviour and, thus, lead to solving or reducing conflict of interests within companies (Mallin, 2011; Wang, 2014).

In addition, a diverse and active map of ownership may play a supportive role in adopting CG mechanisms accurately and, thus, constraining manipulation issues such as EM. This means that an optimum level of ownership affects the adoption of CG positively which, in turn, leads to a solid seat of regulations to protect shareholders' rights (Wei, 2007; Alghamdi, 2012).

However, previous investigations revealed different monitoring tools that were expected to enhance the quality and integrity of financial statements. Adoption of the appropriate CG mechanisms in conjunction with active ownership, will lead to a reduction in conflicts of interest, regardless of the type of conflict (Alghamdi, 2012; Kamran and Shah, 2014). While most of the previous initiatives aimed to shed light on corporate ownership roles in solving agency problems between agents and principals, combination corporation ownership plays a central role in determining the effectiveness of owners to compel managers to achieve the principals' goals (Alghamdi, 2012).

For instance, diverse ownership of a firm's outstanding shares was found to motivate the firm's stockholders to hold a superior monitoring role and, thus, minimise agency issue (Pagano and Roell, 1998). Hence, to achieve the research goal of exploring the effectiveness of CG mechanisms in constraining EM, this research included ownership structure as a main monitoring pillar that enhances the quality, transparency and integrity of financial statements. This study thus, investigated the effects of the following types of ownership: institutional owners, blockholder owners, managerial owners and family firms. This study excluded “*state ownership*,” since the Jordanian governments has privatised its shares in its investee firms.

3.6.1 Institutional Ownership and Earnings Management

Fama and Jensen (1983) attribute the presence of agency problems to the separation between ownership and control. Different tools have been used to solve this issue. Previous literature presents institutional investors as well-informed owners who have effective experience in companies’ financial and monitoring matters(Alghamdi, 2012). Skilful institutional investors will enhance a firm’s controlling system and restrict managers’ discretion over firms’ reports (Mehrani *et al.*, 2017).

Previous investigations showed two schools of thoughts regarding institutional investor monitoring roles. The first presents institutional investors as an active monitoring body within a firm’s structure. Under this hypothesis, institutional investors play a significant role in prohibiting managers from adopting EM practices (Bushee, 1998; Wang, 2014). However, under the passive hand hypothesis, institutional investors are seen as impeding the constraint of EM (Porter, 1992).

Relying on the previous classification, a research by Mehrani *et al.* (2017) was conducted to explore institutional owners’ capability to prevent Iranian managers from practicing EM activities. Using their representative on a firm’s board as a standard to divide the study’s sample, the researchers, therefore, had two sub-groups of owners (active and passive). Interestingly, their results presented active institutional owners as a deterrent control tool to enhance earnings quality within their sample.

In the same context, Rad *et al.* (2016) adopted an “active monitoring hand” hypothesis to investigate the impact of ownership map and audit quality on enhancing the Iranian financial statements’ quality by reducing the incidence of EM actions. Testing their assumption with 100 companies listed between 2009 and 2013, the findings were consistent with their hypothesis. Indeed, they documented a conclusive monitoring role of such owners in constraining EM activities.

Consequentially, the Jordanian market was the target for Alzoubi (2016) to examine the monitoring behaviour of the various types of ownerships to constrain EM decisions. To fulfil their research goal, they tested the Modified Jones (1995) model and collected data from 62 manufacturing firms the listed on ASE, and he observed noticeable monitoring effects of such investors in constraining EM.

Additionally, the industrial sector was selected by Ramadan (2016) to answer his research question regarding whether, or not, the EM phenomenon was affected by the Jordanian ownership map. Focusing on the industrial firms listed between 2000 and 2014, the researcher found that, the level of managers' opportunistic behaviours was affected significantly by various types of owners, specifically, institutional investors. Indeed, he found that EM levels were negatively associated with institutional investors' presence.

The African context contributes to ownership literature through an investigation by Amos *et al.* (2016), who concentrated on the Beverages and Tobacco sectors regarding the effectiveness of institutional investors in constraining EM. After testing the main statistical hypotheses, they found that institutional investors were efficient in reducing managers' abuses that have direct effects on accruals figures.

An investigation conducted by Aygun *et al*. (2014) indicated a negative correlation between discretionary accrual behaviours and institutional investors from a sample of listed companies on the Istanbul Stock Exchange form 2009 and 2012.

In Jordan, a study by Al-Amarneh (2014) investigated the effects of CG mechanisms and ownership structure on ' performances. Using a sample of 30 banks listed between 2000 and 2012. The results recorded a positive effect of the presence of institutional investors on banks' performances.

Classifying institutional investors into three main categories, based on their ownership stake, Wang (2014) examined the monitoring roles of different institutional investors with a sample of UK listed firms between 1997 and 2010. Wang's findings pointed to factors such as investment and duration strategy that had affected institutional monitoring behaviour. Furthermore, institutional investors with 10–20 percent of company outstanding shares demonstrated active monitoring actions in overseeing managers' opportunistic behaviour.

In line with the "Passive Hand Hypothesis", Ratnawati and Abdul-Hamid (2015)'s evidence presented institutional investors as inexperienced members, since such owners were ineffective in constraining EM behaviours in their sample of 108 Indonesian firms.

Additionally, a study by Roodposhti and Chashmi (2010) investigated CG and ownership structure roles in constraining EM across a sample of 196 Iranian firms between 2004 and 2008. Their study reported a positive relationship between institutional investors and EM practices—a result inverse to the agency theory.

A Spanish study by Sánchez-Ballesta and García-Meca (2007) investigated whether ownership structure (institutional investors) affects discretionary accruals and earnings figures. Choosing a sample of non-financial firms listed on the Madrid Market Exchange (MME) between 1999 and 2001, they found a positive relationship between discretionary accruals manipulation and institutional investors who held a small stake of the firm's shares.

Based on the previous investigations, it can be argued that institutional investors showed inconsistency in their monitoring behaviours. Type of owners, investment duration and ownership percentage were the main factors that affected institutional monitoring behaviours (Habbash, 2010; Mehrani *et al.*, 2017).

3.6.2 Managerial Ownership and Earnings Management

An agency problem occurs in response to the separation between firm ownership and firm control (Chi *et al.*, 2014). This separation creates a gap between managers' and shareholders' interests that motivates managers to take advantage of shareholders in order to achieve their own goals (Man and Wong, 2013). To avoid such a conflict situation, agency theory suggests providing a specific stake of shares to directors in order to align agent-principal goals(Peasnell *et al.*, 2005). Doing so would encourage managers to enhance their firm's performance and the integrity of its financial reports by constraining manipulation issues, such as EM (Jensen and Meckling, 1976; Ali *et al.*, 2010). In this vein, the convergence-of-interests hypothesis presents an empirical solution for motivating managers to fill this interest gap between firms' agents and principals (Morck *et al.*, 1988; Agburuga and Ibanichuka, 2016).

Although there is a theoretical solution to the issue of conflict of interest, empirical investigations revealed contradictory findings.

For example, a recent investigation by Ratnawati and Abdul-Hamid (2015) tried to find valid answers to whether, or not, ownership rights (managerial ownership) can constrain

EM within the Indonesian market. Covering 108 listed firms between 2007 and 2011, the researcher found that managerial shares had adjusted the opportunistic behaviour of the Indonesian managers by reducing EM levels.

Motivated by agency theory to investigate the effects of an independent board of directors and ownership styles on earnings quality, Alves (2014) selected a sample of 34 Portuguese non-financial firms. The findings concluded that a negative relationship existed between discretionary accruals and managers' ownership.

Liu (2012) focused on a sample of 138 Australian companies in investigating the effects of ownership and boards of directors on EM patterns. The researcher concluded that managerial ownership plays a crucial monitoring role in constraining income-increasing accruals techniques, specifically in long-term managerial ownership.

A Malaysian investigation by Ali *et al.* (2010) studied the monitoring role of ownership structure in constraining the magnitude of discretionary accruals using a sample of 1,001-listed firms. They claimed that managerial ownership played a pronounced monitoring role within small firms, but not in large firms.

In contrast, the directors with internal ownership of firms' shares were more opportunistic to deviate from their contractual goals, to achieve personal benefits by taking advantage of their positions to affect company decisions. This conclusion was extracted based on 372 companies listed between 2003 until 2010 (Kamran and Shah, 2014).

Using total accruals, specifically, discretionary accruals, was not a sufficient approach to present a noticeable monitoring role of director's ownership within the Indonesian market from a sample of listed firms from 2004 until 2008 (Nugroho and Eko, 2012).

Likewise, the Japanese data collected from 1991 to 2000, presented managerial ownership as an obstruction that hindered concentrated ownership from being an effective mechanism to offer accurate annual reports by reducing the incidence of EM (Teshima and Shuto, 2008).

Interestingly, in some cases, managers were willing to plot with their management team to conceal the firm's real earnings and, thus, present their companies in a disturbing financial light (Liu, 2012).

From the above mentioned studies, the researcher noticed a disagreement between researchers regarding the effectiveness of managerial shares in changing directors' behaviour to represent their agents efficiently. The main causes of this conflict may be attached to factors which include social factors, family firms, and pressure from majority owners to adopt their wishes, and ownership percentage or duration.

3.6.3 Family Ownership and Earnings Management

Previous investigations have studied the effects of ownership structure on the prevalence of EM. Despite this wealth of studies, the literature shows a discrepancy in the predicted correlations. It is worth mentioning that the agency problem in this type of ownership is horizontal(Mallin, 2011). "Principals-principals" or "majority-minority" conflict is the most common type of agency problem within the context of family firms (Jensen and Meckling, 1976).

In this vein, majority shareholders have flexible and easy access to a firm's internal information. In such a situation, they are motivated to limit financial information flow to other interested groups and, thus, they expect to manipulate earnings in order to achieve their goals (Fan and Wong, 2002). In other words, majority shareholders will take advantage of minority owners by expropriating their benefits.

On the other hand, agency theory claims that concentrated shares owned by a specific group in general is expected to play an essential monitoring role in restricting manipulation issues such as EM in order to protect the minority shareholders' benefits (Alghamdi, 2012; Achleitner *et al.,* 2014; Chen *et al.*, 2015).

Using two different sub samples to explore the effect of family and non-family firms on EM levels in Portugal, Vieira (2016) found no differences between the selected firms regarding their motivation to adopt EM techniques. Indeed, he found family companies were more motivated to practice such a phenomenon in order to guarantee successful firms for their future family members.

In Japan, Chen *et al.* (2015) found that Japanese family firms showed aggressive accounting behaviour and were more likely to engage in regular earnings manipulation than were non-family firms. Their results indicated that Japanese firms were more inclined to adopt accruals techniques than to use real earnings management activities.

This study used all firms listed on the Tokyo Stock Exchange (TSE) between 2004 and 2011 and estimated accruals practices by using the Modified Jones Model (1995).

Based on a group of 379 Taiwanese technology firms, Chi *et al.* (2014) investigated the effects of family firms on discretionary accruals levels by investigating pre-selected CG variables and ownership structure. Estimating discretionary accruals by adopting the Modified Jones Model (1995), the researchers concluded that such firms were more willing to adopt discretionary accruals techniques to report desirable earnings.

Targeting the non-financial sector of the Milan Stock Exchange (MSE), Prencipe and Bar-Yosef (2011) studied a sample consisting of 122 listed firms to shed light on the extent of EM prevalence in the context of family firms. Their results implied that family firms weakened the monitoring roles of independent members to the point of allowing the spread of discretionary accruals practices.

On the other hand, based on a comparative study between family firms and non-family firms, Martin *et al.* (2016) claimed that, for a reputational goal, family firms were not inclined and motivated to destroy their reputations by adopting EM decisions comparison to non-family firms within the U.S. context.

A study from Germany by Achleitner *et al.* (2014) investigated the impact of family firms on the occurrence of accrual decisions in comparison to non-family firms. Targeting 402 firms between 1998 and 2008, the researchers found a higher level of accounting information quality in family firms.

Family firm's literature has shown different points of view regarding the efficiency of family firms in constraining EM techniques. Indeed, such a monitoring role is affected by family members' incentives and motivation regarding this phenomenon. Family firm's founders with long-term investment plans were more efficient in restricting EM (Alghamdi, 2012). However, opportunistic directors exploited current gaps in accounting standards to conceal the current firm's earnings in order to protect their dominant stakes.

3.6.4 Block-holder Ownership and Earnings Management

Previous literature defines blockholder ownership as a type of ownership that offers individuals the opportunity to own a dominant stake of a firm's outstanding shares (Habbash, 2010; Alves, 2014) . However, emerging markets focus mainly on other types of ownership, such as family ownership or governmental ownership compared to with other organized markets that present such owners as a main player on the ownership map (Alghamdi, 2012; Edmans and Holderness, 2016). This significant number of shares introduces blockholder owners as a practical monitoring mechanism that is expected to constrain EM behaviour and, ultimately, lead to enhancing the quality of financial statements (Persons, 2006; Edmans and Holderness, 2016).

In other words, blockholder derive their powers from their shares' authority (voting rights), which afford them a noticeable monitoring position to observe the board of directors' actions directly over firms' accruals (Dou et al., 2016).

Similar to the previously conflicting results concerning the monitoring roles of ownership structure, current studies posit two point of views regarding the ability of blockholder to constrain EM. The first viewpoint builds on agency theory as a solid base to explain blockholders monitoring roles. Agency theory claims that large stake of shares owned by individuals is expected to introduce such owners as an important controlling tool to constrain EM issues (Halioui and Jerbi, 2012; Habbash *et al.*, 2013). On the other hand, the presence of blockholder may motivate managers to negotiate firm's earnings with blockholders to expropriating minority benefits by motivating boards of directors to adopt accounting choices that achieve their goals (Shleifer and Vishny, 1997; Halioui and Jerbi, 2012).

For example, a recent study by Dou *et al.* (2016) found that blockholder with at least 5% of firms' outstanding shares behaved as knowledgeable owners and had an adequate level of monitoring experience to protect their shares from being affected by EM actions.

According to Alzoubi (2016), in Jordan, the individual blockholder were committed to their monitoring functions in order to protect their investments from being manipulated by opportunistic managers.

Alves (2014) provided evidence that the crucial monitoring percentage of blockholder is a minimum of two percentage of a firm's shares, relying on a group of listed companies between 2002 and 2007 and employing the discretionary accruals approach estimated by the Jones (1991) model.

Derived from a sample of the 350 largest UK firms listed between 2005 and 2007, Habbash *et al.* (2013) investigated the effectiveness of AC and blockholder ownership in constraining EM activities. His results discovered a significant monitoring role by blockholder in which they had moderated the role of the audit committee role.

Other studies attained contradictory results by, for instance, classifying blockholder into two main groups (small and large blockholder). Relying on data from 31 firms listed on the Tunisian Stock Exchange (TSE), as well as the investigation of the influence of blockholder on discretionary accruals estimated by the Kothari *et al.* model (2005), Halioui and Jerbi (2012) concluded that a positive correlation exists between discretionary accruals and the presence of blockholder as owners.

Furthermore, Guthrie and Sokolowsky (2010) revealed that the presence of large blockholder did not prevent firms from inflating earnings numbers around SEO, based on 1,479 large public US firms listed between 1996 and 2002.

From the previous literature, it appears that the inconsistency in results could be connected to different variables, such as ownership percentage, the presence of qualified and experienced individuals as blockholder, and investment plan duration. Therefore, generalising these conclusions to a specific context may not be an appropriate way to estimate blockholders' monitoring behaviour. Hence, further investigations are recommended, especially within the emerging context, in order to enrich the current literature.

3.6.5 Summary of Ownership Structure Literature

In a nutshell, table 3-3 provides evidence that the developed markets (U.S., U.K. and Europe) have been the main targets for researchers investigating the effects of ownership structure on EM, since these markets are more organized and have the required disclosures in terms of ownership percentages for each group of owners, compared to the emerging markets, which lack this feature.

Emerging markets have different settings and conditions, which give these markets a certain uniqueness when carrying out further investigations to enhance the quality of the ownership literature. This can provide further evidence of the agency problem and to what extent this issue is restricted by concentrated ownership.

This table documents the different adopted measures and percentages of the various ownership types to examine their correlation with EM. Some studies used, for instance, 2% or 3% to estimate institutional, managerial or blockholder ownership, and these mixed evaluation percentages may restrict the generalisability of this section. Therefore, the current research determined a minimum percentage of ownership with a value of 5 % for each group, and for the family type, the research followed most of the previous studies by employing the dummy variable approach.

Some of the mentioned studies focused on a specific sector to achieve their research goals, without taking into consideration the importance of other sectors or the effects of such mechanisms based on all sectors in a specific conditions. Therefore, this study will overcame this shortage by covering all non-financial sectors available in the ASE.

Indeed, the majority of the listed studies in table 3-3 have investigated the effect of ownership structure on accruals levels by focusing on one or two types of ownership without combining this section with other monitoring mechanisms, such as the CG code. Therefore, this may have affected their decisions regarding the effectiveness of concentrated ownership in enhancing the transparency of financial reports. Due to this weakness in the previous research, this study aimed to evaluate the effectiveness of the CG mechanism and ownership structure in constraining accruals manipulations in Jordan. The main goal was to identify the most deterrent mechanisms that had a direct monitoring effect in enhancing a firm's financial reports.

Table 3-3 Summary of the Previous Studies Regarding Ownership Structure and EM

Reference	Research Issue	Sample Size	EM Proxy	Country	Findings
Mehrani et al. (2017)	Explore institutional owner's capability in hindering Iranian mangers from practicing EM.	All firms listed in TSE from 1999-2006.	magnitude of discretionary accruals,	Iran	Their result presents active institutional owners as a deterrent control tool to enhance earnings quality over their sample.
Rad et al. (2016)	To investigate the impact of ownership map and audit quality in enhancing the Iranian financial statements quality.	100 companies	Modified Jones Model (1995)	Iran	They document a conclusive monitoring role of such owners in constraining EM activities.
Alzoubi (2016)	To examine the monitoring behaviours of the various types of ownerships in constraining EM decisions.	62 manufacturing firms	Modified Jones Model (1995)	Jordan	They observed a noticeable monitoring behaviours of institutional and blockholder investors in constraining EM.
Ramadan (2016)	To answer his research question whether EM phenomenon is affected by the ownership map or not.	62 industrial firms	Modified Jones Model (1995)	Jordan	The level of manager's opportunistic behaviours is affected significantly by institutional investors.
Amos et al. (2016)	Aimed to provide answers regarding the effectiveness of institutional investors in constraining EM.	Beverages and Tobacco sectors	Modified Jones Model (1995)	Nigeria	Institutional investors were efficient in reducing manager's abuses that have direct effects on accruals figures.
Vieira (2016)	Using two different sub samples to explore the effect of family and non-family firms on EM levels	629 observations.	Jones Model (1991)	Portugal	He found family forms more likely to practice such a phenomenon.

Martin et al. (2016)	Used a comparative study between family firms and non-family firms to deterring their EM behaviours.	500 firms	Jones (1991) model	U.S.	family firms were not inclined to destroy their reputations by adopting EM decisions
Dou et al. (2016)	To examine blockholder monitoring role sin constraining EM.	1500 S&P firms	Jones (1991) model and other model	U.S.	Blockholder with at least (5%) of firm's outstanding shares were behaving as knowledgeable owners.
Ratnawati and Abdul-Hamid (2015)	To shed light on institutional owners roles in constraining EM.	108	Jones (1991) model	Indonesia	Presented institutional investors as unexperienced members since EM. In comparison with managerial owners.
Chen *et al.* (2015)	To explore the extent of using accrual techniques within the Japanese family context.	1,680 listed firms	Modified Jones Model (1995)	Japan	Found that Japanese family firms showed aggressive accounting behaviours.
Kamran and Shah (2014)	To explore the monitoring effects of managerial ownership in constraining EM.	372 companies	Jones Model (1991)	Pakistan	Directors with internal ownership of firm's shares were more opportunistic to deviate from their contractual goals.
Wang (2014)	Examined the monitoring roles of different institutional investors.	8,728 firm-year observation	Working Capital Accruals.	U.K	Combined with other factors such as investment percentage, institutional investors played a crucial role in constraining accruals.
Chen and Zhang (2014)	To investigate the impact of CG code and ownership structure in constraining discretionary accruals.	447 firms per year	Jones Model (1991)	China	Significant negative correlation between discretionary accruals and institutional investors with 10%of shares

Aygun *et al*. (2014)	To explore the impact of corporate ownership in constraining discretionary accruals.	230 listed firm	Modified Jones Model (1995)	Turkey	indicates a negative correlation between discretionary accrual behaviours and institutional investors
Al-Amarneh (2014)	Investigated the effects of CG mechanisms and ownership structure on bank performance.	30 banks	ROA & Operating Efficiency	Jordan	Positive effect of the presence of institutional investors and bank performance
Alves (2014)	Studied the correlation between firm's ownership and discretionary accruals levels.	34 listed firm	the Modified Jones Model (1995)	Portuguese	Negative relationship exists between EM and managers' ownership and blockholder with at least two percent of firms' shares.
Chi *et al.* (2014)	Investigated the effects of family firms on discretionary accruals.	379 listed firms	Modified Jones Model (1995)	Taiwan	Family firms are more inclined to practice discretionary accruals techniques to report desirable earnings.
Achleitner *et al.* (2014)	To determine the effects of family firms presence on earnings management adoption.	402 listed firms	Working Capital Accruals	Germany	Higher level of accounting information quality in family firms.
Habbash *et al.* (2013)	Investigated the effectiveness of AC and blockholder ownership in constraining accruals.	471 UK listed firms	Kothari et al, 2005	U.K	Significant monitoring role of blockholder in which their role has moderated audit committee role.
Liu (2012)	Investigated the effects of ownership and boards of directors on discretionary accruals patterns.	138 listed firms	Jones Model (1991)	Australia	Managerial ownership plays a crucial monitoring role in constraining income-increasing accruals techniques.

Nugroho and Eko (2012)	To review the impact of managerial ownership in constraining discretionary accruals actions.	Sample of listed firms between 2004-2008	Modified Jones Model (1995)	Indonesia	Failed to find any significant role between managerial ownership and constraining EM.
Halioui and Jerbi (2012)	To study the impact of blockholder on earnings management levels.	31 listed firms	Kothari et al, 2005	Tunis	Positive relationship exists between EM and the presence of blockholder as owners.
Prencipe and Bar-Yosef (2011)	To evaluate the effectiveness of board independence in constraining EM within the context of family firms.	122 listed firms	Working Capital Accruals	Italy	Family firms have weakened the monitoring roles of independent members to the point of allowing the spread of EM
Roodposhti and Chashmi (2010)	Investigated CG and ownership structure roles in constraining EM.	196 listed firms	Modified Jones Model (1995)	Iran	Positive relationship between institutional investors and discretionary accruals practices.
Ali *et al.* (2010)	Explored the roles of ownership structure in constraining EM.	1,001-listed firm	Working Capital	Malaysia	Managerial ownership plays a pronounced monitoring role within small firms.
Guthrie and Sokolowsky (2010)	To provide an empirical evidence that explained the monitoring role of blockholder.	1,479 large public	Jones Model (1991)	US	The presence of large blockholder does not prevent firms from inflating earnings figures.
Teshima and Shuto (2008)	Examine the relationship between managerial ownership and managers' opportunistic behaviour.	18,163 firm-year observation	the Modified Jones Model (1995)	Japan	Positive relationship between managerial ownership and earnings manipulation.
Sánchez-Ballesta and García-Meca (2007)	Investigated whether institutional investors affects discretionary accruals and earnings figures.	203 firm-year observation	Jones Model (1991)	Spain	Positive relationship between discretionary accruals manipulations and institutional investors.

3.7 Conclusion and Previous Studies Gap

Although the literature investigating CG roles in constraining EM behaviour is extensive, this summary of the literature shows inconsistency in the predicated findings, even in the same institutional settings. Motivated by the research goal of investigating the effectiveness of internal CG mechanisms in constraining EM practices, this chapter highlights the most important studies that examine the relationship between CG mechanisms, ownership structure and EM.

This study focuses on CG mechanisms—specifically boards of directors, ACs and ownership roles—and their effect on enhancing the quality of financial reports through constraining EM practices. The main justification for such a selection relates to the importance of boards of directors and ACs and the crucial role they play in overseeing firms efficiently. For instance, overseeing managers' behaviour, ensuring the credibility of firms' reports and enhancing the firms' disclosures are the main tasks of these monitoring bodies (Klein, 2002; Khalil and Ozkan, 2016).

According to Chen and Zhang (2014) and Lee and Lee (2014), most of the previous studies have concentrated on developed economies, with a few studies in emerging markets such as the Middle East. Their main assertion was that agency theory forms a basis that motivates researchers to conduct investigations. However, the current research adopted mainly agency theory to construct the basic hypotheses with a complementary presence of institutional theory, resource dependency theory and the stewardship theory to investigate the role of CG in constraining EM practices. In other words, the UK, US and other European markets appear to be more organised in terms of laws and regulations that protect shareholders' rights. In contrast, emerging markets lack adequate deterrent laws through which minority shareholders' rights can be protected. Theoretically, this research contributes significant evidence to the current literature regarding whether CG adoption was in response to conflicts of interest or in response to government pressure to cope with international markets.

Previous studies have placed the characteristics of boards of directors and ACs under the umbrella of well-developed markets, but the effects of variables such as external directorships of board members and AC existence are still ambiguous in terms of emerging markets. Hence, this study provides further examples regarding this issue, by investigating the effects of new variables on EM levels.

The previous summary of related studies shows a shortage in long-term studies that cover more than three years. Such a long period is very necessary in the CG field, since this phenomenon needs time and effort to be understood by different internal or external groups. For instance, the majority of the previous investigations covered two or three years (in the best situation), and they were conducted directly after activating CG in their contexts, which constrained CG effectiveness since the market needed to adjust its current institutional settings and firms' structures to cope with the CG requirements. Thus, this research fill this gap by carrying out a study over six financial years, from 2009 to 2014.

The abovementioned studies have concentrated on different sectors to achieve their research goals but, in general, the majority of these studies have focused on one sector, such as the service, industrial or technology sector, and this may affect the validity of the obtained results, or may impair the generalisability of the findings among the other sectors. Hence, this study focused on all non-financial listed firms in the ASE's service and industrial sectors.

Previous research efforts have also examined ownership structure separately from CG mechanisms. Alternatively, they have aimed to examine the effects of one or two types of ownership on the prevalence of EM. Thus, this study, in line with an important argument that imposing "a good presence of CG adoption combined with optimum ownership structure" will constrain EM issues estimated by discretionary accruals, focuses on four main types of ownership in combination with the most significant internal CG tools, in order to study monitoring effects on earnings management. Furthermore, this study determined a minimum percentage of these type of ownerships with an average of (5%) for each group, in order to solve the inconsistency in estimating ownership structure mentioned in the previous literature.

The most commonly used and most preferable methodology in the previous investigations has been the regression techniques. The main shortage of such a methodology points to signs of correlations between CG mechanisms and EM estimated by discretionary accruals. In order to avoid such an obstacle, the current research adopted a mixed-methodology approach in order to understand CG issues and EM thoroughly and, perhaps, to provide applicable solutions to minimise agency problems.

In conclusion, the researcher engaged in this study to remove some of the ambiguity regarding the roles of internal CG mechanisms and ownership structure roles in enhancing the quality of financial reports. This was done by investigating the effects of CG mechanisms in a new sample of listed firms in Jordan, and a new methodology, since previous investigations had revealed contradictory results. In addition, the researcher aimed to evaluate agency theory effectiveness in emerging markets.

Chapter 4: Theoretical Framework and Hypotheses Development:

4.1 Introduction

The previous chapter provides evidence from diverse contexts about the correlation between monitoring tools (e.g. corporate governance and ownership structure) and earnings management phenomenon (EM). In general, the literature review introduces contradictory viewpoints for considering whether internal CG mechanisms achieved the intended goals or not. These disagreements within the literature motivated the researcher to carry out this research in the scope of an emerging market, specifically Jordan. This study has adopted a mixed-methodology approach to answer the research questions. Since, a single-methodology approach to investigate CG effectiveness in a context characterized by weak protection rights and non-compliance with discloser requirements may not yield valid and effective answers to such a research problem.

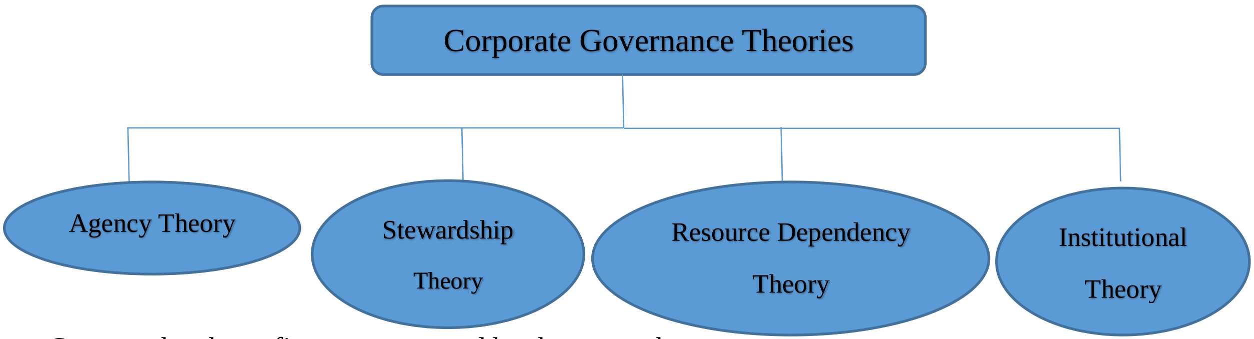
Because this is a deductive study, the following section discusses in detail the selected main theories that are used to develop the research hypotheses and to answer the research questions. Section 4.2 explains the theoretical framework, CG theories. Section 4.3 explains how the researcher developed the research hypothesis, and finally, section 4.4 provides a brief summary of this chapter.

4.2 Theoretical Framework

Theory is known '*as any coherent description or explanation of observed or experienced phenomena*' (Gioia and Pitre, 1990:578). This makes it imperative for researcher to have prior knowledge about the subject of the research to link a theory with the problem. In a deductive study, a researcher is expected to build a solid theoretical background from previous literature; thus, the adopted theory helps him to expect associations between the selected variables, and it helps him to adjust these relationships based on the selected context settings (Saunders *et al.,* 2011). Furthermore, adopting an appropriate theory supports researcher discussions and explanations for the obtained results and for the suggested hypotheses (Gill and Johnson, 2010). The previous brief definition of theory is in alignment with Collis and Hussey (2003), who define theory as '*a set of explanatory concepts'*(Collis and Hussey, 2013:56).

In line with Mallin (2011) suggestion, this thesis depends mainly on the following theories based on CG and EM literature: the agency theory and the institutional theory as main theories and RDT and Stewardship theory as complementary and supportive theories to explain the research findings. The figure, below, explains the main theories used in this thesis to explain the relationships between earnings management and corporate governance and ownership structure.

Figure 4-1 Corporate Governance Theories



Source: the above figure constructed by the researcher.

4.2.1 Agency Theory and Corporate Governance

The roots of agency theory are connected directly to the separation of a firm's management and principals (Fama and Jensen, 1983). In such a situation, principals are motivated to delegate their monitoring tasks and responsibilities to another group called agents to act on their behalf to maximise the principals' wealth (Wahab, 2010; Mallin, 2011). This delegation of activities may motivate managers to adopt specific actions to obtain personal benefits at the expense of the firm's principals (Jensen and Meckling, 1976). Previous initiatives, for instance, defined *Agency theory* as '*identifies the agency relationship where one party, the principals, delegates work to another party, the agents. In the context of a corporation, the owners are the principal and the directors are the agents*'(Mallin, 2011:12). However, agency theory is governed by specific associations between the different parties: '*a contract under which one or more persons (the Principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent'* (Jensen and Meckling, 1976:308). In other words, as long as this separation takes place between firm's management and principals, a disagreement regarding principals' and the agents' benefits will be appeared (Jensen and Meckling, 1976).

Interestingly, this conflicted business relationship may be struggled by other factors such as the '*Information Asymmetry problem'*(Habbash, 2010). This situation gives the agents flexible approach and contact to a firm's operational situation in comparison with other groups (principals); hence, the principals lack the opportunity to oversee and control the manager's activities or decisions appropriately (Wahab, 2010). Alternatively, the position of superior knowledge for the agents may support their opportunistic behaviours by motivating them to deviate from their contractual goals (principal's wealth maximization) to obtain more personal benefits (Mallin, 2011; Thomsen and Conyon, 2012).

The agency problem represents one of three main types of conflict of interests. These are the vertical conflict of interests, the horizontal conflict of interests and the third type, which arises between a firm's agents and stakeholders (Jerzemowska, 2006). Naturally, the presence of the first two types depends on the ownership structure within the corporation. The vertical type exists mainly between agents and principals within non-family firms, where the presence of a dominating group (family members) is not pronounced in a significant stake of shares. The second type, '*horizontal conflict of interests*,' presents concentrated ownership (family firms), as the majority of shareholders (agents) take the responsibility of controlling and monitoring the firm's operational transactions as an indirect delegation from the minority of shareholders (principals). The third type arises when shareholders make decisions that benefit themselves but that also affect the benefits of other interested groups (Brander and Poitevin, 1992). Interestingly, this conflict of interest takes place between principals and stakeholders such as employees, suppliers, bondholders and local governments (Thomsen and Conyon, 2012).

However, and based on the previous explanation of the Agency problem, a firm's principals should devote an adequate level of their efforts and attentions to constraining the effects of such a conflict, which may impair the firm's long-term survival, in order to protect the firm's resources by adjusting the agents' specific transactions to act on behalf of them to maximise their wealth (Wahab, 2010; Mallin, 2011). Hence, the principals will pay some costs to reduce this conflict, and these costs are known as agency costs (Fama and Jensen, 1983).

In this vein, agency costs are the incurred monitoring amounts paid by a firm's shareholders to reduce the effects of agency problems in their firms. Some of these expenses are auditing fees, performance bonuses, and stock options or adopting new regulations such as CG codes (Fama and Jensen, 1983; Mallin, 2011).

Jiraporn et al. (2008), in their article titled *'Is earnings management opportunistic or beneficial? An agency theory perspective'*, provided a new perspective on EM to clarify the classical opportunistic image of EM. They provided new evidence that presents EM's behaviours as beneficial activities that maximise shareholders' wealth. The adoption of these beneficial EM techniques can pass a specific amount of information to the principals or other stakeholders to enhance the quality and the value of the profits figures (Watts and Zimmerman, 1978; Holthausen, 1990; Healy and Palepu, 1993). Additionally, Jiraporn et al. (2008) suggest a negative correlation between agency costs and specific transactions occurrences (earnings management), since managers will not take the risky position of adopting such transactions opportunistically; they just want to pass or deliver a specific stake of valid information to specific groups.

In contrast, managers may take advantage of their monitoring positions on the expenses of owners' interests, in which the overall financial position of the firm is threatened (Rangan, 1998; Kothari et al., 2012). In this case, Jiraporn et al. (2008) claimed that firms with noticeable agency costs are expected to witness the presence of this type of opportunistic behaviours.

Agency theory is presented as the main theory that explains the motivations behind managers (agents) engaging in altering a firm's earnings (Khalil and Ozkan, 2016). Additionally, it summarizes the overall agency correlations among the various interested parties in the firms. Therefore, a set of expected costs (e.g. corporate governance) will be paid by a firm's principals to reduce the negative consequences that result from the separation between ownership and control (Wahab, 2010; Mallin, 2011).

4.2.2 Institutional Theory and Corporate Governance

It is worth defining the term institution before explaining institutional theory in detail. Scott (2004) viewed institution as comprising '*regulation, normative, and culture-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life*'(Scott, 2004:56). Based on this definition, an institution also includes social and tangible factors (resources). This means that a corporation is more than a producer of goods or services; it is also a significant social and cultural player. Based on this brief definition, corporations are not only willing to produce and promote goods and service only, but they are ultimately willing to legitimise their existences and operations (Suchman, 1995). Institutional theory aims to expound behaviours and actions adopted by firms to cope with the surrounding environment requirements to gain their acceptance as social actors (Di et al., 1983).

Meyer and Rowan (1977) and Di et al. (1983) proposed isomorphism as the main bridging tool to align with the institutional environment's requirements by incorporating the suggested regulations and laws within the firm's structure to obtain legitimacy and acceptance. In such a situation, the operational and legal environment becomes more homogeneous in terms of a firm's structure (Scott, 1995). However, DiMaggio and Powell (2000) classified isomorphism into three sub-levels: Coercive isomorphism, Mimetic isomorphism and Normative isomorphism.

With '*Coercive isomorphism*', firms are under formal and informal pressure from various organizations, regulators or stakeholders to adopt new laws or to meet regulators' expectations(Di *et al.*, 1983). These pressures come from governments, regulators or contract law to implement specific requirements. In this case, firms are compelled to move from the traditional structure to adopt a new style as a response to these pressures (Meyer and Rowan, 1977; Di et al., 1983).

'Mimetic isomorphism' proposes a contradictory proposition in which firms can opt to change their structures. Di et al. (1983) claimed that firms are motivated to adopt or imitate other corporations' structures to improve their structure and performance. In this case, the change of the old structure is voluntary in order to gain a preferable operational position among other firms. Some firms consider this technique a guaranteed way to improve their operational activities and to legitimatise their existence (Di et al., 1983; Scott, 1995).

The third type is called '*Normative isomorphism'*. Under this stand, firms are directed by the pressures that come from professionals to implement a specific set of institutional behaviours or requirements (Di *et al.*, 1983; Alghamdi, 2012).

CG codes ask organizations to modify their structures solely to align with CG requirements. This transformation in a firm's structure may be a response to regulators' regulations to abide to these codes or as a voluntary response to enhance a firm's position. Therefore, the new changes in a firm's structure come as a form of re-establishing the board of directors or by enhancing the overall monitoring process by creating different committees (Alghamdi, 2012).

In general, and before enacting any new laws or regulations, regulators should understand and evaluate the contexts' conditions that may affect the acceptance of these new legislations (Ball *et al.*, 2000). In particular, CG codes are considered new legislations that may ask firms to adopt new requirements to enhance the overall monitoring process. Therefore, to achieve CG goals, contexts should be prepared to accept these new regulations by constraining any conflicts with other laws or regulations (Yazdifar, 2003).

Institutional theory may push firms to accept different mechanisms or recommendations to implement these requirements in a legal way just to legitimise their existences and to send a clear signal to society and other stakeholders that they have aligned their goals and policies with the requirements of CG codes (DiMaggio and Powell, 2000). This can support a firm's acceptance in the environment without any real impact on the overall monitoring or controlling process (Saudagaran and Diga, 1997; Alghamdi, 2012).

Previous literature introduced both agency theory and institutional theory as contradictory theories that should be considered to build an effective accepted theoretical base for CG studies, since both theories are capable of interpreting the results obtained from different perspectives and based on different settings (Stedham and Beekun, 2000; Mallin, 2011; Yusoff and Alhaji, 2012).

In summary, regulators enact different laws and codes to organize the business environment effectively. However, adherence to these legislations does not support the continuity of firms if the adoptions were responses to regulator and stakeholder pressures(Meyer and Rowan, 1977). It should be a response to a real deficiency, solve existing problems or imitate other successful corporations in order to enhance the overall performance. In this case, institutional theory seems an appropriate theory to interpret results (Meyer and Rowan, 1977; Di et al., 1983).

4.2.3 Stewardship Theory and Corporate Governance

Taking an opposite position to the agency theory, this theory assumes that directors' behaviours align with the principals' best interests. Mallin (2011) summarizes this theory as '*the stewards of company's assets and will be predisposed to act in the best interests of the shareholders*'(Mallin, 2011:12). Hence, the proponents of this position see no need to legislate new regulations such as CG codes to motivate the agents to act on behalf of the firm's principals. In this vein, *steward* is defined as a person who is willing and personally motivated to behave in the best of other persons or groups to achieve their goals. Thus, his monitoring behaviours are consistent with the objectives of the firm's shareholders (Donaldson and Davis, 1991).

In this theory, managers are seen as loyal and faithful employees to the firms who are encouraged to achieve the firm's goals. This effective position is derived from the belief that managers receive intrinsic satisfaction from performing their tasks and responsibilities successfully, without the need to charge the firms any monitoring costs such as agency costs (Donaldson and Davis, 1991).

Previous literature provides various evidence to support the stewardship theory framework. In 1991, a study taken by Donaldson and Davis (1991) aimed to explore the effects of duality managers who hold CEO and chair positions simultaneously on the return on equity levels. Their results support this theory by documenting an improvement in ROE levels in comparison with non-duality managers. In general, this conclusion contradicts agency theory proposition, which claims that holding the CEO position with the chair position motivates duality managers to adopt specific transactions (EM) to obtain personal benefits, which leads to weak ROE levels.

Furthermore, Weir et al. (2002) supported stewardship theory by claiming that duality directors are found to be more experienced, skilful and knowledgeable in terms of firms' day-to-day activities, which leads to the improvement of firms' financial positions.

This theory contradicts agency theory, which assumes that managers will opportunistically take advantage of their positions to maximize their personal wealth at the expense of the firms' shareholders' interests. Stewardship theory introduces firm directors as trusted and loyal employees who act to achieve the principals' wealth maximisation goals (Donaldson and Davis, 1991; Davis *et al.*, 1997).

In conclusion, this theory takes a contradictory position to agency theory in terms of the feasibility of separating between CEO and chair positions within a firm. However, agency theory added a significant knowledge to both CG and accruals literature, since it was founded in 1976 and was the extensively used theory in previous literature.

4.2.4 Resource Dependency Theory (RDT) and Corporate Governance

The main concern of the RDT is to explain how corporations are connected to the surrounding environment and whether this interconnection can affect corporations' monitoring behaviours or not. Salancik and Pfeffer (1978) stated that '*to understand the behaviour of an organization, you must understand the context of that behaviour – that is, the ecology of organization*' (Salancik and Pfeffer, 1978:1). According to this perspective, directors are expected to link their firms with the local environment to secure the required resources and power to guarantee their firms' survival. Such a direct interdependence with the environment will open the door to achieving this mission by exchanging the monitoring experience, the required resources and the appropriate knowledge between corporations (Williamson and Mueller, 1986).

Therefore, a board of directors is seen as a bridge which supports the overall monitoring process in a firm by having a direct connection with other firms and the environment. Given the effect of this theory on this research, external seats (directorships) occupied by directors is a good example of RDT. In this case, busy directors can take advantage of their external linkage to obtain further resources, information, monitoring experience, skills or the keys of the main regulators and suppliers, with which they can guarantee the survival of their firms (Daily et al., 2003; Hillman and Dalziel, 2003).

4.3 Hypotheses Development Phase

This part focuses on explaining how the hypotheses have been mainly developed to be tested through adopting the appropriate statistical tests. In '*Research Methods for Business Students'*, hypothesis is defined as '*A testable proposition about the relationship between two or more events or concepts*' (Saunders *et al.*, 2011:599). Indeed, since this study is a deductive one, it aims to investigate the correlations among several independent variables (internal CG mechanisms and ownership structures) on the level of EM in

Jordan. The researcher relied on the literature presented in Chapter Three and the illustrated framework presented in section 4.2 to formulate the following hypotheses.

This section is divided into three subsections to describe clearly the sequence of steps in the development of the hypotheses. Section 4.3.1 explains the development of the board of director's hypotheses. Section 4.3.2 offers a brief summary of the development of the AC hypotheses. Section 4.3.3 describes the development of the ownership structure hypotheses.

4.3.1 Board of Directors Characteristics and Earnings Management

Chapter Three, specifically section (3.3.1), provides a detailed description of previous literature regarding the effects of boards of directors' characteristics on constraining EM, and this section provides contradictory findings regarding this issue.

The previous literature shows debate in terms of CG monitoring tasks and roles in improving the quality of financial reports. The effective monitoring role of a board could be explained based on agency theory, which introduces the board of directors as a powerful body within a firm's structure that works to achieve the goals of owners and other stakeholders (Fama and Jensen, 1983). Agency theory introduces boards of directors as monitoring cornerstones that improve the creditability and transparency of financial statements by constraining EM practices. Establishing a good board of directors based on CG recommendations will lessen the likelihood of managers adopting EM techniques to prepare attractive financial reports.

The passive monitoring role of a board of directors is connected directly to the institutional theory framework, which claims that adopting CG recommendations is seen as a reaction to pressure from government (regulators) to enhance a firm's performance or effectiveness or as a form of imitation (Meyer and Rowan, 1977). Alternatively, it could be explained as the regulators being focused on the formality in legislating CG codes rather than focusing on the practical issues and the institutionalized settings for each context (Ianniello, 2015; Khalil and Ozkan, 2016).

For example, agency theory suggested that, introducing independent parties to serve on a firm's board may motivate directors to oversee firm's activities efficiently to prepare accurate financial reports by constraining EM behaviours (Fama and Jensen, 1983). In light of this monitoring role, researchers such as Klein (2002); Chi *et al.* (2014); Habbash *et al.* (2014); Talbi *et al.* (2015) and Abbadi *et al.* (2016) have asserted on the importance of independent members in constraining EM decisions in which financial reports may be altered. In contrast, some researchers attributed the positive relationships between accruals levels and independent members to the institutional theory. Good examples of these studies are Abed *et al.* (2012); Ianniello (2015); Kapoor and Goel (2016); Khalil and Ozkan (2016); Monsif Azzoz and Khamees (2016); Wan Mohammad *et al.* (2016) who failed to find noticeable monitoring effects of such members in reducing accruals behaviours.

In fact, prior to 2009, Jordanian firms were not required to appoint non-executive independent members to corporate boards (Shanikat and Abbadi, 2011). By 2009, however, the Jordanian CG code recommendations clearly stated that '*The administration of the Company is entrusted to a board of directors whose members shall be not less than five and not more than thirteen, and at least one third of the board members are independent members*' (SDC, 2009). Hence, and in line with agency theory, this study adopts the following hypothesis:

> *H_1**:** There is a significant negative association between EM and the proportion of independent members in board structure.*

Another mechanism used to evaluate board effectiveness is the cross-directorships occupied by boards' members. Previous studies used the Resource Dependency Theory to support their research positions, which encourages board members to serve on various boards concurrently. Such an interlock creates the required channels for busy directors to be interdependent with the firm's surrounding environment, which can help to guarantee its survival by accumulating the required experience to have the upper monitoring hand in their firms (Salancik and Pfeffer, 1978; Jiraporn et al., 2009). Some studies, such as Hunton and Rose (2008); Lee and Lee (2014); Fernandez *et al.* (2016) support this suggestion by documenting a negative correlation between accruals manipulations and busy directors. In other words, they claim that it was difficult and unacceptable for such members to accept and pass EM decisions in order to protect their reputation capital that had been accumulated during their time as transparent directors.

Another point of view refutes the previous argument by claiming that external seats holders may be over-stretched as a result of their monitoring tasks for each firm, thereby lacking the required time and effort to carry out their monitoring tasks efficiently (Baccouche and Omri, 2014). Indeed, external directorship has reduced board-monitoring roles since it has been positively correlated with EM (Sarkar *et al.*, 2008; Baccouche and Omri, 2014; Jamaludin *et al.*, 2015; Kapoor and Goel, 2016).

Thus, external directorships literature lacks sufficient evidence regarding the effects of multiple directorships on board members' monitoring roles. This ambiguity may affect other CG mechanisms and lead to inverse effects. Recently, some regulators initiatives have focused on organizing this issue by determining the accepted average of external directorships. So far, the guidelines of previous CG codes stipulate that directors must offer sufficient time and effort to oversee firms' affairs. However, the Jordanian code clearly states that ' . . . *In all cases, a natural person must not combine membership of the boards of more than five companies whether in his personal capacity or as a representative of a legal person*' (SDC, 2009).

Based on the previous discussion, this study adopts the busyness hypothesis. Therefore, this study adopts the following hypothesis

> *H_2: There is a significant positive association between EM and the average of external seats occupied by board members.*

In a different position, CG codes prohibit the same person from holding a chair position and CEO position simultaneously. This prohibition distributes management authority between different parties to enhance the firm's decisions and to constrain managers from practicing hegemony over board activities. Mallin (2011) claimed that the absence of such separation presents a CEO as a powerful person who has excessive power to handle board activities and decisions. Similar to the previous contradictory findings, there are two schools of thought regarding the effectiveness of this separation.

The first school relied on the agency theory proposition that in a duality situation, overall board independence becomes a questionable issue since the duality manager will have massive controlling power over board activities, in which agency problems are expected to increase. Therefore, agency theory supports such a separation to enhance board transparency and monitoring positions. Previous studies support this separation by documenting a negative correlation between non-duality managers and EM (Iqbal *et al.*, 2015; Latif and Abdullah, 2015; Ming-Feng and Shiow-Ying, 2015; Muttakin *et al.*, 2017).

Another camp of researchers disagrees with the agency theory proposition. In contrast, they adopt the stewardship theory point of view, which simplifies the current situation of conflicts of interest between agents and principals, claiming that no harm results from serving in the same two positions concurrently (Donaldson and Davis, 1991). In this regard, firms should treat agents as stewards – not employees – since they are considered loyal actors on behalf of shareholders (Pastoriza and Ariño, 2008). In line with this stand, some studies, such as those conducted by Chen (2004), Abdul Rahman (2006), Hashim and Devi (2010) and Peasnell et al. (2000) found that non-duality managers do not have a significant effect on accruals levels.

Interestingly, CG code in Jordan prohibits a CEO from holding any other executive position. In terms of the Jordanian environment, 60.1% of the listed firms are run by family members who established them to have them listed as public firms on the ASE. Several crucial factors may affect this separation inversely, such as blood and/or friend relationships. Hence, CG code dictates, '*it is not allowed for one person to hold the positions of chairman of the board of directors and any executive position in the company at the same time*' (SDC, 2009). This study supports the agency theory argument, which posits a positive correlation between discretionary accruals levels and duality managers. Therefore, this study adopts the following hypothesis:

> *H_3: There is a significant negative association between non-duality managers and EM.*

In terms of the effect of board size on EM levels, previous related investigations has documented mixed results in which the effect of board size is still undetermined. The proponents support their argument with the agency theory claim that large boards have more members that are independent, and thus, a superior monitoring role is expected from such a board. In agreement with this position, Klein (2002); Aygun *et al.* (2014); Kumari and Pattanayak (2014); Jamaludin *et al.* (2015); Muttakin *et al.* (2017) showed that firms with large boards were better able to restrict EM actions than smaller boards. However, smaller boards were shown to be more efficient and powerful in constraining EM, since such boards are connected with lower levels of discretionary accruals manipulations

(Abdul Rahman, 2006; Iqbal *et al.*, 2015; Jamaludin *et al.*, 2015; Ramachandran *et al.*, 2015; Talbi *et al.*, 2015).

The Jordanian CG code does not explicitly mention the optimum size of firms boards listed on the ASE. The Jordanian regulators left this decision to the firms' internal systems. However, CG code explains the accepted range of board size in this way: '*The administration of the Company is entrusted to a board of directors whose members shall be not less than five and not more than thirteen* . . . ' (SDC, 2009).

In line with the majority of studies that support large boards, this study assumes that large boards play a more significant monitoring role than do small boards. Therefore, this study adopts the following hypothesis:

H_4: There is a significant negative association between board size and EM.

Another significant mechanism estimated board activism levels is board meetings. Likewise, different monitoring positions are documented by previous studies. The first group of studies found active board to be efficient indices for estimating a board's industriousness and its transparency in overseeing a firm's operations. More active boards showed flexibility in devoting more time and effort to taking their monitoring responsibilities seriously (Habbash, 2010). For instance, González and García-Meca (2014); Habbash *et al.* (2014); Zgarni *et al.* (2014); Halaoua *et al.* (2017) found that active boards which meet regularly are correlated with lower levels of discretionary accruals, based on different contexts.

On the contrary, some studies failed to find a monitoring feasibility of board meetings mechanism in reducing EM, and this could be related to the fact that these meetings are routine in nature without any crucial effects on board decisions (Ebrahim, 2007; Hyo Jin and Soon Suk, 2008).

In summary, previous investigations have not definitively concluded whether active board's exhibit enhanced monitoring responsibilities. Thus, previous results cannot be generalised in different contexts. Based on the previous literature, the impact of the role of board meetings is still ambiguous. More investigations are required to resolve the ambiguity regarding board meetings.

The Jordanian CG code does not impose a specific number of board meetings for listed firms. In general, the Jordanian firms should hold regular meetings to discuss the firm's affairs effectively and '*at least six times annually*' to endorse their financial reports (SDC, 2009). This study supports the assertion that active boards are more capable and efficient in constraining EM practices. Therefore, this study adopts the following hypothesis:

> *H_5: There is a significant negative association between the number of board meetings and EM.*

4.3.2 Audit Committee Characteristics and Earnings Management

Focusing on creating a sound and qualified board of directors is not enough to ensure an accurate report free of EM activities. This important element should work in tandem with other mechanisms, such as an AC (Chen and Zhang, 2014). Agency theory emphasises the importance of forming a highly qualified AC composed of competent members who are critically aware of their monitoring responsibilities in order to ensure the integrity and transparency of firm's statements (Klein, 2002; Davidson *et al.*, 2005; Chen and Zhang, 2014). Additionally, the existence of an AC helps to protect firms from being subjected to enforcement actions by the regulatory parties and from requirements to add revisions steps to its reports (McMullen and Raghunandan, 1996). For instance, Klein (2002); Chen and Zhang (2014); Omoye and Eriki (2014); Albersmann and Hohenfels (2017) concluded that discretionary accruals correlates negatively with the presence of an AC in the firm's structure when compared with firms that lack a separate AC.

In rare cases, some scholars failed to document the expected monitoring role of such a committee in their studies. Instead, they found a positive correlation between discretionary accruals and the presence of a separate AC in the firm's structure (Peasnell *et al.*, 2005; Osma and Noguer, 2007; Al-Rassas and Kamardin, 2015).

CG code in Jordan encourages listed firms to establish a separate committee since their creation is voluntary (excluding financial institutions). However, CG code reports that the main goals of an AC are to enhance the quality of financial reports and reduce financial information asymmetry issues (SDC, 2009). Interestingly, before activating CG code in 2009, accounting and finance departments were the main actors on behalf of audit committees. In fact, these staff may have suffered managerial pressure to negotiate the financial numbers in order to affect the quality of financial reports (Shanikat and Abbadi, 2011). This study adopts agency theory proposition in which the existence of AC constrains EM practices. Therefore, this study adopts the following hypothesis:

H_6: There is a significant negative association between AC existence and EM.

Consequentially, and after establishing separate ACs, firms should focus on the main characteristics that support the committees' monitoring roles in the firms. A good example of one of the distinctive features is independence. Similar to their monitoring roles within the structures of boards of directors, agency theory proposes, there are significant monitoring effects of introducing independent members to a committee's structure. Previous empirical research has shown the benefits of establishing ACs with independent members. For instance, Hamdan *et al.* (2013); Chen and Zhang (2014); Faried (2014); Kankanamge (2016) have documented a negative and significant correlation between discretionary accruals manipulations and the number of independent members serving on ACs. Furthermore, Iqbal et al. (2015) found that a fully independent AC is more powerful in detecting financial infractions caused by opportunistic managers.

However, some studies reveal a different conclusion regarding the feasibility of introducing independent members to serve on ACs. For example, Fodio *et al.* (2013); Al-Rassas and Kamardin (2015); Juhmani (2017) failed to find any significant effect of such members in constraining accruals behaviours based on different contexts. They attributed their results to the institutional theory framework, which suggests that introducing independent members to serve on ACs was a response to regulator pressures to adopt this requirement, not as a solution to agency problems.

The previous brief summary shows contradictory results regarding the effectiveness of AC independence in constraining discretionary accruals. In general, most of the previous investigations asserted the importance of introducing independent members to enhance the overall auditing process. The variety of results could be attributed to different factors such as social and political settings, ownership diversity and the level of understanding the AC's role as a monitoring mechanism. Therefore, this study asserts the agency theory proposition, that introducing independent members to an AC creates a virtual monitoring role that restricts opportunistic behaviours. This is in line with the Jordanian CG Code that states the necessity of establishing an AC that should '*be composed of not less than* *three independent members of the board of directors*' (SDC, 2009). Hence, the following hypothesis arises:

> *H_7: There is a significant negative association between independent members within an AC and EM.*

Regarding the effects of AC meetings, prior studies adopted the following argument, in which active ACs were found to be more powerful and more capable of constraining manipulation of financial reports when compared with other ACs in terms of regular meetings (Elijah and Ayemere, 2015; Iqbal *et al.*, 2015; Alzoubi, 2016; Kankanamge, 2016; Mishra and Malhotra, 2016; Albersmann and Hohenfels, 2017).

However, some studies failed to draw a definitive monitoring conclusion regarding the ability of active AC in constraining accruals actions. For instance, Habbash (2013); Al-Rassas and Kamardin (2015); Juhmani (2017) indicated an insignificant relationship between AC diligence and discretionary accruals practices.

The previous conflicting results are insufficient to draw a clear picture of the role of active ACs on restricting the use of EM practices in different contexts. However, the Jordanian code confirm the importance of conducting regular meetings, since the committee is expected to play a significant monitoring role in enhancing reporting quality. According to Jordanian code, ACs '*shall meet regularly, not less than four times a year*' (SDC, 2009). Hence, the following hypothesis is raised:

> *H_8: There is a significant negative association between the frequency of AC meetings and EM.*

4.3.3 Ownership Structure and Earnings Management

Another controversial monitoring issue is the effect of ownership structure in constraining EM manipulations. The root of these conflicting results is connected to the separation between a firm's management and ownership. This separation creates a conflict of interests between a firm's agents and principals (Fama and Jensen, 1983). Therefore, the presence of a concentrated ownership combined with CG mechanisms is expected to play a significant monitoring role in motivating a board of directors to act on behalf of a firm's shareholders (Mallin, 2011; Alzoubi, 2016; Amos *et al.*, 2016).

There are four main types of ownership in Jordan: institutional, blockholder, managerial and family. However, family members control Jordanian listed firms (Abbadi *et al.*, 2016). This study excludes state-ownership because of privatisation decisions that reduced government shares in listed firms (ASE, 2016).

To begin, the active monitoring hypothesis claims that the presence of banks, insurance firms and pension fund owners in a firm's ownership map is considered one of the main deterrent tools that constrain managers' opportunistic behaviours (Bushee, 1998). In line with previous arguments, other previous studies such as Wang (2014); Alzoubi (2016); Amos *et al.* (2016); Rad *et al.* (2016); Ramadan (2016); Mehrani *et al.* (2017) support agency theory, which suggests that institutional owners with effective monitoring experience will enhance financial report quality by constraining accruals manipulations.

In contrast, and based on the passive hand hypothesis, some institutional investors are seen as free riders who are impeding the constraint of EM decisions (Porter, 1992). A few studies support this proposition by reporting a positive correlation between institutional investors and discretionary accruals manipulations (Sánchez-Ballesta and García-Meca, 2007; Roodposhti and Chashmi, 2010; Ratnawati and Abdul-Hamid, 2015).

This research adopts the active monitoring hypothesis, which assumes that institutional investors are considered a crucial monitoring tool in constraining earnings management practices. Thus, the following hypothesis is raised:

> *$H_{9:}$ There is a significant negative association between institutional investors and EM.*

However, contradictory results in previous literature explain the monitoring role of managerial ownership. The proponents of the agency theory proposition called for aligning the interests between firm's directors and shareholders by remunerating them by a specific stake of shares. In this way, they are motivated to enhance the firm's performance and to maximise the principals' wealth (Jensen and Meckling, 1976). Previous studies have supported the convergence-of-interests hypothesis by documenting significant monitoring roles of managerial ownership in constraining accruals manipulations in different contexts (Liu, 2012; Alves, 2014; Ratnawati and Abdul-Hamid, 2015).

On the other hand, some findings revealed a contradictory conclusion in which the presence of managerial ownership has affected the overall monitoring process inversely (Teshima and Shuto, 2008; Nugroho and Eko, 2012).

Based on the previous studies that claim a positive relationship between discretionary accruals and managerial ownership, the researcher expects the presence of conspiracy between managers and boards of directors, since 60.8 percent of the Jordanian market is oriented directly by family firms. The following hypothesis is raised:

> *$H_{10:}$ There is a significant positive association between director's ownership and EM.*

Among the related literature, family firms are one of the most widespread types of ownership that present a real example of the second type of conflict of interests (minority vs. majority) shareholders. In this case, majority shareholders have flexible and smooth access to a firm's internal information, because of which, they are motivated to take advantage of such a position to achieve their hidden goals instead of minority goals (Fan and Wong, 2002). Indeed, the majority of previous studies have documented a positive relationship between EM estimated by discretionary accruals and firms directed by family members (Prencipe and Bar-Yosef, 2011; Chi *et al.*, 2014; Chen *et al.*, 2015; Vieira, 2016). In contrast, some researchers claims that, family firms for reputational goals will not engage in such practices to alter firms' earnings (Achleitner *et al.*, 2014; Martin *et al.*, 2016).

To sum up, this type of ownership is commonly found in less-developed markets such as the Middle East and specifically Jordan (Shanikat and Abbadi, 2011; Abed et al., 2012). The researcher thus suggests that family firms in Jordan are motivated to engage in EM in order to deceive external investors and protect their monitoring shares. Hence, following hypothesis is raised:

> *$H_{11:}$ There is a significant positive association between family firm ownership and EM.*

With regard to the blockholders' monitoring roles, different scholars such as Habbash (2013); Alves (2014); Alzoubi (2016); Dou *et al.* (2016) have documented a significant negative association between blockholder owners and EM actions. This is in line with agency theory suggestion, which introduces individual owner with a significant stake of a firm's outstanding shares as a significant monitoring tool that may restrict managers' opportunistic behaviours.

Other studies reached contradictory results, and they concluded that blockholders' presence may motivate managers to collude with major blockholder and board members, thus expropriating minority benefits by motivating boards of directors to adopt accounting choices that achieve their goals. They support this argument by documenting a positive correlation between blockholder owners and discretionary accruals decisions (Guthrie and Sokolowsky, 2010; Halioui and Jerbi, 2012)

For many reasons, neither point of view could be accepted and generalised within the Jordanian context. The researcher aims to adopt the argument that presents concentrated ownership as a deterrent tool to constrain managers' opportunistic behaviours. Hence, the following hypothesis is raised:

> *$H_{12:}$ There is a significant negative association between blockholder ownership and EM.*

4.4 Conclusion

Chapter four provides detailed information regarding the adopted theoretical framework and hypotheses development processes used in this research. The intention of this chapter was to explain the main theories adopted in this research and to discuss how these theories affected the process of developing the suggested hypotheses to answer the research questions. This chapter starts with explaining some of the CG theories that have a direct effect on this research problem.

The first section sheds light on CG theories that have been mentioned in the literature review chapter, such as agency theory, institutional theory, resource dependency theory and stewardship theory. The researcher selected the previous theories based on his understanding to the scope of this research and based on Mallin (2011)'s recommendation that suggested these theories as main theories in CG studies. .

Previous scholars have used agency theory to build their frameworks to investigate the relationship between CG and EM, motivated by the effect of the separation between ownership and management, which is considered the main root of the agency problem (Klein, 2002; Chen and Zhang, 2014). Interestingly, this conflict of interests is not obvious within the Jordanian context for many reasons. The Jordanian research environment needs to devote more time and effort to investigating this issue extensively to overcome the obstacles resulting from cultural, economic, political and social factors which affect this conflict of interests.

Therefore, for emerging markets, institutional theory or stewardship theory appear to be an appropriate substitutional theory to explain the correlations between CG mechanisms and EM, since this phenomenon (corporate governance) is considered a new issue, and listed firms may accept CG mechanisms to respond to the regulator pressure to legitimize their existence and acceptance (Stedham and Beekun, 2000; Alghamdi, 2012; Owusu and Weir, 2016). It is worth mentioning that the researcher used agency theory as a starting point to build his research problem and hypotheses, since this theory is the main theory to start such an investigation in previous literature (Man and Wong, 2013; Chen and Zhang, 2014; Chen *et al.*, 2015); however, and in terms of explaining the extracted findings, the researcher has employed the above mentioned theories to draw a clear conclusion regarding the thesis findings'.

The third section in this chapter illustrates the process of developing the hypotheses used to answer the researcher questions mentioned in chapter one. Indeed, the researcher started this developing process by explaining the theoretical propositions for each mechanisms and after that, he summarized the main results that support each proposition. Finally, the researcher has formulated the main hypotheses based on the Jordanian context settings in which some hypotheses have contradicted the suggested relationship mentioned in the literature review chapter between accruals levels and the monitoring roles.

Chapter 5: Methodology

5.1 Introduction

The theoretical framework in chapter four covers the main theories used in this thesis to formulate the research questions and hypotheses. This chapter will explain the research methodology and shed light on the approaches used to collect the required data to answer the research questions. This study adopted a mixed-methodology approach to answer the research questions. The structure of this chapter is as follow: Section 5.2 discusses the research philosophies and research paradigms. Section 5.3 explains the research methodology, while section 5.4 comprises a short summary of the chapter

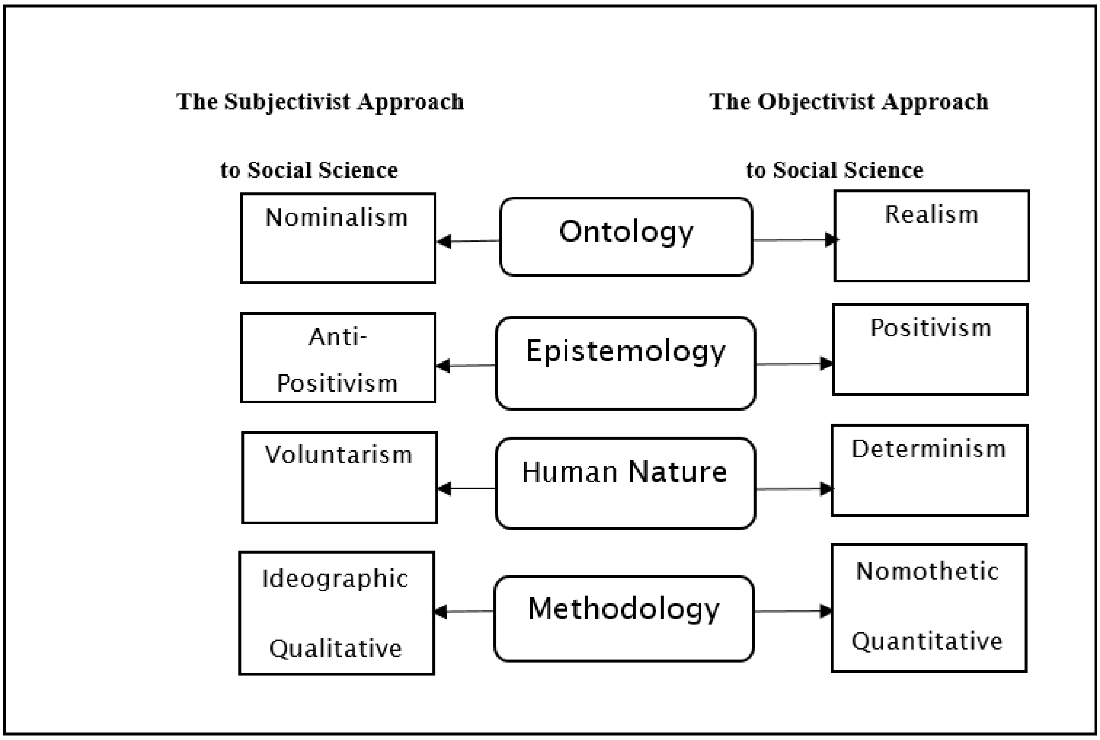
5.2 Research Philosophies and Paradigms

The research philosophy is a crucial factor that distinctly influences a researcher's understanding of his or her research problem. Selecting a relevant research philosophy helps the researcher to construct a solid theoretical background for his research and provides a good understanding of previous work done in the field (Saunders *et al.*, 2011). In other words, selecting a research philosophy helps the researcher to select an acceptable research path to achieve his or her research goals (Johnson, 2006). In this regard, the researcher's point of view affects his or her choices regarding the selection of research philosophy. Indeed, the most important factor is the relationship between knowledge and the way it is created or developed. For example, the research philosophy of a researcher interested in facts, or the relationship between variables based on numerical figures will take a different approach from researchers who are interested in exploring feelings or attitudes (Saunders *et al.*, 2011).

Generally, the angle from which researcher views his or her research problem determines which philosophy should be adopted. Burell and Morgan (1979) introduced the concept of a research philosophy in the social studies, providing a clarification of research philosophies and their relation to assumptions in social investigations. In the same vein, scholars, such Hopper and Powell (1985) and Saunders *et al.* (2011) have classified research into four main categories of assumption: ontology, epistemology, human nature and methodology.

According Burell and Morgan (1979); Saunders *et al.* (2011) and Tashakkori and Teddlie (1998), these categories can be explained from the subjective objective perspective. These researchers introduced the aspects of nominalism, anti-positivism, voluntarism and a qualitative approach (ideographic) to address the subjective approach. The aspects of objectivism, realism, positivism, determinism and quantitative approach (nomothetic) explain research philosophy from the objective point of view (See Figure 5.1).

Figure 5-1 The Subjectivism-Objectivism Dimensions



Source: (Burell and Morgan, 1979:3)

5.2.1 Subjective and Objective Dimensions

Ontology focuses directly on the essence of facts (reality) (Saunders *et al.*, 2011). The Subjective position shows social actors as main players who have a direct role in creating social cases (Bryman, 2004). Indeed, since social issues are directly affected by social players' observations and interpretations, the presence of such issues is not independent from the social players' propositions (Burell and Morgan, 1979; Saunders *et al.*, 2011). In contrast, objectivism claims that, social issues are created by the absence of social players' effects (Bryman, 2004). Objectivism is a position that describes how social cases exist in real-environments, but individually and independently from social factors (Burell and Morgan, 1979). In essence, an objective phenomenon focuses directly on reality (facts), separate from its social players, while subjective social events are based on social players' personal thoughts and attitudes (Bryman, 2004; Saunders *et al.*, 2011).

In terms of epistemology, the subjective-objective issue focuses mainly on what is considered justifiable knowledge to investigate a specific issue(Burell and Morgan, 1979; Saunders *et al.*, 2011). In other words, it determines what type of information is important to achieve the researcher's goals. In this vein, epistemology is divided into two stands: positivism and anti-positivism (interpretivism). A positivist researcher prefers "*working with an observable social reality [...] the end product of such research can be law-like generalizations similar to those produced by the physical and natural scientists*" (Remenyi and Williams, 1998:32). This epistemological position supports deductive study where researchers formulate and test a specific theoretical framework in a specific context (Bryman, 2004; Saunders *et al.*, 2011).

The other epistemological stand is anti-positivism or interpretivism. In this approach, the researcher considers the differences between social actors (humans) in order to gain a better understanding of the research problem (Saunders *et al.*, 2011). The researcher selects a particular measurement tool to investigate a specific research problem. This epistemological stance seems more appropriate for inductive studies where generalising the obtained findings is not one of the main goals of the researcher (Saunders *et al.*, 2011). Indeed, it is restricted to a specific sample under specific conditions.

The next classification in the subjective-objective dimensions is human nature. This concerns the correlations among research settings and the social actors (Saunders *et al.*, 2011). The researcher should consider the effects of the social player in order to build a deep comprehension of these effects and thus determine whether their presence is objective or subjective (Burell and Morgan, 1979; Saunders *et al.*, 2011). Two views of human nature—determinism and voluntarism—fall under this category in social research.

The fourth classification, methodology, shows two possible approaches to collecting the required data: ideographic and nomothetic (Burell and Morgan, 1979). In general, researchers who investigate relationships between different phenomena are more likely to adopt a quantitative approach to achieve their research goals (Hussey and Hussey, 1997; Saunders *et al.*, 2011). This approach offers a chance for researchers to conduct their investigations over a large population of observations. In contrast, the ideographic approach (qualitative) does not offer the chance to investigate a specific research issue in comparison with the previous approach (quantitative). Rather, the researcher focuses on respondents' comprehension and experiences to answer the research questions(Burell and Morgan, 1979). In this case, the researcher is more interested in exploring "*what is happening*" rather than examining correlations between variables (Lewis *et al.*, 2007; Saunders *et al.*, 2011).

Similar to the methodological theme adopted by Alghamdi (2012) and Almasarwah (2015), the problem presented in this thesis seemed to fall between subjectivism and objectivism, due to the approaches used to answer the main questions outlined in chapter one. This research aimed mainly to investigate the effectiveness of internal CG mechanisms and ownership structure in constraining EM practices in Jordan. The researcher decided to use different types of data sources to achieve the research aims. In terms of secondary data, the researcher used firms' disclosures to obtain the required data. However, two sources of primary data—semi-structured interviews and questionnaires—were used to explore social actors' perceptions regarding the ability of CG to constrain EM.

5.2.2 Research Paradigms in Social Science Studies

In general, adopting a specific research paradigm helps a researcher to construct his or her research accurately. This leads to realization of the research problem, based on the different social assumptions (Saunders *et al.*, 2011). In other words, adopting an appropriate research paradigm with clear research goals creates a valid framework with which the researcher can work, to provide logical answers for his or her research questions (Saunders *et al.*, 2011). According to Corbetta (2003) and Saunders *et al.* (2011), adopting a clear research paradigm helps the researcher to avoid obstacles, such as choosing an inappropriate instrument or theoretical framework to collect the required data or test a specific theory, since a clear pathway is already in place to help him or her conduct the investigation efficiently. Simply put, a research paradigm presents a set of logical steps that any research should follow and dictates how the research findings should be presented and justified (Bryman, 2004; Saunders *et al.*, 2011).

Based on the conceptual dimensions of radical change, regulations, subjectivism and interpretivism, Burell and Morgan (1979) classified research paradigms into four main categories: radical humanist, radical structuralist, interpretive and functionalist.

Figure 5-2 illustrates these paradigms in detail. The concepts of objectivism and subjectivism have been explained in Section 5.2.1.

Figure 5-2 Paradigms of Social Science

Radical Change

Subjective

Radical Humanist	Radical Structuralist
Interpretive	**Functionalist** **(this research)**

Objectivist

Regulations

Source: (Burell and Morgan, 1979:13)

Burell and Morgan (1979) placed the dimensions of radical change and regulations within business and management studies. Radical change offers an accepted framework that explains the appropriate steps that have to be adopted and followed to arrange a firm's business (Burell and Morgan, 1979). This approach aims to introduce several suggestions to alter the normal consequential arrangement of things (Alghamdi, 2012). In contrast, under a regulation paradigm, a researcher seeks to shed light on the existing framework in which the firm's institutional business are organized and legislated (Burell and Morgan, 1979). This dimension proposes significant solutions to enhance the present level of regulations in order to suit the current regulatory position (Burell and Morgan, 1979; Saunders *et al.*, 2011).

In Figure 5.2, above, the radical humanist position occupies the top left corner. A radical humanist researcher is mainly concerned with changing the current status by restricting the effects of ideological, social and psychological factors (Saunders *et al.*, 2011). In a contradictory position, under a radical structuralist, the researcher seeks to suggest or create significant modifications in the body of institutions (Burell and Morgan, 1979). A radical structuralist researcher is more objective, while a radical humanist researcher is more subjective (Saunders *et al.*, 2011).

The bottom left corner of Figure 5.2, above, presents the interpretive paradigm. Under this paradigm, the researcher is concerned with understanding "*the fundamental meanings attached to organisation life*"(Saunders *et al.*, 2011:121). In other words, the researcher will be able to recognize the flow of matters in any institution, based on the actions of its social actors but will not be able to change the consequences (Saunders *et al.*, 2011). The figure's bottom right corner shows the functionalist paradigm. In this paradigm, the researcher directs his or her efforts towards understanding why a specific problem takes place in a specific firm or context in order to provide solutions to solve the issue within the current settings (Saunders *et al.*, 2011). Burell and Morgan (1979:26) stated that the functionalist paradigm "*is often problem-oriented in approach, concerned to provide practical solutions to practical problems*."

Since this study aimed to investigate the effectiveness of internal CG mechanisms and ownership structure in constraining EM in Jordan, the researcher adopted the functionalist paradigm. This is because the researcher was more concerned with investigating the effects of implementing the CG code on EM practices within the current settings of the Jordanian market. In addition, after evaluating the effectiveness of the CG code in Jordan, the researcher aimed to provide logical recommendations and suggestions for ways in which the CG code may become a deterrent and more effective.

5.3 Mixed-Methodology Approach

Choosing an appropriate research methodology starts with the research problem itself because it reflects a researcher's ability to understand his or her research problem accurately (Tashakkori and Teddlie, 1998). By determining her or his viewpoint, the researcher will be able to select the most appropriate approaches that will lead to valid findings and interpretations (Saunders *et al.*, 2011). Motivated by the selected research paradigm (functionalism), the researcher aimed to go beyond examining the relationships between the variables to reach to a valid understanding of how the CG code was running in Jordan and how such a code may constrain earnings management issue. However, the current methodological path in accounting is to employ various approaches together to achieve research goals (Hussey and Hussey, 1997; Tashakkori and Teddlie, 1998; Brown and Brignall, 2007; Saunders *et al.*, 2011). After considering the previous arguments, and similar to the adopted methodologies by Alghamdi (2012) and Almasarwah (2015), and in order to achieve the research goals mentioned in chapter one, the researcher adopted a mixed-methodology design composed of both quantitative and qualitative approaches.

The first stage in this research was to collect a stand of secondary data between 2009 and 2014 to investigate the causality of the earnings' management issue, specifically discretionary accruals, and the monitoring tools used in Jordan. The second step was to distribute a self-administrated questionnaire to serve the main goals of the study, by focusing on the social players' perceptions, in order to get valid and real conclusions for this thesis. However, under the ideographic approach, the researcher selected 12 experienced participants to discuss the research problem with them in depth and to get further insights into which reliable and valid solutions could be suggested to enhance the effectiveness of the monitoring codes in Jordan.

Previous scholars have summarized the main advantages of employing such a methodology in one study (Jick, 1979; Philip, 1998; Tashakkori and Teddlie, 1998; Saunders *et al.*, 2011). For example:

1. Adopting various collection methods to answer research questions may help the researcher to reduce the opportunity of having erroneous results.
2. This approach affords a better and deeper perception of the research problem and offsets the weaknesses of employing a single research method.
3. A mixed methodology method helps the researcher to consider the effects of unmeasurable issues to support other sub-methodologies. It helps the researcher to understand the settings and conditions where the study will conducted.
4. Adopting a single method in some contexts may open the door to misleading and deceptive results and an inaccurate reflection of what happens in the "real world".
5. Mixed-methodologies increase the probability of generalizing research findings since such results seem to be more valid and accurate in comparison to other approaches.

The main features of the Jordanian context in recent years have been incompliance with disclosures' requirements and weak protection rights (Abed *et al.*, 2012; Idris, 2012). Therefore, adopting a single methodology (e.g. Secondary data analysis) might not have led to valid findings, or conclusions to evaluate CG monitoring functions (Denzin, 1973).

Therefore, the researcher adopted a mixed approach to overcome these issues and to be in line with his research functionalist position's goals.

Thus, the researcher selected this approach to achieve his research aims, based on the Jordanian political, economic and conditions. In addition, the researcher sought a deep and thorough understanding of the results, in order to make valid and clear recommendations to the Jordanian regulators to improve the current CG codes and to overcome the weakness in the current codes.

Table 5-1 Summary of Research Questions and Objectives

Research Questions	Objectives	Methods
What are the common techniques of earnings management in Jordan?	To identify the main techniques that have been used by Jordanian firms.	**Main:** Questionnaire
Do the internal CG mechanisms constrain earnings management practices in Jordan?	To identify the roles of CG mechanisms as tools to control earnings management.	**Main:** Secondary data analysis **Secondary:** Questionnaire Interview survey
Do the different types of ownership constrain earnings management levels in Jordan?	To investigate empirically the effects of ownership types in constraining earnings management.	**Main:** Secondary data analysis **Secondary:** Questionnaire

5.3.1 The Objective Method (Quantitative Phase)

This approach falls within the positivist framework, since this type of research is directly associated with solving research issues by examining the relationships between the selected variables without any direct interactions by the researcher to affect these numbers (Tashakkori and Teddlie, 1998; Lewis *et al.*, 2007; Saunders *et al.*, 2011). This means that the researcher seeks to explain the causality between variables. In this vein, the researcher should follow a series of solid, designed and organised steps to achieve the research aims (Creswell and Clark, 2007). Quantitative research is defined as "*studies in which the data concerned can be analyzed in terms of number*"(Hughes, 2006:2).

Therefore, popularisation of the obtained results is considered to be preferable to other types of data collection (Saunders *et al.*, 2011). This type of research technique is appropriate for deductive studies, in which the researcher is able to test and support a specific theory within his / her research context (Bryman, 2004; Saunders *et al.*, 2011). This is done by developing a specific hypothesis to decide whether the results are in line with counterparts results in different contexts (Hughes, 2006; Ghauri, 2010). The subsequent sections detail how the quantitative method was used to analyze this study's secondary data and questionnaire.

5.3.1.1 Secondary Data Phase

Using the quantitative research method, this research aimed mainly to use secondary data to achieve the research objectives. Using this type of data to achieve research aims offered a better chance for the researcher to become more aware of the researchable issues and in interpreting results when compared to other sources of data (Ghauri, 2010; Saunders *et al.*, 2011). Furthermore, it helps a researcher to test and evaluate whether a specific theoretical framework is appropriate for a specific conditions or not (Ghauri, 2010; Saunders *et al.*, 2011).

Previous scholars such as Boslaugh (2007) and Saunders *et al.* (2011) have summarized the main advantages of such an approach as:

1. The permanence of data. In this case the collected data is available for others to check the reliability of this stand of data in comparison with other methods such as interviews.
2. Unobtrusive data, since it is easy and manageable to access this data through available databases. Since previous efforts have been directed to collect these data for different reasons.
3. In general, the secondary data has been collected by experts or governmental institutions to achieve disclosure requirements. Therefore, it's considered in most cases to be a reliable and valid source of data which researcher can rely on to answer his research questions.
4. The probability of adjusting secondary data to suit the various types of studies such as longitudinal or cross-sectional studies in comparison to primary data.
5. It requires less time and a lower financial budget.
6. The probability of discovering new or unexpected results by re-analyzing a part of the collected data.

7. The availability of secondary data restricts the necessity to collect other types of data (e.g. survey).
8. The possibility of using this data over a large sample of observations in comparison with, for example, interviews, which limit the researcher's options because of a limited number of participants. Therefore, the generalisability of the extracted findings is considered to be more applicable compared to interviews or questionnaires.
9. It offers a chance to compare the results obtained in a specific context with other contexts, through which a valid conclusion can be drawn.

However, secondary data in general may be collected in a comprehensive way, without focusing on a specific variables or factors. Therefore, with regard to some research issues, this set of data may not be appropriate to answer research questions in a specific region or settings (Boslaugh, 2007; Saunders *et al.*, 2011). Interestingly, this was not the case in this research, since the published data served the main aims and goals identified in Chapter One.

Saunders *et al.* (2011) suggests two main sources of this type of data. Documentary secondary data includes notices, emails, meetings minutes, financial reports or public records. The second source is called survey-based secondary data. Under this sources, the researcher may use other data collected by previous questionnaires that have been already analyzed and the results published. This research collected the required secondary data through the annual reports of the Jordanian firms between 2009 and 2014.

5.3.1.2 Dependent Variable Estimation Model

Chapter three explained the previous studies that have investigated the relationships between the earnings management issue and the monitoring functions, based on different approaches. Some studies such as Zgarni *et al.* (2014); Chen *et al.* (2015) and Talbi *et al.* (2015) have employed real earnings management models to estimate the levels of manipulation. However, this approach has crucial negative effects on firms' future and current cash flow, that it may threaten the survival of firms in the long-run(Man and Wong, 2013). However, in rare cases, the survey (questionnaire) was the instrument used to achieve some research goals (Hunton and Rose, 2008; Razek, 2012; Uwuigbe *et al.*, 2014). Interestingly, there was general agreement in the previous literature discussed in chapter three, that the accruals approach was the most utilized approach to manipulate firms' earnings, since such a technique is less controlled by, and visible to, both regulators and auditors (Klein, 2002; Man and Wong, 2013; Monsif Azzoz and Khamees, 2016; Juhmani, 2017).

Among accruals studies, most investigations used total accruals models to estimate earnings management behaviors in comparison to specific accruals models, which showed weakness in capturing the opportunistic behavior in several cases (Ronen and Yaari, 2008). In line with the majority of the previous studies mentioned in chapter three, the researcher selected the total accruals approach to estimate the dependent variable in this study, specifically, discretionary accruals. Under this approach, total accruals comprise two categories: discretionary accruals and non-discretionary accruals. Opportunistic managers use the area of the discretionary accruals to practice their discretions through financial numbers, by taking advantage of the current loopholes in accounting policy choices and estimations areas to report a specific result (Man and Wong, 2013). In contrast, the non-discretionary accruals area has been left to be determined by economic, or firms' operational, conditions (Jones, 1991; Dechow *et al.*, 1995; Ronen and Yaari, 2008; Chen and Zhang, 2014; Chen *et al.*, 2015).

Another advantage of this approach is the ability to estimate discretionary accruals based on the sign of the manipulations (Habbash, 2010; Alghamdi, 2012). Indeed, discretionary accruals can be divided into income-increasing techniques or income-decreasing techniques, after which further analysis could be applied to get accurate and valid results to evaluate the monitoring behaviors of the monitoring tools relying on the discretionary accruals' sign. However, for the main test, the researcher used the absolute value of the discretionary accruals to answer his research questions (Klein, 2002; Chen and Zhang, 2014; Juhmani, 2017). The non-discretionary part in this study was estimated by adopting the Modified Jones (1995) model, taking advantage of the model's ability to be used within cross-sectional samples (Chen and Zhang, 2014). The novelty of this model concerning account receivable classification presented this as a superior model among the others. In the modified version, accounts receivable were classified as discretionary accruals, while the Jones Model (1991) treats accounts receivables as non-discretionary accruals (Dechow *et al.*, 1995; Ronen and Yaari, 2008).

Another justification for using the total accruals approach in this thesis is that adopting other approaches (e.g., real-earnings management) would affect firms' current and future cash-flow, which could threaten their survival in the long run (Man and Wong, 2013). However, and since most of the listed firms in Jordan are family firms (approximately 60%), adopting the total accruals approach to affect firms' earnings is considered a more appropriate means of guaranteeing the long-term survival of these firms.

However, it is worth mentioning that the development of accruals models has not been restricted or stopped at this point (the Modified Jones (1995) model). Previous studies, such as Habbash *et al.* (2013); Baccouche and Omri (2014); Sharma and Kuang (2014); Jamaludin *et al.* (2015) and Halaoua *et al.* (2017) have estimated discretionary accruals by applying the Kothari *et al*, (2005) model, in which return on assets (ROA) has been reclassified to be included in the model as non-discretionary accruals. However, this research evaluated the effectiveness of the monitoring tools in constraining accruals issues, and it was better to start this evaluation by adopting the basic versions of accruals models, such as the Modified Jones (1995) model, in order to get valid results. However, the researcher used Jones (1991) and Kothari, *et al.* (2005) model to provide further evidence to achieve the formulated goals mentioned earlier (See section (6.5.1 page 182) for more detail). The following equations explain the main steps used to calculate the discretionary accruals levels by employing the Modified Jones (1995) model:

1. **Calculating Total Accruals:**

In line with Hribar and Collins (2002) suggestion's, the researcher started the estimation process by calculating the total accruals by using cash-flow approach explained in the following equation (Alghamdi, 2012; Chen and Zhang, 2014; Juhmani, 2017).

Equation 5-1 Total Accruals Equation

$$\boxed{\mathbf{TAC_{t,i} = NI_{t,i} - CFO_{t,i}}}$$

Where:

- **NI** = firm's earnings before extraordinary items for firm i at year t.
- **CFO** = Cash flow from operational activities for firm i at year t.

2. **Calculating Non-discretionary Accruals:**

The second step was to calculate the non-discretionary accruals by employing the Modified Jones Model (1995). The following equation explains this:

Equation 5-2 Non-Discretionary Accruals Equation

$$\mathbf{NDA_{i,t}/TA_{i,t-1} = \beta_0 + \beta_1(1/TA_{i,t-1}) + \beta_2((\Delta\ Sales_{i,t} - \Delta Rec_{i,t})/TA_{i,t-1}) + \beta_3(\Delta\ GPPE_{i,t}/TA_{i,t-1})}$$

Where: $\mathbf{NDA_{i,t}}$ **=** Non-discretionary accruals for firm i at year t.

$\mathbf{TA_{i,t-1}}$ = Total assets for firm i at previous year.

Δ $\mathbf{Sales_{i,t}}$ **=** Change in sales for firm i at year t.

Δ $\mathbf{Rec_{i,t}}$ **=** Change in accounts receivable for firm i at year t.

$\Delta\mathbf{GPPE_{i,t}}$ **=** Change in gross property plant and equipment for firm i at year t.

3. **Calculating Discretionary Accruals:**

The difference between the total accruals estimated by the cash flow approach and the non-discretionary accruals estimated by the Modified Jones Model (1995) represents the level of discretionary accruals. The following equation explains this:

Equation 5-3 Discretionary Accruals Equation

$$\mathbf{DAC_{i,t} = TAC_{t,i} - NDA_{i,t}}$$

*over the previous equations, all variables will be scaled by prior year total assets ($TA_{i,t-1}$) to control heteroscedasticity.

5.3.1.3 Corporate Governance and Ownership Structure Variables

This section explains the measurement of the CG variables, including board of directors' characteristics, audit committee characteristics and ownership structure. The researcher selected these characteristics for the following reasons.

1. CG is a new phenomenon in Jordan. It is still within the "*comply or explain*" phase that leads listed firms to adopt the most common monitoring mechanisms.
2. After collecting more characteristics regarding AC mechanisms (i.e. audit committee size and financial and accounting expertise), the researcher found a high correlation between some of these mechanisms and other variables. Therefore, the researcher had to exclude these mechanisms from the final sample.
3. At this stage there was an agreement in the previous studies that the above-mentioned mechanisms were the most significant mechanisms in constraining EM (Chen and Zhang, 2014).
4. The weak and poor disclosures' levels restricted the researcher's ability to cover more variables regarding, for example, board of directors' characteristics.

5. The rationale behind choosing AC characteristics to achieve the research goals, was that, before activating CG in Jordan, most of the Jordanian firms did not formulate this committee, because accounting departments were the responsible party to carry out the tasks and responsibilities on behalf of AC.
6. Limited discloser regarding foreign ownership constrained the researcher ability to consider this type of ownership in this thesis. Therefore, this study covered four main types of ownerships in Jordan.

5.3.1.3.1 Board of Directors Characteristics Measurements

In line with Chen and Zhang (2014); Chi *et al.* (2014); Ianniello (2015); Talbi *et al.* (2015) and Wan Mohammad *et al.* (2016) the researcher defined "INDMBD" "as the ratio of independent members on a board divided by the board size". The second variable, "Non-Dual", was a dummy variable that took 1 if firms separated the CEO and chairperson positions. Otherwise, it took 0 (Iqbal *et al.*, 2015; Ming-Feng and Shiow-Ying, 2015; Khalil and Ozkan, 2016; Muttakin *et al.*, 2017).

The third variable presented the external directorships (EXTDIRC) held by board members. In line with Lee and Lee (2014); Jamaludin *et al.* (2015); Fernandez *et al.* (2016) and Kapoor and Goel (2016), this research estimated the average number of external directorships as an index of the total external directorships held by board members divided by board size. The fourth variable of board independence was board size (BSIZE). In line with most of the previous literature, this variable was estimated as the total number of board members (Jamaludin *et al.*, 2015; Ramachandran *et al.*, 2015; Essa *et al.*, 2016). Finally, boards' meetings (BRDMEET) were estimated as the total number of board meetings (González and García-Meca, 2014; Zgarni *et al.*, 2014; Halaoua *et al.*, 2017). Table 5-2, below, summarizes the previous measurements.

Table 5-2 Description of Board of Directors Characteristics

Symbol	Variable Name	Description and Measurement Basis	Expected Sign
INDMBD	Independent members on board	The ratio of independent members on board divided by the board size	(-)
Non-Dual	Non-duality	A dummy variable takes1 if firm separates CEO and chairmen positions; otherwise 0.	(-)
EXTDIRC	External directorships	Total external directorships held by board members divided by board size	(+)
BSIZE	Board size	The total number of board members	(-)
BRDMEET	Board meetings	The total number of board meetings	(-)

5.3.1.3.2 Audit Committee Characteristics Measurements

Additionally, the researcher selected three characteristics to capture the effect of ACs on constraining EM practices. The existence of an AC (EAC) was a dummy variable; it took 1 if the listed firm had a separate AC; Otherwise, it took 0 (Chen and Zhang, 2014; Omoye and Eriki, 2014; Albersmann and Hohenfels, 2017). The second variable estimated AC independence (ACINDE). Previous literature, such as Klein (2002); Fodio *et al.* (2013); Iqbal *et al.* (2015); Kankanamge (2016) and Juhmani (2017) have defined ACINDE as the ratio of independent members on the AC divided by the total number of AC members. The final variable was AC meetings (ACMEET)—the number of AC meetings per year held by AC members (Al-Rassas and Kamardin, 2015; Mishra and Malhotra, 2016; Albersmann and Hohenfels, 2017; Juhmani, 2017). Table 5.3 below, explains the description and measurements basis AC characteristics.

Table 5-3 Description of Audit Committee characteristics

Symbol	Variable Name	Description and Measurement Basis	Expected Sign
EAC	Existence of audit committee	A dummy variable takes 1 if the listed firm has a separate audit committee; otherwise 0.	(-)
ACINDE	Audit committee independence	The ratio of independent members on the audit committee divided by committee size	(-)
ACMEET	Audit committee meetings	The total number of audit committee meetings	(-)

5.3.1.3.3 Ownership Structure Measurements

This research covered four main types of ownership: institutional ownership (INSTOWN), managerial ownership (MAGOWO), external blockholder ownership (BLOCKOWN) and family ownership (FAMOWN). This study defined institutional ownership as institutions that owned five percent or more of a firm's shares. Consistent with the previous literature such as Al-Amarneh (2014); Ratnawati and Abdul-Hamid (2015); Alzoubi (2016); Rad *et al.* (2016) and Mehrani *et al.* (2017), the following institutions were considered to be institutional investors: banks, insurance firms, pension fund and investment companies. Managerial ownership in this study was defined as the percentage of a firm's shares held by directors and their families who hold 5 percent or more of the firm's shares (Liu, 2012; Alves, 2014; Ratnawati and Abdul-Hamid, 2015). However, this study estimated external blockholder as the percentage of shares held by individual investors who hold 5 percent or more (Habbash *et al.*, 2013; Alves, 2014; Dou *et al.*, 2016). Finally, a dummy variable took 1 if the firm was established by a family member. Otherwise, it took 0 (Chi *et al.*, 2014; Chen *et al.*, 2015; Vieira, 2016). Table 5.4, below, summarises the description and measurements of the ownership variables.

Table 5-4 Description of Dependent and Ownership Variables

Symbol	Variable Name	Description and Measurement Basis	Expected Sign
INSTOWN	Institutional ownership	Institutions that own 5 percent or more of firm's shares	(-)
MAGOWN	Managerial ownership	The percentage of shares held by directors and their families more than 5 percent	(+)
BLOCKOWN	Blockholders ownership	The percentage of shares held by individual investors who hold 5 percent or more	(-)
FAMOWN	Family ownership	A dummy variable takes 1 if the firm is established by a family member; otherwise, it takes 0.	(+)

5.3.1.3.4 Control Variables Stand

Based on accruals literature, we know that other factors may affect the impact of CG mechanisms on accruals levels. This study aimed to employ different control variables to capture the accuracy of the mechanisms for monitoring EM. In other words, this thesis aims to evaluate the monitoring roles of both internal corporate governance mechanisms and ownership structures in constraining earnings management, as estimated by discretionary accruals. With this in mind, it is important to constrain or minimise the effects of some issues that may play a significant role in affecting earnings management prevalence in any context (Habbash, 2010; Alghamdi, 2012; Khalil and Ozkan, 2016). Some factors, such as cultural, political and management styles, cannot be estimated numerically (Ball *et al.*, 2000; Alghamdi, 2012; Man and Wong, 2013). Therefore, the current literature suggests several control variables that may affect the relationships between earnings management and corporate governance (Dechow *et al.*, 1995; Habbash *et al.*, 2014). Hence and in line with prior studies, and to control any bias of a company's specific operational activities on discretionary accruals levels, this thesis employs the following control variables: firm size (FSIZE), leverage level (LEVG), firm performance (ROA) and 'Big Four' external auditors (BIGFOUR).

5.3.1.3.4.1 Firm Size

Previous investigations have shown two different effects of a firm's size on its level of using earnings management. Some studies considered a firm's size to be one of the main incentives for adopting earnings management techniques (Khalil and Ozkan, 2016). Other investigations found that large firms are inclined to adopt such an issue as a means of reporting a specific level of earnings (Nelson *et al.*, 2002; Naz *et al.*, 2011; Chen and Zhang, 2014; Juhmani, 2017). In addition, large firms may have appropriate opportunities to reduce the expected political risks, since they may be exposed to potential political and/or public pressures, which may affect their selection of the adopted accounting choices (Watts and Zimmerman, 1983; Lobo and Zhou, 2001; Pincus and Rajgopal, 2002; Khalil and Ozkan, 2016).

On the other hand, other studies have claimed that a firm's size (in the case of large firms) plays a significant role in constraining managers' opportunistic behaviours, since active shareholder, stakeholder or other CG mechanisms may constrain managers' ability to impose their discretionary preferences and affect a firm's earnings (Becker *et al.*, 1998; Alghamdi, 2012; Guo and Ma, 2015; Amos *et al.*, 2016). The present study estimated firm size as the natural logarithm of a firm's total assets and further assumed a positive relationship between firm size and earnings management.

5.3.1.3.4.2 Firm Performance

In corporate governance and earnings management investigations, it is very common to control the effect of a firm's performance by estimating return on assets (ROA) as an index of performance (Kothari *et al.*, 2005; Abdul Rahman, 2006; Ali and Zhang, 2015).

Indeed, enhancing a firm's performance is considered one of the main motivations for adopting earnings management techniques in any context (Ronen and Yaari, 2008; Qudah, 2011). Therefore, the effect of this factor should be controlled; for example, some studies, such as Habbash *et al.* (2014); Al-Rassas and Kamardin (2015) and Badolato *et al.* (2014), have found a negative relationship between a firm's performance and earnings management, while the majority of previous studies have documented a positive association between a firms performance and earnings management (Rahman and Mohamed Ali, 2006; Habbash, 2010; Alghamdi, 2012; Iqbal *et al.*, 2015). In line with the majority of previous studies, this study assumes a positive relationship between a firm's performance and earnings management.

5.3.1.3.4.3 Leverage Levels

Leverage level has been used widely in previous studies as an index of violating debt covenants. In this vein, previous studies have presented two propositions. The first suggests a positive correlation between earnings management and leverage levels, especially when a firm is expected to violate a debt covenant. Therefore, managers may resort to adopting earnings management techniques to report a specific level of earnings to achieve debt conditions (Efendi *et al.*, 2007; Jiang *et al.*, 2008; Chen and Zhang, 2014; Khalil and Ozkan, 2016; Juhmani, 2017).

By contrast, other studies have found that highly leveraged companies are less motivated to adopt earnings management techniques (Habbash, 2010; Ianniello, 2015; Lin *et al.*, 2015). In this thesis, leverage was estimated by dividing a firm's long-term debt by its total assets.

5.3.1.3.4.4 Big-four External Auditor

The general argument in previous literature is that, the so-called 'Big Four' external auditors seem to be more experienced and qualified in constraining managers' opportunistic behaviours, since they are motivated to protect their reputations, which have been built over the course of many years. In general, being audited by one of the Big Four means that a firm's financial reports are expected to be free of manipulation (Lin *et al.*, 2015). This thesis estimates this variable as follows: if the firm is audited by a Big Four auditing office, it is denoted by a '1'; otherwise, it is denoted by a '0'. Table 5.5, below, summarises the descriptions and measurements that are the basis of the control variables.

Table 5-5 Description of Control Variables

Symbol	Variable Name	Description and Measurement Basis	Expected Sign
FSIZE	Firm size	The natural logarithm of a firm's total assets at the end of its fiscal	(+)
LEVG	Leverage	Long-term debt divided by total	(+)
ROA	Firm's performance	Net income divided by the total assets at the beginning of the year	(+)
BIGFOUR	Big-four auditing offices	A dummy variable takes 1 if the listed firm is audited by one of the big-four auditing offices; otherwise,	(-)

5.3.1.4 Empirical Model

$$\textbf{DAC} = \beta_0 + \beta_1 (\textit{INDMMB}) + \beta_2 (\textit{Non-Duality}) + \beta_3 (\textit{EXTDIRC}) + \beta_4 (\textit{BSIZE}) + + \beta_5 (\textit{BRDMEET}) + \beta_6 (\textit{EAC}) + \beta_7 (\textit{ACINDE}) + \beta_8 (\textit{ACMEET}) + \beta_9 (\text{INSTOWN}) + \beta_{10} (\textit{MAGOWN}) + \beta_{11} (\textit{BLOCKOWN}) + \beta_{11} (\textit{FAMOWN}) + \beta_{12} (\textit{FSIZE}) + \beta_{13} (\textit{LEVE}) + \beta_{14} (\textit{ROA}) + \beta_{15} (\textit{BIGFOUR}) + \varepsilon_{it}$$

5.3.1.5 Secondary Data Population and Sources

In order to achieve the study's goals, this research covered six years of financial reporting, from 2009 to 2014, for the following reasons:

1. The ASE introduced the CG code for listed firms in 2009. Thus, this research was restricted to the published data concerning CG.
2. Listed firms, in general, started to publish the required data regarding AC in 2009. Before that, accounting and finance departments were the responsible parties, working on behalf of ACs.
3. The process of collecting some CG variables (e.g. external directorships) was a difficult issue in this research, since the researcher had to examine and explore board members' profiles, presented in the annual reports, and in some case, the researcher had to contact the ASE to get further information to determine the correct number of external directorships. Therefore, this period was sufficient for the researcher to answer his research questions.

The initial population for this study covered all listed firms in the ASE between 2009 and 2014. However, some factors played a crucial role in reducing the final size of this sample, for example:

1. Estimating managers' manipulations is, to some extent, considered to be a difficult issue in some sectors, such as the banking and insurance, since these sectors by law have to adopt different operational standards and have several sectors' considerations that have to be included (Klein, 2002; Chen and Zhang, 2014; Juhmani, 2017).
2. A number of the listed firms did not disclose any information about AC characteristics, or any justification explaining this lack of disclosure. Therefore, the researcher had to exclude these firms.
3. In terms of the dependent variable calculations, some values for some variables, such as gross (PPE), were not available in any of the sources used to collect the secondary data. Therefore, the researcher had to remove these firms from the final sample.
4. All of the secondary data regarding EM, CG and ownership variables was collected manually from various sources, such as the ASE, SDC, firms' financial reports and listed firms' websites, due to the absence of organized and ready databases for the Jordanian market. Table 5.5, below, explains sample's final distribution across the different sectors.

Table 5-6 Final Sample Distribution

Description	Initial sample Num (%)	Final sample Num (%)	Number and of excluded firms
Industrial sector	71 (45.2%)	64 (47.8%)	7
Service sector	86 (54.8%)	70 (52.2%)	16
Total	**157** (100%)	**134** (100%)	23

Table 5.5, above, shows that, before excluding any firms for any reason, 157 firms were listed on the ASE from 2009 to 2014. However, 23 listed firms were excluded, which represents 14.6 percent of the initial sample. There were many reasons for excluding these 23 firms, including lack of adequate disclosure levels concerning CG and EM, which caused the sample size to be reduced. After different criteria were applied to draw the final research sample, a total of 134 firms, covering industrial and service sectors, was

analyzed. The industrial sector comprised 47.8 percent of the research sample, while the service sector covered 52.2 percent of the final sample. See Appendix (1) for more details.

5.3.1.6 Analytical Steps (Secondary Data)

In this section, the main steps that were applied to the secondary data are explained. It is worth mentioning that the researcher used Stata (14) to analyze the research data.

5.3.1.6.1 Parametric Tests Vs Non-Parametric Tests

In statistics, there are two main methods to extract finding of the secondary data; parametric tests and non-parametric tests. The choice between the two methods is not random. Several issues should be taken in consideration, such as the data patterns (Pallant, 2013). Some scholars, such as Gujarati (2009); Pallant (2013), summarized these considerations (assumptions) as follows:

1. **Normality Assumption**: This assumes that, the data should be extracted from a normally distrusted population, in which the collected data has the same characteristics (Pallant, 2013).

To test this assumption, and in line with previous studies such as Habbash (2010); Alzoubi (2016) and Alghamdi (2012), the researcher applied the Kurtosis and Skewness tests as the main indicators to decide whether the data was normally distributed or not. (See tables (6.4 and 6.6) for more detail).

The researcher checked the normality levels before carrying out any "Winsorization" actions to remove outliers. Indeed, the top 1% data values were adjusted to the 99% percentile, and the bottom 1% data values were adjusted to the 1% percentile. The researcher intentionally adopted this level of "Winsorization" to avoid any cancellation of real data since EM presents opportunistic behaviour and may be extended to reach extreme values.

2. **Homogeneity Assumption:** This assumption requires that, the sample should be selected from a population in which equal variance is available among the variables (Pallant, 2013).

The researcher estimated the homogeneity level and the results indicated a significant level of heteroscedasticity. Therefore, and to solve this issue, the researcher applied the appropriate econometrics treatment by estimating *robust-standard errors*, rather than estimating standard errors. (See table (6.11) for more detail).

3. **Multicollinearity Assumption:** This assumption focuses on the strength of connection between variables, and it assumes the absence of any significant interrelationship between the variables (Hair, 2010; Pallant, 2013).

To test this assumption, four main tests were applied to check the level of associations between the selected variables, namely the: Pearson, Spearman, Variance Inflation Factor (VIF) and tolerance tests. In general, the tests showed accepted levels of correlation between the variables. Tables 6.7 and 6.8 provide more detail.

4. **Linearity Assumption:** This assumption expects a linear relationship between the dependent variable independent variables (Pallant, 2013).

The null hypothesis of this assumption is that a linear relationship is expected to be found between the dependent variable and independent variables. The researcher used a scatterplot to test this hypothesis visually. In general, the researcher was able to determine the trend in the relationships between the dependent variable and independent variables, assuming that this assumption has been met.

The previous four assumptions introduced the parametric tests as powerful tests through which the valid and reliable findings can be extracted, based on the real values of the data. In contrast, if the selected data violates the previous assumptions, non-parametric tests are a solution to avoid compliance with these assumptions (Hair *et al.*, 2010; Pallant, 2013).

5.3.1.6.2 Random-Effect Model versus Fixed Effect Model

The main assumption of the fixed effect model is that the individuals' (observations) characteristics are correlated with the explanatory variables, in which the extracted findings may be altered or adjusted. Therefore, these correlations should be controlled. In other words, each group of observations has a unique feature that may affect the overall analysis (Pallant, 2013).

In contrast, the random effect model assumes that any variation among the various groups in the study is random and that there is no need to control the characteristics' effects of each group, since they are not expected to be correlated with other explanatory variables (Borenstein *et al.*, 2010).

In previous literature, the Hausman test has been applied widely to decide which approach is more appropriate for the selected set of data. If no association between the variables is documented, the random effect model is the appropriate choice; otherwise, a researcher should use the fixed-effect model to achieve his or her research goals. In line with this recommendation, the researcher applied the Hausman test, and the finding rejected the null hypothesis regarding this issue, suggesting that a fixed-effect model as an appropriate model (See table (6.10) for more detail).

The next step was to decide if "*all coefficients for all years are jointly equal to zero*". The results shown in table 6.10 rejects this hypothesis and showed the need to add the time to the fixed-effect model. Table 5.6, below, summarises the adopted tests in terms of the secondary data analysis.

Table 5-7 Summary of Secondary Data Analysis

Statistical Techniques	Types of Tests	Table
OLS regression	Applied to estimate discretionary accruals levels as an index of EM	(6.1 & 6.2)
Descriptive Statistic	Mean, median, standard deviation min, max for each selected variable	(6.4, 6.5 & 6.6)
Normality tests	Skewness and Kurtosis	(6.4 & 6.6)
Correlation Matrix	Pearson, Spearman, Variance Inflation Factor (VIF) and Tolerance	(6.7, 6.8 & 6.9)
Fixed VS Random Effect Model	Hausman test (fixed-effect model)	(6.10)
Heteroscedasticity Test	Modified Wald statistic	(6.11)
Time-Fixed Effect	Regression analysis	(6.12)

5.3.1.7 Questionnaire Phase

Under the survey research strategy, a range of data collection methods is available. Among these methods, the most common is the questionnaire (Tashakkori and Teddlie, 1998; Dillman, 2000; Saunders *et al.*, 2011). Researchers, such as Saunders *et al.* (2011), do not support using this type of data collection within the general framework of exploratory studies or within studies that seek a large number of respondents to answer open-ended questions.

Various scholars such as Robson (2002); Gill and Johnson (2010) and Saunders *et al.* (2011), have summarized the main advantages and benefits of adopting the questionnaire approach, as a collection method, as follow:

1. This approach utilizes standardized questions to collect participants' perceptions regarding specific issues, where all respondents are expected to interpret and understand the questions similarly.
2. It has the ability to investigate or describe different research issues simultaneously. A researcher can employ questionnaires to investigate correlations between multiple research issues, which saves the researcher both time and effort.
3. The possibility of investigating causality between different issues or variables. Rather than exploring social actors' perceptions regarding a specific issue.
4. The process of distributing and collecting questionnaire is not restricted to one researcher; it can be done in cooperation with other researchers, in comparison with secondary data or interviewing approaches.
5. In general, the cost of printing and distributing a set of questionnaires is considered to be a manageable issue compared to interviews, or other approaches which can be expensive alternatives.
6. It is a speedy process to collect and analyze data in comparison to interviews or collecting secondary data by hand.
7. Anonymity is the merit of this approach, since there is no need to present participants' names or contact details to other groups.
8. There is a probability of covering large areas for some research problems, since the researcher can list various questions to answer his/ her research questions.

Based on the previous merits of this approach, the researcher selected the questionnaire as a complementary approach to answer his research questions. In addition, using a questionnaire supported the research paradigm, since this study adopted a functionalist research perspective. Also, this approach, rather than other data collection methods, such as interviews, seemed to be a method which was acceptable to Jordanian participants, since it offered privacy, allowed them to answer questions without pressure from other people and further it showed accepted response rates in Jordan (Jarar, 2008; Halabi, 2009; Qudah, 2011; Hawary and Al-Omari, 2013; Al-Khoury *et al.*, 2015).

In this research, and similar to Alghamdi (2012), this method served two main purposes. The first was to shed light on the accruals approaches used in Jordan. The second was to capture participants' perceptions in terms of CG effectiveness in constraining EM, based on various groups' perspectives, in order to provide valid and accurate recommendations to enhance the monitoring functions of the CG mechanism within the current conditions in Jordan.

5.3.1.7.1 Questionnaires' Types

Scholars interested in research methods, such as Robson (2002); Sekaran (2006) and Saunders *et al.* (2011), have explained the main merits of the various types of questionnaire. However, there is consensus that the research objective, questions and response rate are the main significant factors to consider when selecting and designing a questionnaire (Saunders *et al.*, 2011). The individuality of each study forces the researcher to select the most appropriate type of questionnaires to achieve his or her research objectives.

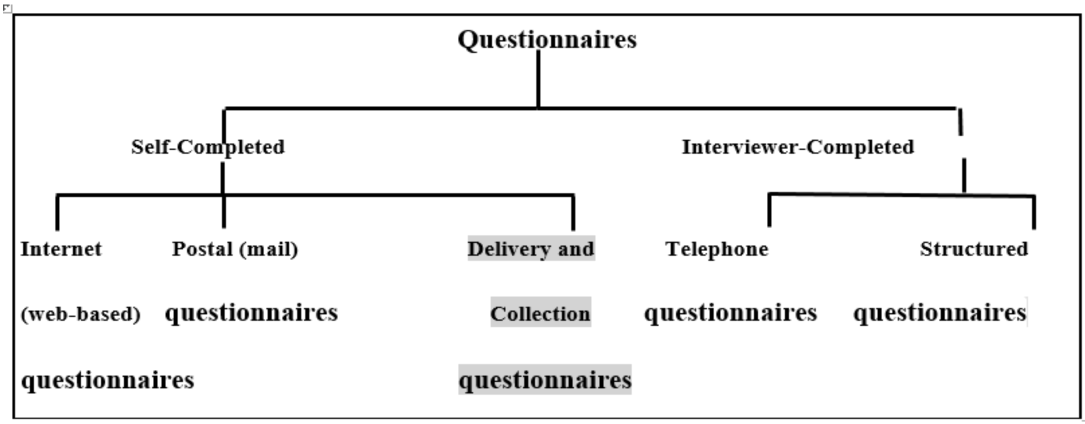
The administration process classifies questionnaires into two main categories: self-administrated and interviewer-administrated (Saunders *et al.*, 2011). The first type is usually completed directly by respondents in a number of different ways. For example, questionnaires can be distributed electronically. These questionnaires are termed "*Internet and Intranet-Mediated Questionnaires*". Alternatively, the researcher can send questionnaires to respondents by post and receive the completed product in the same way. Researchers can also deliver and collect questionnaires personally. These questionnaires are known as "*Delivery and Collection Questionnaires*".

In terms of interviewer-administrated questionnaires, the researcher has two main options: "*Telephone Questionnaires*" or "*Structured Questionnaires*". "*Telephone Questionnaires*" involve the researcher using the telephone to ask questions to the intended respondents. This type of questionnaire requires the researcher to spend more time and money to obtain an adequate response rate. Generally, the research sample will cover a small number of respondents(Saunders *et al.*, 2011).

When conducting "*Structured Interviews*", the researcher needs to be present physically to ask respondents his research question face-to-face. Similarly, this type of questionnaire requires time and financial resources to achieve an acceptable response rate (Saunders *et* *al.*, 2011). Figure 5.3, below, explains types of questionnaires based on the administration plan.

Based on this brief explanation of questionnaire types and distribution criteria, and in line with previous studies such as Jarar (2008); Halabi (2009); Elgari (2010); Qudah (2011) and Alghamdi (2012), the researcher used a self-administrated questionnaire with a specific delivery and collection technique. This collection method served the research objective, since the CG is a new phenomenon in Jordan and the researcher needed to reach specific respondents who had sufficient knowledge of the research topic. Furthermore, Jordanian people seemed to be more inclined to complete these questionnaires, since their names and positions remained hidden and they could finish the questionnaire quickly (Halabi, 2009; Qudah, 2011; Al-Khoury *et al.*, 2015). Additionally, the limited time and financial resources constrained the researcher's ability to use other types of the questionnaires.

Figure 5-3 Questionnaire Types



Source: (Saunders *et al.*, 2011:420)

5.3.1.7.2 Questionnaire Design and Development Phase

In general, designing a questionnaire is not an easy task, since various factors should be taken into account to prepare a valid and reliable instrument to achieve the research objectives (Oppenheim, 2000; Saunders *et al.*, 2011). Factors to be taken into considerations are for instance:

1. The main characteristics of the targeted populations.
2. The necessity of distributing the questionnaire to specific participants.
3. The type and the quality of statements mentioned in the questionnaire.

4. The overall number of the potential questions needed to answer the research questions.
5. The overall sample size that a researcher needs to answer his research questions.
6. The availability of financial resources and time.
7. The availability of the respondents at their offices or work fields.
8. The necessity of getting a permission to conduct this type of survey may affect the design process in general.

However, the importance of each factor varies from study to study, based on the research environment and the topic. All researchers should consider these factors in order to build a reliable and valid instrument (Saunders *et al.*, 2011).

After considering the previous factors in designing the questionnaire, and in line with Halabi (2009); Alghamdi (2012); Hawary and Al-Omari (2013) and Qudah (2011), the researcher employed the "*Delivery and Collection Questionnaire*" method to serve the research aims concerning CG roles in constraining EM prevalence in Jordan, and to explain the most common accruals approaches adopted by Jordanian managers to manipulate companies' financial reports. This research aimed mainly to capture participants' comprehension of the research problem. In light of the research aims, this questionnaire comprised the subsequent parts:

1. General information concerning each respondent's characteristics (work position, level of education, length of work experience and professional certificates).
2. A separate group of statements covering accruals techniques.
3. A separate group of statements evaluating board of directors, audit committee and ownership monitoring roles in constraining EM phenomenon in Jordan.

Table 5.8, below, explains the questionnaire design.

Table 5-8 Summary of Questionnaire Design

	Dimension	Section	Questions
1.	General Information	Section one	1, 2, 3 and 4
2.	Earnings Management Techniques	Section two	Questions 1 to 13
3.	Board of Directors Mechanisms	Section three	1, 2, 3, 4 and 12
4.	Audit Committee Mechanisms	Section three	8, 9 and 13
5.	Ownership Structure	Section three	5, 7, 10 and 11

Table 5.8, above, indicates that the EM section comprised 13 questions covering discretionary accruals techniques. These techniques were selected, based on previous studies and books related directly to earnings' management techniques (Jarar, 2008; Ronen and Yaari, 2008; Halabi, 2009; Elgari, 2010; Jones, 2011; Qudah, 2011; Alghamdi, 2012).

However, the researcher selected five mechanisms to capture board of directors' independence, which was expected to enhance the board's ability to constrain EM. Three main mechanisms were chosen to cover AC characteristics. This study also covered four main dimensions of ownership within the Jordanian context. The following sources were mostly used to design this part of the questionnaires: (Saidin, 2011; Alghamdi, 2012; Mohiuddin, 2012; Bala, 2013; Tosuni, 2013; Otman, 2014; Uwuigbe *et al.*, 2014; Jrairah *et al.*, 2015). However, the questionnaire in this study was adjusted to suit the research goals by adding or removing some variables mentioned in the previous studies.

In general, the previous questions mentioned in Table 5-8, above, represent opinion questions, since these questions aim mainly to capture participants' opinions regarding the research problem (Dillman, 2000; Saunders *et al.*, 2011).

This study used the "*forced-choice questions*" type of questionnaire's questions, for many reasons. Forced-choice questions require less time to answer than open-ended questions, which allow respondents free space to answer, and this will result in an increased response rate (Saunders *et al.*, 2011). Completing open-ended questions takes more time and effort (Fink, 2012). The main merit of forced-choice questions is that all respondents are subjected to the same questions and suggested answers. Hence, there is no room for personal interpretation (Saunders *et al.*, 2011; De Vaus, 2013). In addition, previous investigations in Jordan carried out by Jarar (2008); Halabi (2009); Qudah (2011) and Al-Khoury *et al.* (2015) used this type of questioning and they received good response rates for their studies.

However, since these questions are rated ones, the researcher used a Likert scale to estimate the questionnaire responses, whereby: strongly agree = 5, agree = 4, neutral = 3, disagree =2 and strongly disagree = 1 (Sekaran, 2006; Saunders *et al.*, 2011; Pallant, 2013). The main advantage of the Likert scale is that it offers the opportunity for researchers to evaluate respondents' opinions, thoughts and judgements concerning specific issues, by explaining their degree of harmonization or differences with a specific questionnaire question (Saunders *et al.*, 2011; DeVellis, 2012).

5.3.1.7.3 Covering Letter

Additionally, Dillman (2011) and Saunders *et al.* (2011) claimed that in order to enhance the participation rate in such a survey, researchers are highly recommended to prepare a covering letter at the beginning of their questionnaires, since it sends a clear message to the participants about the respondent, research topic and the sponsoring party, if available. Therefore, and similar to Qudah (2011); Alghamdi (2012); Owusu (2012) and Hawary and Al-Omari (2013) who attached a covering letter to their questionnaires, the researcher attached an official letter from Yarmouk University and Southampton Business School to the final draft of the questionnaire to facilitate the distribution process and to give brief information about the research and the researcher.

5.3.1.7.4 Translating the Questionnaires

Translating a questionnaire is very common for international studies. Therefore, a researcher should consider the following issues (Usunier, 1998; Saunders *et al.*, 2011):

1. **Lexical meanings**: in this case the researcher is recommended to avoid using any terms that may have double meanings.
2. **Idiomatic meaning**: some words may be clear to natives or experts, but not to individuals. Therefore, a researcher should avoid such words.
3. **Experiential meaning**: a researcher is recommended to use similar statements or words which are relevant or close to the participants' day-to-day words
4. **Grammar and syntax:** a researcher is recommended to pay attention to the grammar rules in order to prepare a well-translated questionnaire.

The researcher wrote the first draft in English, and then it was translated into Arabic by a linguistic expert to guarantee its similarity to the English version and to avoid any language mistakes during the translation process.

5.3.1.7.5 Questionnaire Validity Phase

Each collection instrument has different benefits and drawbacks, and some drawbacks may affect questionnaire validity and participation rates. In this regard, Foddy (1994: 17) said "*the question must be understood by the respondents in the way intended by the* *researcher and the answer given by the respondents must be understood by the researcher in the way intended by the respondent*". However, some researchers such as Ghauri (2010) and Saunders *et al.* (2011), support the prior argument, by focusing on solving the following issues:

1. Unclear or general questions.
2. Difficult terminologies.
3. Unorganized design.
4. Unrelated questions.
5. The presence of leading or loaded questions.
6. The presence of sensitive questions that may lead to private information.
7. Lengthy questionnaires.

In order to overcome these issues, researchers such as Lewis *et al.* (2007) and Saunders *et al.* (2011), suggest evaluating the instrument to assess its validity. In this vein, validity is "*the degree to which a measurement measures what is purports to measure*" (Bolarinwa, 2015:195). In other words, a valid instrument estimates what the researcher intended to estimate. Validity tests help researchers to modify his or her research instrument to accurately achieve the research goals. Several approaches have been suggested by Saunders *et al.* (2011) and Pallant (2013) to evaluate instrument validity. Content validity, predictive validity and construct validity are the main examples of the validity tests. Off these, and in line with Jarar (2008); Halabi (2009); Elgari (2010); Qudah (2011); Alghamdi (2012) and Hawary and Al-Omari (2013), the researcher used the content validity approach, by asking various experts in different institutions to evaluate the questionnaire (Cooper *et al.*, 2003).

Indeed, this approach to evaluating a questionnaire's validity may has some drawbacks, since this instrument is evaluated based on reviewers' judgments or experience. However, in order to avoid such a problem, and under the current conditions of this study, the researcher carried out 16 pilot studies with several academic staff in different universities, external auditors in Jordan, PhD students in UK and AC members in Jordan to evaluate the questionnaire validity in order ensure good structure, content, and avoid problems associated with the questionnaire's development.

The researcher sent these questionnaires by email and received participants' feedback by email. Indeed, most of the referees' concerns concentrated on language issues, the general structure of the questionnaire and adjusting the structure and the content of some questions which were unclear to them. Appendix (4) includes the referees' names and contact details.

5.3.1.7.6 Questionnaire Reliability Phase

In general, two main issues affect questionnaires design: validity and reliability. In this vein, Joppe (2000) defines reliability as "*the extent to which results are consistent over time and an accurate representation of the total population"* (p.1). This means that a reliable instrument offers robustness and accurate results over a study period among various respondents (Saunders *et al.*, 2011; Alghamdi, 2012). Errors in estimation that may affect instrument reliability are random errors, and do not have a significant effect on the overall reliability values (Fink, 2003; DeVellis, 2012).

Interestingly, to get a reliable instrument, a researcher should concentrate on enhancing instrument validity. However, Mitchell (1996) suggested various tests to estimate questionnaires' reliability. For example: Cronbach's Alpha, test re-test and split-half testing. For instance, Owusu (2012) applied the test re-test approach (follow up questionnaire) to check the reliability of his questionnaire as an instrument to collect his data.

Indeed, each research has unique characteristics which will make the adoption of one approach seems more appropriate than those adopted by other studies. However, among these, Cronbach's Alpha has been shown as a popular test to estimate and to decide whether the selected instrument is reliable or not (Saunders *et al.*, 2011; Pallant, 2013). Scholars, such as Saunders *et al.* (2011); Pallant (2013) have asserted the importance of using Cronbach's Alpha values to estimate questionnaire internal reliability. In line with the previous recommendations, and consistent with prior studies such as Jarar (2008); Halabi (2009); Elgari (2010); Qudah (2011); Al-Khoury *et al.* (2015) and Alghamdi (2012), this research adopted Cronbach's Alpha to calculate the questionnaire's reliability, for the following reasons:

1. The difficulty of applying the test re-test approach, since the required information is restricted to a specific target pf participants, and re-contacting them may be a challenging issue for the researcher.

2. The participants were available in different cities (Amman and Irbid), and adopting other tests to estimate the questionnaire reliability could have been costly.
3. This research covered four types of participants and this restricted the researcher's ability to consider other tests, since it was considered to be a time consuming issue in comparison with applying the Cronbach's Alpha test.

In this vein, and based on the following table, the overall value of the estimated Cronbach's Alpha reached 82%, with a maximum value of 85.3% and a minimum value of 80%. In general, and according to Hair *et al.* (2010) and Pallant (2013), the created questionnaire for this research seemed to be a reliable instrument to answer the research questions, by exploring the perceptions of the targeted respondents. Hence, and according to Hair *et al.* (2010) and Gliem and Gliem (2003), Cronbach's Alpha is deemed to be acceptable when alpha values are between 0.6 and 0.7. The measurement has high reliability if it is above 0.7. The reliability coefficients for the current study's variables were greater than 0.7, which is considered to be highly reliable according to Hair *et al.* (2010) and Saunders *et al.* (2011). The following table (5-9) explains the Cronbach's Alpha for each statement mentioned in the designed questionnaire.

Table 5-9 Reliability Test

	Statements	Corrected Item-total Correlation	Cronbach's Alpha Per Statement	Overall Cronbach's Alpha
1	Altering inventory amounts by changing valuation methods (FIFO and AVCO).	.471	.809	The Overall Cronbach' s Alpha= 81.8%
2	Altering account receivable estimation basis for doubtful accounts.	.491	.808	
3	Altering depreciation policy such as (altering useful life or salvage value	.507	.806	
4	Altering the amount of some expenses such as (research & development and maintenance allowances).	.527	.807	
5	Altering loan interest classifications.	.492	.810	
6	Altering revenue amounts by premature recognition of sales transactions.	.641	.800	
7	Inflating sales amount by altering credit notes.	.623	.801	
8	Reclassifying some cash flows to affect the operational cash flow amount.	.399	.812	
9	Capitalizing some expenses rather than recognising it as expenses.	.659	.800	
10	Recognizing assets sales (one off sales) amounts as operating revenue to improve operating income.	.535	.806	
11	Writing off firms costs to alter firm performance.	.467	.810	
12	Altering bad and doubtful debts provisions.	.591	.804	
13	Altering fixed assets sales amounts.	.572	.805	
14	Board of directors regular meetings (four meetings at least).	.240	.818	
15	Large size of board of directors (six directors at least).	.338	.814	
16	High proportion of independent members in firm's board.	.284	.816	
17	High proportion of shares owned by members of board of directors.	-.071	.830	
18	Separation between CEO and any executive position within firms.	-.393	.843	
19	The Existence of an audit committee.	.159	.821	
20	The existence of family firms ownership.	-.483	.853	
21	The existence of independent members in the audit committee	.372	.813	
22	Audit Committee regular meetings four meetings at least (more than four).	.534	.806	
23	The existence of institutional owners	.305	.821	
24	The existence of block-holders owners	.632	.802	
25	Restricting the upper limit of memberships for each board member (not more than five memberships).	.533	.804	

5.3.1.7.7 Sampling Technique and Respondents Selection Standards

According to Saunders *et al.* (2011) in any questionnaire survey researchers need to draw a clear frame of the targeted population in order to extract a sub-sample to obtain real and creditable observations and, thus, achieve their research goals. Furthermore, determining an accurate frame helps in enhancing the questionnaire's validity and reliability.

Additionally, the following matters may restrict the researcher’s ability to cover the entire population (Saunders *et al.*, 2011):

1. The topic of the research may be a challenging, new and sensitive issue in which determining an accurate frame or populations is considered to be a time consuming.
2. Limited financial budget and time restrictions.
3. The targeted participants are available in different cities or locations, and this constrains the researcher’s ability to track all the participants, since it is a costly issue.
4. The researcher started his data collection during ***Ramadan*** month, and this has constrained his ability to contact more participants to complete a copy of the questionnaire.

However, using a sub-sample to achieve a research goal means that the researcher will have a smaller amount of data to enter and, thus, a quick result can be obtained (Saunders *et al.*, 2011).

In order to adopt a valid sampling technique, Ghauri (2010); Saunders *et al.* (2011) and Cohen *et al.* (2013) suggest two techniques: probability sampling techniques and non-probability sampling techniques. In brief, under the first technique, the probability of selecting any participant from the population is known and constant in all cases. In this case, all participants in the population have the required knowledge and experience to answer the survey questions. On the other hand, a researcher may not be able to obtain valid answers to his research questions, since the probability of choosing any case from the population is unknown (Saunders *et al.*, 2011).

Based on the Jordanian context, where CG is a new phenomenon, defining an accurate research population was not applicable, for many reasons. This forced the researcher to deviate from choosing probability-sampling techniques to choosing more appropriate techniques (non-probability). However, and similar to the selection criteria used by Alghamdi (2012), the following reasons led to the selection of this sampling approach:

1. The four-targeted participants were expected to be important players in adopting corporate governance efficiently.

2. The researcher failed to draw a clear range of the questionnaire participants for his study, since not all targeted categories (board members, audit committee members, external auditors and governmental regulators) had adequate levels of knowledge concerning CG.
3. In terms of accruals techniques, the respondents needed to be literate and experienced in the issue, in order to capture the techniques used in Jordan. Thus, this limited the researcher's options.
4. In addition, determining the entire population for the covered four categories of respondents was not applicable and was time-consuming in this study. The researcher was also restricted by limited finance and time, and was unable to determine the whole population for each category.

Therefore, the researcher tried to overcome these obstacles by adopting a non-probability sampling technique. Within this sampling technique, various approaches are available: quota sampling, purposive sampling, snowball sampling or convenience sampling (Saunders *et al.*, 2011). From these, and in line with previous studies such as Alghamdi (2012), the researcher employed a snowball sampling technique to achieve his research goals. This technique is used in specific cases where the required answers are restricted to a specific group of respondents (Lee, 1993; Saunders *et al.*, 2011). The starting point was to contact the employees in the disclosure department at JSC, since they were the experts in the research topic, and to identify the knowledgeable participants who could serve the questionnaire's goals.

5.3.1.7.8 Questionnaire Administrating Process and Response Rate

After testing the questionnaire's validity and reliability, by using sufficient tests (content validity and Cronbach's Alpha), and after choosing the main groups of participants (board members, AC members, external auditors and governmental regulators), the researcher dispatched 80 questionnaires by hand to each group, with an overall total of 320 copies. The researcher received back 150 completed questionnaires, representing a 46.8% response rate. However, the researcher excluded 13 questionnaires from the final analysis for reasons such as incomplete or illogical answers. Thus, the final response rate was 42.8%, or 137 completed questionnaires. Table 5.10, below, summarises the questionnaire distribution process.

Table 5-10 Questionnaire Respondents

<table>
<tr><th rowspan="2">Groups</th><th colspan="2">Issued Ques.</th><th colspan="4">Received Ques.</th><th>Response rate</th></tr>
<tr><th>Num</th><th>Percent</th><th>Num</th><th>Percent</th><th>Overall Percent</th><th>Excluded Ques.</th><th>Percentage</th></tr>
<tr><td>Board members</td><td>80</td><td>25%</td><td>26</td><td>32.5%</td><td>18.9%</td><td>2</td><td rowspan="2">Before excluding invalid questionnaires, was (46.8%)</td></tr>
<tr><td>A/C members</td><td>80</td><td>25%</td><td>19</td><td>23.75%</td><td>13.9%</td><td>2</td></tr>
<tr><td>External auditors</td><td>80</td><td>25%</td><td>36</td><td>45%</td><td>26.4%</td><td>6</td><td rowspan="3">Final response rate consists of valid questionnaires with a final rate of (42.8%)</td></tr>
<tr><td>Governmental respondents</td><td>80</td><td>25%</td><td>56</td><td>70%</td><td>40.8%</td><td>3</td></tr>
<tr><td>Total</td><td>320</td><td>100</td><td colspan="2">137</td><td>100%</td><td>13</td></tr>
</table>

Interestingly, the final response rate (42.8 %) seems to be in line with previous Jordanian market response rates (Jarar, 2008; Halabi, 2009; Qudah, 2011; Al-Khoury *et al.,* 2015).

5.3.1.7.9 Normality Tests of the Questionnaires Phase

This section aims mainly to estimate the Skewness and Kurtosis values to check the trend of the distributed questionnaire and to see whether it was normally distributed, or not. Hair (2010) clearly indicates that normal Skewness values are located within the range ± 1.96 and, for Kurtosis, the normal levels are expected to be within ±3. Hence, and based on the following table, 24 of the questionnaire's questions were located within the normal distribution values for both indexes (Skewness and Kurtosis).

Only one item, which related to the existence of institutional owners) showed a different trend in comparison with the other items in the questionnaire. As a result, the collected data seemed to be normally distributed, and, therefore, parametric tests were applied in the questionnaire analysis phase.

Table 5-11 Normality Test of the Questionnaire

Statements		Skewness	Kurtosis
1	Altering inventory amounts by changing valuation methods (FIFO and AVCO).	-.920	-.456
2	Altering account receivable estimation basis for doubtful accounts.	-.860	-.479
3	Altering depreciation policy such as (altering useful life or salvage value	-.765	-.658
4	Altering the amount of some expenses such as (research & development and maintenance allowances).	.207	-1.221
5	Altering loan interest classifications.	.770	.047
6	Altering revenue amounts by premature recognition of sales transactions.	-.046	-1.329
7	Inflating sales amount by altering credit notes.	-.431	-1.338
8	Reclassifying some cash flows to affect the operational cash flow amount.	.625	-.269
9	Capitalizing some expenses rather than recognising it as expenses.	-.078	-1.439
10	Recognizing assets sales (one off sales) amounts as operating revenue to improve operating income.	.239	-1.299
11	Writing off firms costs to alter firm performance.	.579	-.328
12	Altering bad and doubtful debts provisions.	.374	-1.214
13	Altering fixed assets sales amounts.	.538	-.728
14	Board of directors regular meetings (four meetings at least).	-.832	-.704
15	Large size of board of directors (six directors at least).	-1.227	.570
16	High proportion of independent members in firm's board.	-1.328	1.271
17	High proportion of shares owned by members of board of directors.	-.376	-1.180
18	Separation between CEO and any executive position within firms.	.312	-1.263
19	The Existence of an audit committee.	-.992	.257
20	The existence of family firms ownership.	.551	-1.224
21	The existence of independent members in the audit committee	-.719	-.694
22	Audit Committee regular meetings four meetings at least (more than four).	.051	-1.368
23	The existence of institutional owners	6.907	6.826
24	The existence of block-holders owners	-.353	-1.268
25	Restricting the upper limit of memberships for each board member (not more than five memberships).	-.545	-1.190

5.3.1.7.10 Statistical Steps of Questionnaire Analysing Phase

In terms of questionnaire analysis, the researcher used Statistical Package for the Social Sciences (SPSS) to carry out the main steps of the questionnaire analysis process. Hence, the researcher adopted various analysis steps, such as:

1. **Descriptive tests** covering the following tests: frequencies, mean, standard deviation, ranks of respondents' answers regarding their agreement about questionnaire questions.
2. **Normality tests** covering Kurtosis and Skewness for each questionnaire item.
3. **Reliability test,** in this section, covered by a Cronbach's Alpha test.
4. **Validity test** which was estimated by distributing questionnaires to different referees to evaluate questionnaire validity. Appendix D shows referee names and contact details.
5. **ANOVA** (one-way) test, used to check the differences among questionnaire participants in terms of the questionnaire dimensions.
6. **Post-Hoc** test, which was applied to determine the different groups regarding participants' answers to each question in the questionnaire.

5.3.2 The Subjective Approach (Qualitative Method)

Social science is primarily interested in studying human behaviours in terms of specific research issues. For different reasons, such investigations face significant difficulty in estimating human behaviour in quantifiable terms (Saunders *et al.*, 2011). Quantitative research explains and illustrates the causality between variables, compared with other strands of research, which tries to deepen the researcher's knowledge and understanding of his research problem (Hughes, 2006; Saunders *et al.*, 2011).

The current research direction in social studies is to adopt combined approaches to develop a better theoretical and methodological understanding of a research problem, as employing a single method may not display precise conclusions that reflect what happens in the real world (Tashakkori and Teddlie, 1998; Creswell and Clark, 2007; Saunders *et al.*, 2011). While the previous sections have discussed the quantitative approach in detail, this section explains the proposed qualitative method. Corbin and Strauss (2008:17) describe it as, "*any type of research that produces findings not arrived at by statistical procedures*". Indeed, such researchers aim to produce a non-statistical conclusion to research a specific research problem instead of quantifying results (Saunders *et al.*, 2011).

It is worth mentioning that qualitative research falls within the general framework of interpretive methodologies, which focus mainly on interpreting human experiences or knowledge of specific problems (Burell and Morgan, 1979; Van Maanen, 1979; Saunders *et al.*, 2011). Researchers try to understand the roles of "*social actors*" to understand the contexts and settings in which the studies will be conducted. Researchers are, therefore, expected to formulate a deeper and better understanding of their research problems. Under this methodology, a set of various data collection approaches is available to researchers, for instance, interviews (Tashakkori and Teddlie, 1998; Saunders *et al.*, 2011).

From the techniques mentioned, and in line with Almasarwah (2015) and Alghamdi (2012), the researcher selected interviews, due to their competitive advantages over the other available methods and the available resources. This study, and in line with Alghamdi (2012), combined a semi-structured interview with a self-administrated questionnaire in order to understand the research problem deeply, and to interpret the results accurately, in the Jordanian context.

5.3.2.1 Interviews Types

Various academic researchers have classified interviews based on different standards. For example, some classifications rely on interview structure or the level of formality to distinguish between different types of interviews. Structured interviews, semi-structured interviews and unstructured (in-depth) interviews are the main formats based on the structure principle (Saunders *et al.*, 2011). Structured interviews refer to questionnaire surveys in which the researcher presents a set of questions to the interviewee(s).

The second type of interviews is non-standardised interviews. This category encompasses in-depth interviews and semi-structured interviews, the two types that reflect the qualitative aspect of interviews (Cassell and Symon, 2004; Saunders *et al.*, 2011). The first type is unstructured interviews. In order to carry out an unstructured interview, the researcher should have a good idea of the research problem, since no predetermined list of questions will be available for the interviewer to ask (Saunders *et al.*, 2011). This type of interview allows the interviewee to give more detail about the research issue, without restrictions. Thus, it offers the researcher a deeper and better understanding of the problem, which will help him or her to draw clear conclusions about the research (Saunders *et al.*, 2011).

In contrast, a semi-structured interview involves a pre-determined set of key questions, prepared by the interviewer (researcher) for the purpose of investigating a specific issue.

In comparison with standardised interviews, this type of interview is characterised by (Opdenakker, 2006; Newton, 2010; Saunders *et al.*, 2011):

1. The probability of changing the questions to reflect the speciality of the researched context or the targeted respondent.
2. Questions consequently may be modified from participant to another, depending on the conversation conditions.
3. The researcher can add further questions to get fuller insight in terms of a specific issue covered in the interviews.
4. It offers the opportunity for researchers to generate valid and reliable answers and information from the interviewees.
5. The researcher has the ability to illustrate any problem raised, in terms of question language or content, in which he or she can repeat the question in a different way.

In conclusion, this research and in line with previous studies such Alghamdi (2012) and Almasarwah (2015) selected the semi-structured interviews to perceive the research problem of this study extensively and further, in order to achieve the main goals of the research paradigm. These interviews were conducted during the process of distributing the questionnaire.

5.3.2.2 Semi-Structured Interview Validity

Newton (2010) summarized some factors that may threaten interview validity, for instance:

1. The presence of leading questions.
2. The presence of predetermined thoughts and opinions that reflect the researcher's perceptions in the structure or the scope of interviews questions.
3. The presence of lengthy questions, because of which the interviewees may become demotivated from completing the interview, or may provide weak and poor answers.

To overcome this issue, and similar to Almasarwah (2015)'s approach to check the questions' validity, the interview questions were refined through two pilot studies, one with a well-qualified and experienced board member within the industrial sector and another with an external auditor who worked in a big-four office. Both reviewers were interested in discretionary accruals and CG within the Jordanian context. Based on the reviewers' feedback and advice, the researcher refined the questions to achieve the research objectives.

5.3.2.3 Interviews' Questions Types

Saunders *et al.* (2011) suggest three main types of questions to conduct a valid interview, namely, open questions, probing questions and specific (closed) questions. Of these, the researcher used probing questions to explore the participants' perceptions regarding CG effectiveness in Jordan. To achieve the research objectives, and in line with Alghamdi (2012) study's, the researcher prepared a set of questions to explore the effects of board of directors, audit committees and ownership structure on constraining the accruals process. One question focused on EM, to determine the most common techniques within the Jordanian context. Another question was related directly to shed light on the main obstacles that hindered CG from being a deterrent monitoring tool, in order to constrain the EM phenomenon. See Appendix (5) for more information.

5.3.2.4 Interview Participants.

As mentioned previously, the interview was combined with another method (questionnaire). As with the questionnaire, the interviews targeted four main groups of respondents (boards of directors, AC members, external auditors and government employees). Interview respondents were subjected to the same selection specifications that were applied to the questionnaire respondents. However, and in line with Alghamdi (2012) and Almasarwah (2015), the researcher adopted the following selection criteria:

- The respondents should be engaged in completing a copy of the questionnaire.
- The respondents should be motivated and have the time to participate in these interviews.
- The respondents should be interested in the CG and EM topics.

In general, and similar to Alghamdi (2012), the purpose of conducting interviews was to get more insights and valid answers to specific research issues in a particular context, rather than examining theories or hypotheses. The main purpose of these interviews was to discover how, in practice, listed firms in Jordan adopted CG, rather than formulating hypotheses to examine.

5.3.2.5 Steps of Conducting the Interviews in Jordan

During the process of distributing the questionnaire, the researcher asked different respondents to engage in interviews. In the preliminary stage, the researcher selected sixteen participants from the covered groups. After that, two of the selected respondents (board of directors and AC members) cancelled their appointments for different reasons. Since these cancellations came at the last minute, the researcher was unable to arrange new appointments. In addition, the researcher removed two interviews because the respondents (board of director's members) offered weak and poor answers regarding the research questions. Thus, the researcher had 12 valid interviews to consider in his analysis.

In order to arrange appointments with the respondents, the researcher had to make seven visits to the Jordanian capital (Amman), since the majority of the targeted participants were carrying out their duties there. One trip was to Irbid City, located in the north of Jordan. The researcher took advantage of the face to face approach to have a discussion with the selected participants. Each discussion took 45 minutes approximately. The researcher started the interviews by providing a quick summary of the research problem. After that, each respondent signed the required document that signalled his or her agreement to participate in the interview. The researcher then collected the participants' business cards and contact information. Several participants preferred for their interviews not to be recorded; therefore, the researcher asked them to write their answers rather than recording their interviews. Table 5.12, below, provides information about the interviewees.

Table 5-12 Interviewee Information

	Position	Organization Type	Experience
1.	External auditor	KPMG office	7 Years
2.	External auditor	Deloitte office	8
3.	External auditor	Asia office	10
4.	Audit committee member	Service company	3
5.	Audit committee member	Industrial company	2
6.	Board of directors member	Industrial company	8
7.	Government employee	Amman Stock Exchange	10
8.	Government employee	Amman Stock Exchange	8
9.	Government employee	Securities Depository Centre	12
10.	Government employee	Securities Depository Centre	5
11.	Board of directors member	Service company	3
12.	Board of directors member	Industrial company	2

5.3.2.6 Semi-Structured Interview Analysis Process

This section explains the main steps taken to analyse the semi-structured interviews. The steps included:

1- **Identification:** In the first stage of analysing the semi-structured interviews, the researcher listened very carefully to the recorded interviews in order to transcribe them into accurate written copies. After that, the researcher read the transcripts many times to determine the main direction of the ideas mentioned by the interviewees. This step allowed the researcher to understand the main direction of the interviews and to become more familiar with the interview data.

2- **Reflection:** The researcher attempted to evaluate and understand the collected data and how it related to the research problem. In this step, the researcher evaluated whether the collected data supported or challenged the current research problem. This step allowed the researcher to decide whether these transcripts answered the research questions.

3- **Coding (Conceptualising):** In this step, the researcher aimed to link the transcripts and their directions. This process began with the written transcripts. The researcher labelled the main key words, phrases and short paragraphs to prepare the main codes in order to begin categorising. The researcher adopted the descriptive coding technique recommended by Saldaña (2015), since this type of coding is considered to be more appropriate for studies that aim to answer questions such as “what variables influence?” and “how does?”. In this step, the researcher labelled more than 80 codes from fourteen interviews. After finishing the labelling step, the researcher had a set of meaningful concepts that explained the investigated issue.

4- **Categorising (Theming):** Once the coding was finished, the researcher combined these codes into various categories to generate main themes. In this step, the researcher used a down-up technique to create themes. This was done by moving from the lower level (coding) to reach the higher level (theming). The researcher identified three themes: political factors, social and cultural factors and employee characteristics.
5- **Linking Data to Theories:** After finishing the previous steps, the researcher reflected the results to different theories in order to offer logical explanations and answer the investigated phenomenon.

5.4 Conclusion

The main goal of this chapter was to illustrate the research methodology in detail. The researcher started the chapter by explaining the research philosophy and research paradigm in order to clarify the research position. In terms of research methodology, the researcher was motivated to adopt a mixed-methodology to achieve his research goals. This study collected the required data from three main sources: secondary data, questionnaires and semi-structured interviews. These three sources of data offered a valuable opportunity for the researcher to understand the research problem appropriately, since a single source of data may weaken the research results in some contexts, such as Jordan. In general, employing both approaches in the same study helped the researcher to gain a comprehensive view of the CG effects on the EM levels in emerging markets. In adopting the mixed methodology, the researcher aimed to contribute to the current literature, in general, and emerging market literature, in particular, which lack this type of approach to investigating the CG roles in constraining the EM estimated by discretionary accruals (Alghamdi, 2012; Almasarwah, 2015).

With regard to the quantitative approach, the researcher analysed a set of secondary data collected from a sample of 134 non-financial listed firms between 2009 and 2014. This analysis offered an opportunity to decide whether agency theory was an appropriate theoretical framework for conducting a deductive study in this context and setting. The researcher also analysed 137 self-administrated questionnaires, collected from four types of participants. In the qualitative approach, the researcher selected 12 respondents with whom to conduct face-to-face interviews. The researcher was motivated to adopt both methods in order to gain a sound concept of the CG and EM issues in Jordan, since CG adoption was still in an introductory stage and the researcher wants to meet this challenge.

This chapter has also shed light on the main reasons behind choosing secondary data variables, the sample and the adopted analysis steps. The quantitative section explains the main motivations for the researcher’s choices regarding the questionnaire design, participants and type of questions. The final section in this chapter discussed the semi-structured interview respondents, the questions and the interview process. It is worth mentioning that the researcher analysed the collected secondary data and questionnaires by using STATA and SPSS software. In terms of the interviews, the researcher was able to conduct 12 interviews with several participants, and based on this number of interviews, the researcher analysed these interviews without using any software (by hand).

Chapter 6: Secondary Data Analysis and Results

6.1 Introduction

Chapter Five shows a detailed description of the research methodology regarding the quantitative and qualitative approaches. In detail, the methodology chapter explains secondary data section in terms of accruals model and CG variables, shed lights on questionnaire design and provides a clear structure of the semi-structured interview concerning its questions and respondents selection criteria. However, this chapter aims to illustrate the analysis and results out of analysing the data extracted from the annual reports between 2009 2014.

Furthermore, this chapter tries to provide sufficient answers and findings about the role of internal CG mechanisms and ownership structure in mitigating managers from adopting EM techniques. Hence, the structure of this chapter will be as follow: 6.2 illustrates the findings of EM model. Section 6.3 provides a summary of descriptive statistics in terms of dependent and independent variables. Section 6.4 explains the correlation matrix and the main analysis tests adopted in this research. Section 6.5 provides further robustness tests using various models and approaches. However, section 6.6 offers a clear conclusion of this chapter

6.2 Dependent Variable Findings (Discretionary Model)

As the researcher pointed in the literature review chapter, previous investigations suggested several approaches to estimate managers' opportunistic behaviours such as questionnaires, real-earnings management or total accruals approach. Among these approaches, the classical way to estimate discretionary accruals in some contexts was accruals, where the weak protection rights and low monitoring effectiveness from external auditor have motivated managers to apply such a method. Indeed, the researcher and in line with Alghamdi (2012); Chen and Zhang (2014); Habbash *et al.* (2014); Iqbal *et al.* (2015); Fernandez *et al.* (2016); Wan Mohammad *et al.* (2016) and Monsif Azzoz and Khamees (2016) has applied the total accrual approach to estimate the absolute value of the residual in the following model to estimate discretionary accruals:

$$\mathbf{TAC_{i,t}/TA_{i,t-1} = \beta_0 + \beta_1(1/TA_{i,t-1}) + \beta_2((\Delta\ Sales_{i,t} - \Delta Rec_{i,t})\ /TA_{i,t-1}) + \beta_3(\Delta\ GPPE_{i,t}\ /TA_{i,t-1}) + \varepsilon}$$

Table 6.1 shows detailed descriptive statistics of the Modified Jones model (1995) and variables coefficients over the study period, extended from 2009 until 2014.

The calculations started by applying an Ordinary Least Square (OLS) regression through the collected data to estimate discretionary accruals levels and to calculate the model's coefficients (β_0, β_1, β_2 *and* β_3) by industry for each year. However, the residual between total accrual and NDA represents the level of opportunism in mangers decisions (DAC). To achieve the research goals, this analysis covered two main sectors (industrial and service), over the financial years 2009, 2010, 2011, 2012, 2013 and 2014.

Table 6-1 Descriptive Statistics of Modified Jones Model Coefficients

Variables	Mean	Median	SD	Max	Min
Constant	-0.01815	-0.0085	.05844	0.042578	-0.1906
T. Assets	109655.9	-1431.821	666089.6	2102445	-969002.9
Sales	-0.08637	0.01961	.3344	0.3343	-1.1851
PP&E	-0.02753	-0.3300	.8609	0.8610	-0.7069

In detail, the regression findings for the Modified Jones (1995) model show a weak explanatory power of this model by reporting 22.33% as the adjusted R^2 value. This value introduces this model as a weak model to estimate EM issue in Jordan. However, previous studies carried out by Jiang *et al.* (2010); Chen and Zhang (2014); Abbadi *et al.* (2016); Alzoubi (2016) and Juhmani (2017) revealed close results of the adjusted R^2. In general, this low level is accepted in CG and accruals studies.

Table 6-1 presents serval results regarding the coefficients sign. A negative sing of PP&E is shown with an overall mean of -0.2753. This result is in line with the original model's finding, since PP&E variable presents negative accruals. However, the sales sign contradicts the main model suggestion in documenting a positive average of change in sales, instead and in line with some of emerging market contexts, table 6-1 shows a negative mean of this variable (-0.008637). It means that, over the study periods, the Jordanian listed firms have utilized this part of accruals to reduce their sales or it has been minimised as a result of the economic and political conditions between 2009 and 2014 (Riesheh, 2014; Abbadi *et al.*, 2016). However, during the study period, the Jordanian market witnessed several political circumstances such the Arab Spring and this may affect the sales value in general.

6.3 Descriptive Statistics of the Dependent and Independent Variables.

This part sheds light on the main descriptive statistics regarding discretionary accruals, and internal CG variables, ownership structure and control variables containing the following tests (Mean Percentile 50 Standard Deviation Max and Min).

6.3.1 Descriptive Statistics of the Modified Jones (1995) Model Findings.

The accruals research area has prompted interested researchers to conduct significant investigations. These investigations estimate the extent of practising discretion over the financial reports to achieve an opportunistic manager's goals. Table 6-2 summarises the main descriptive statistics of the DAC over the study years.

As presented in table 6-2, the overall mean of the residual is close to zero. Such a result shows that, the collected set of data is appropriate for this model (Klein, 2002; Alghamdi, 2012; Chen and Zhang, 2014; Monsif Azzoz and Khamees, 2016).

Table 6-2 shows that, the Jordanian listed firms have practiced EM techniques with an average of 9.04% of its assets. However, the maximum absolute mean reported in table 6-2 was 68.54% in 2010. Correspondingly, the fiscal year (2012) reported the highest mean of the EM with an average of 15.45%. On the other hand, Jordanian managers were less-motivated to adopt EM approach to alter firm's earnings in 2014 (6.75%) in comparison with the other years.

Table 6-2 Descriptive Statistics Discretionary Accruals by Year

DAC	Mean	Median	S.D	Max	Min
2009	0.0744	0.0515	0.0766	0.5147	0.0012
2010	0.0919	0.0561	0.1155	0.6854	0.0012
2011	0.0725	0.0460	0.0885	0.5863	0.0015
2012	0.1545	0.0797	0.1797	0.6854	0.0012
2013	0.0803	0.0484	0.0904	0.6854	0.0013
2014	0.0675	0.0423	0.0772	0.4297	0.0012
ABS-DAC	0.0904	0.0524	0.1146	0.6854	0.0012
Total	-1.19e-11	-	.1624461	-.92924	1.511831

Table 6-3 shows that the average absolute value of discretionary accruals obtained in this research is in line with previous studies in both developed and less-developed markets. However, the Jordanian context in terms of discretionary accruals levels shows results that support the current result. Indeed, Al-Fayoumi *et al.* (2010); Abed *et al.* (2012); Alzoubi (2016) have documented that, the Jordanian managers have practised discretion over the financial reports at an average of 11.7%, 13.3% and 9.3% based on different listed firms over various time of periods.

Table 6-3 Descriptive Statistics of DAC of Developed and less-Developed Markets

Developed Markets				**Emerging Markets**	
Author	**Country**	**Mean (DAC)**	**Author**	**Country**	**Mean (DAC)**
Klein (2002)	U.S	6.7%	Abdul Rahman	Malaysia	4%
Othman and Zeghal (2006)	French Canada	4% 7%	Memis (2012)	Turkey	9.01%
Xie *et al.* (2003)	U.S	10%	Al-Fayoumi *et al.* (2010)	Jordan	11.7%
Habbash *et al.* (2013)	U.K	5%	Abed *et al.* (2012)	Jordan	13.3%
Dimitropoulos and Asteriou (2010)	Greece	13%	Alghamdi, S. (2012)	Saudi Arabia	10.3%
Koh (2003)	Australia	6%	Khalil and Ozkan (2016)	Egypt	9.5%

6.3.2 Descriptive Statistics of the Independent Variables.

The following tables offer descriptive statistics of internal corporate governance variables, ownership and control variables classified by sectors and years over the study period in tables 6.4 & 6.5, whilst table 6.6 provides pooled descriptive statistics of the study sample over the study period. Both tables illustrate the main descriptive statistics tests containing the following: Average, percentile 50, standard deviation, max, min, skewness and kurtosis).

6.3.2.1 Descriptive Statistics of Boards Mechanisms.

Previous literature shows a vast variety of internal CG mechanisms that have played a crucial role in enhancing board-monitoring roles. In line with previous literature, this study adopts five mechanisms to evaluate board independence. With reference to independent members' presence, the average mean of introducing such members in Jordan was 50.1%. However, the Saudi market showed a higher level of compliance by reporting a higher average of independence (66.9%) (Alghamdi, 2012). In general, this value presents a statistical evidence that Jordanian firms have responded positively to the Jordanian CG code requirements regarding the independence issue. Such a moderate level of adoption is considered very good since the code is still in the phase of "*comply or explain*". However, among the covered sectors, the highest level of introducing such members was in the industrial sector, with an average of 50.4% compared with service sectors that revealed a mean of 49.8%. However, the compliance rate was in 2009 (43.87%), and this rate increased to reach (56. %) in 2014.

In terms of separation between CEO and chairman positions, table 6.6 reveals that 71.2% of Jordanian firms have responded to this requirement. Indeed, the service sector shows the highest compliance response with an average of 76.5%, compared to the industrial sector that shows a minimum separation rate, with an average of 65.6%. Interestingly, this highest rate of separation sends a clear and significant signal to the Jordanian regulators that listed firms have adopted CG code recommendations. Interestingly, the financial year (2009) showed a weak rate of separation between the CEO and chair position. Indeed, it reached (21.87%) in comparison, for example, with 2014, in which the separation rate was (89.16%).

In terms of board size, listed firms on ASE present another good example of compliance concerning board structure. Indeed, none of the listed companies on the ASE has less than five members and more than thirteen members within the non-financial sectors. According to table 6.6, the overall mean of board size is 8 directors. The highest average of board size was within the service sector, with an average of 8.18 members, and the industrial sector showed a little difference in board size with an average of 7.88 members. In general, the size of the Jordanian boards was approximately constant over the study period, since the average of board size was (8) members between 2009 and in 2014.

Comparably with the emerging markets data, the Jordanian sectors exhibited larger boards compared with, for example, the Vietnam and Egyptian markets, which revealed smaller boards size with an average of 5 and 7.75 members respectively (Essa *et al.*, 2016; Khalil and Ozkan, 2016). On the other hand, board size in Jordan is smaller than boards within developed market, such as U.K market, which reveals a higher mean of 11 members (Habbash, 2010).

The fourth internal CG mechanism covers boards meetings. As table 6.6 shows, the Jordanian listed firms have conducted on average seven meetings annually with a median of 7 meetings. The busiest sector was the service sector, with average of 7.8 meetings. However, the industrial sector data implies that the frequency of conducting board's meetings was 6.5 meetings annually. The regularity of holding recurrent meetings within the Jordanian market seems to be less than the Tunisian context, which has an average of 5 meetings (Zgarni *et al.*, 2014). Consequently, the French firms were less active in compare with the Jordanian firms, indeed, the average board meetings was 6.61 per year (Halaoua *et al.*, 2017). In general, firms' board were more active in 2014 in comparison with 2009, since the collected data showed that the averages of holding board's meetings were 7 meetings in 2009 and increased 8 in 2014.

Table 6.6 indicates that the average of external seats of Jordanian managers was on average 2.21, with a median of 2.2. Interestingly, managers within the industrial sector were the busiest managers, compared with other managers in the service sector, with an average of 2.365 and with a maximum average of directorships of 4.2 external directorships. However, and after enacting CG code in Jordan, the external seats held by Jordanian directors reduced from 3 seats in 2009 to reach 2 seats in 2014. And such a compliance rate in 2014 supports JSC efforts to reduce the upper limit of holding external directorships within the Jordanian context.

Based on previous literature, some contexts, such as Hong-Kong, Malaysia, Philippines, Singapore and Thailand, have a slightly higher average of external directorships compared with the Jordanian context, with averages of 3.16, 4.38, 4.02, 4.11 and 3.37 respectively (Lee and Lee, 2014).

6.3.2.2 Descriptive Statistics of Audit Committee Mechanisms.

In terms of AC existence, table 6.6 indicates that over the study period, the percentage of establishing a separate AC has increased significantly from 21.2% in 2009 to 76.4% in 2014. However, the overall average of introducing an AC as a separate body was 61.8%. The industrial sector shows the highest level of establishment with an average of 65.1% compared with the service sector (58.6%). Indeed, the Jordanian firms showed a good response rate with this requirement compared with the Chinese market, in which the average of establishing this committee after legislating the CG code in 2006 was 14.7% (Chen and Zhang, 2014).

Furthermore, the participation of independent members in an audit committee reached 37.3% in general. The selected sectors showed a weak response rate in attracting independent members to serve in audit committees. To illustrate, the representation averages were as follows: industrial =36.8% and service = 37.8%. Connecting this main result with previous literature showed a lower compliance rate compared with the U.S. and the Bahrain markets, in which 43.4% and 85.98% of AC members were independents (Klein, 2002; Juhmani, 2017). However, the percentage of introducing independent members to serve as independent members in audit committees was (27.5%) in 2009 in comparison with 2014, which showed a higher percentage of adoption by reporting an average of (44.7%).

Table 6.6 implies that an audit committee's frequent meetings average was 4.87, with a maximum average of 4.97 meetings within the industrial sector. The service sector shows the lowest average of conducting regular meetings compared with other sectors at 4.76 meetings. However, audit committees were more active in 2014 in comparison with 2009, since the reported averages of holding frequent meetings were 5 and 4 meetings respectively. The Bahrain data reveals a similar average by reporting 4.47 as an average of AC meetings (Juhmani, 2017). However, 3.2 meetings was the average of AC meetings in Germany according to (Albersmann and Hohenfels, 2017). Overall, table 6.6 reveals a higher average compared with the German market, with an average of 4.87 meetings annually.

6.3.2.3 Descriptive Statistics of the Ownership Structure in Jordan.

Concerning the ownership map in Jordan, this thesis covers four main types of ownership, since it was restricted to the published data in terms of a firm's ownership types. Indeed, family firms dominate the Jordanian market with an average of 60.1%. In detail, family firms run approximately 73.4 % of the service sector. The family firms percentage was (60%) of the overall non-financial market in 2009. But this percentage of ownership increased to reach (63.4%) in 2014.

Institutional investors also have a moderate presence within the Jordanian market, with an overall average of 40%. Interestingly, the notable feature of this type of ownership is that the covered sectors in this study have a maximum institutional ownership with an average of approximately 90%. However, the percentage of ownership of such owners was approximately constant over the study period by reporting an average of (40%) between 2009 and 2014. Indeed, this level of ownership seems to be less than the percentage reported by Mehrani *et al.* (2017) who found that, 49% of firms shares were controlled by institutional investors in Iran.

In relation to managerial ownership, table 6.6 implies a weak presence of managerial ownership with an accumulated average of 14.67%. In addition to that, among the non-financial sectors, the level of managerial ownership within the industrial sector reached 15.7% in compare with the service sector which showed that 13.6% of firm's outstanding shares were owned by mangers. Similar to the previous conclusion regarding institutional ownership in Jordan, the percentage of the managerial ownership showed a constant average by reporting an average of (14%) between 2009 and 2014. In general, this percentage (14.67%) is more than managerial ownership within the Australian context (Liu, 2012).

Finally, among the vast variety types of ownership, the blockholders' stake was the lowest one with an average of 8.96%. Interestingly, the service sector shows the highest average of ownership with an average of 75.2%, whilst the lowest average was in the industrial sector with an average of 61%. Interestingly, the ownership percentage of such owners increased from (7.74%) in 2009 to reach (10.23%) in 2014.

6.3.2.4 Control Variables.

Relying on prior accruals and corporate governance studies, this study selects the most significant variables that may affect the relationships between discretionary accruals and internal CG mechanisms. This study covers four main control variables (Return on Assets (ROA), Firm Size, Leverage and Big-Four External Auditors).

To specify, the overall mean of ROA is 1.43% with a highest ROA of 35.32% and a lowest level of ROA of -34.91%. In 2009, the average of ROA was 1.43% and this percentage increased in 2014 to reach 2.5%. Among the investigated sectors, service sector has the highest average of ROA with an average of 3.45% compared with industrial sector data that reveals the lowest average with -.349%. In terms of firm size, the accumulated average of all sectors was 7.34 with a largest firm size being 9.034 and the lowest firm size 5.974. However, the industrial and service sectors show the highest firm size with an average of 9.034. In fact, the firms’ size showed approximately a constant average between 2009 and 2014 by reporting an average of 7.34 and 7.35 respectively.

In relation to hiring a highly reputable external auditor, 51.5% of listed firms have hired one of the big-four audit offices in Jordan. Among the main sectors, the service sector shows a high percentage of hiring big-four auditors with an average of 59.6%. Significantly, the percentage of hiring one of the big-four auditors increased form 43.75 % in 2009 to reach 56.63% in 2014.

On the other hand, the average of using a big-four external auditor within the industrial sector is 43.6%. In regards to firms’ leverage levels, the overall level of the leverage reaches 33.54%, with a maximum level of 100.424% and minimum level of 0.47%. However, in 2009 the leverage ratio was 31.4% in comparison with 2014 by which this the leverage ratio increased to reach 43.2%.

Table 6-4 Descriptive Statistics of Study Variables Classified by Sector

	Mean		Median		SD		Min		Max		Skewness		Kurtosis	
Sector	**Industrial**	**Service**	**Industrial**	**Service**	**Industrial**	**Service**	**Industrial**	**Service**	**Industrial**	**Service**	**Industrial**	**Service**	**Industrial**	**Service**
DAC	.117	.065	.072	.039	.134	.083	.0012	.0012	.684	.685	2.29	3.88	8.782	23.549
	Board of Directors Characteristics													
BRDIND	.504	.498	.5	.5	.0921	.0796	.333	.333	.666	.667	-.168	-.265	2.10	2.115
Non-Dual	.656	.765	1	1	.475	.424	0	0	1	1	-1.254	-.936	2.57	1.87
BRDSIZE	7.88	8.18	8	7.5	1.964	.424	5	5	13	13	.340	.621	2.78	2.92
BRDMET	6.8	7.8	6	7	1.657	2.354	3	3	13	14	.753	.812	4.48	3.41
BRDDIRC	2.365	2.061	2.33	2	.773	.898	1	0	4.1	4.2	.221	.195	2.38	2.30
	Audit Committee Characteristics													
A/ C Exist	.651	.586	1	1	.477	.493	0	0	1	1	-.350	-.488	1.40	1.23
A/C INDE	.368	.378	.333	.333	.165	.168	0	0	.667	.667	-.327	-.276	3.17	3.21
A/C MEET	4.97	4.76	5	4	1.24	1.73	2	2	10	10	.801	.906	3.913	3.93
	Ownership Structure Variables													
FAMOWN	.481	.734	0	1	.500	.442	0	0	1	1	.0749	-1.06	1.005	1.20
INSTOWN	.403	.396	.406	.376	.249	.153	0	0	.909	.90	.0999	.303	2.257	2.053
BLOCKOW	.066	.1122	0	.065	.11	.166	0	0	.61	.752	2.46	2.45	9.36	8.78
MANAGOW	.157	.136	.084	.078	.186	.153	0	0	.755	.68	1.31	1.41	3.94	4.4
	Control Variables													
ROA	.006	.022	.0216	.0286	.107	.099	-.349	-.349	.3532	.3532	-.357	-.584	5.65	6.42
LEVG	.376	.296	.335	.243	.455	.23	.0047	.0129	1.042	.9583	.667	1.077	2.88	3.11
SIZE	7.24	7.43	7.17	7.45	.592	.613	5.97	5.97	9.03	9.03	.738	.109	3.85	3.34
BIG 4	.436	.596	0	1	.4967	.4921	0	0	1	1	.254	-.372	1.064	2.13

Table 6-5 Descriptive Statistics Classified by Financial Years

Years	2009			2010			2011			2012			2013			2014		
Variable	**Mean**	**P50**	**SD**	**Mean**	**P50**	**SD**	**Mean**	**P50**	**SD**	**Mean**	**P50**	**SD**	**Mean**	**P50**	**SD**	**Mean**	**P50**	**SD**
DAC	.074	.051	.074	.091	.056	.115	.072	.046	.088	.154	.079	.18	.08	.047	.090	.067	.042	.077
Board of Directors Characteristics																		
BRDIND	.438	.428	.074	.441	.42	.073	.471	.444	.078	.536	.55	.072	.56	.571	.054	.562	.571	.051
Non-Duality	.218	0	.415	.546	1	.499	.828	1	.378	.898	1	.303	.904	1	.295	.891	1	.312
BRDSIZE	8.10	8	1.92	8.02	8	1.95	8	7.5	1.98	8	7.5	2	8	7	2	7.97	7	2.02
BRDMET	6.54	6	1.92	7.10	7	1.99	7.36	7	2.06	7.46	7	2.14	7.51	7	2.09	7.61	7	2.18
BRDDIRC	2.41	2.4	.903	2.29	2.29	.849	2.19	2.2	.847	2.15	2.07	.83	2.11	2	.820	2.088	2	.802
Audit Committee Characteristics																		
A/ C Existence	.212	0	.417	.429	0	.496	.757	1	.43	.781	1	.415	.776	.1	.418	.764	1	.425
A/C INDE	.275	.25	.191	.274	.25	.171	.323	.33	.151	.383	.33	.149	.429	.4	.145	.446	.5	.150
A/C MEET	4.1	4	1.53	4.84	5	1.44	5.02	5	1.54	4.81	5	1.31	5	5	1.60	4.93	5	1.51
Ownership Structure Variables																		
FAMOWN	.601	1	.491	.601	1	.495	.60	1	.491	.601	1	.491	.616	1	.488	.6363	1	.483
INSTOWN	.390	.375	.256	.395	.403	.259	.398	.405	.261	.397	.405	.264	.411	.411	.267	.40	.403	.263
BLOKOWN	.077	.05	.126	.084	.051	.131	.085	.0519	.134	.091	.054	.148	.097	.053	.156	.102	.055	.159
MANGOWN	.1446	.089	.163	.1438	.089	.162	.148	.0864	.171	.146	.076	.173	.146	.078	.175	.15	.084	.1778
Control Variables																		
ROA	.018	.025	.087	.0014	.042	.113	.009	.018	.107	.019	.023	.102	.0124	.021	.101	.025	.029	.107
LEVG	.314	.288	.234	.322	.275	.238	.342	.284	.245	.349	.300	.245	.344	.299	.241	.347	.321	.256
SIZE	7.34	7.32	.591	7.32	7.30	.602	7.32	7.3	.616	7.33	7.34	.615	7.35	7.34	.626	7.36	7.36	.610
BIG 4	.437	0	.498	.476	0	.501	.527	1	.501	.54	1	.50	.552	1	.499	.563	1	.489

Table 6-6 Pooled Descriptive Statistics for Dependent and Independent Variables

Full Sample (2009-2014)							
Variable	**Mean**	**Median**	**Standard Deviation**	**Min**	**Max**	**Skewness**	**Kurtosis**
DAC	0.0904	0.052	0.1146	0.0012	0.6854	2.8831	12.894
			Board of Directors Characteristics				
BRDIND	0.501	.5	0.086	0.333	0.6666	-0.1936	2.115
Non-Duality	0.712	1	0.4531	0	1	-0.93644	1.876
BRDSIZE	8.02	8	1.980	5	13	0.4847	2.929
BRDMET	7.26	7	2.092	3	14	0.9835	4.269
BRDDIRC	2.21	2.2	.8494	0	4.2	0.1223	2.393
			Audit Committee Characteristics				
A/ C Existence	0.618	1	0.4860	0	1	-0.4880	1.238
A/C INDE	0.373	0.33	0.1662	0	.6667	-0.3005	3.19
A/C MEET	4.87	5	1.50	2	10	.9065	4.162
			Ownership Structure Variables				
FAMOWN	0.601	1	0.4881	0	1	-0.4488	1.20
INSTOWN	0.400	.401	0.2610	0	0.909	0.2131	2.146
BLOCKOWN	0.089	0.052	0.143	0	0.752	2.6785	10.73
MANAGOWN	0.1467	0.084	0.1709	0	0.755	1.4122	4.4071
			Control Variables				
ROA	0.0143	0.0240	0.1034	-0.3491	0.3532	-0.4714	5.9670
LEVG	0.335	0.2984	0.241	0.0047	1.042	0.8794	3.111
SIZE	7.340	7.32	0.610	5.974	9.034	0.4040	3.380
BIG 4	0.515	1	0.500	0	1	-0.060	1.003

6.4 Correlation Analysis for the Study Variables

This part disuses the main findings of Pearson, Spearman, Variance Inflation Factor and Tolerance tests that aimed to examine the strength of the relationships between discretionary accruals, boards of directors' characteristics, ACs characteristics, ownership variables and the control variables. Indeed, some researcher such as Hair (2010); Pallant (2013) have suggested the previous tests to check the multicollinearity issue between study's variables to make sure that there is no significant degree of association between the variables in which the overall results could be altered. Hence, the following tables 6.7 and 6.8 illustrate in detail the main results of the before-mentioned tests.

6.4.1 Pearson and Spearman Tests

The Pearson table shows that, among the different explanatory variables, a moderate correlation between board size and firm size constitutes 0.4221. Furthermore, the Spearman table indicates a similar result in terms of the board and firm size correlation. Specifically, table 6.8 indicates a moderate correlation between those variables at a level of 0.3975. Furthermore, a level of correlation between board size and AC independence is shown in table 6.7, with a correlation average of 0.3935. Another observation that deserves to be mentioned is between firm size and AC meetings, with an average of 0.4242.

According to Cohen (1988) who classified the strength of correlation between variables into three main categories ranging from small, medium and large correlations, tables 6.7 and 6.8 indicate that all variables in this study are located within the small and medium categories of correlation.

In light of Gujarati (2009); Hair (2010) and Pallant (2013) recommendations, Pearson and Spearman results showed accepted levels of correlation between variables, and such levels of correlation are not expected to affect regression results and interpretations, since the crucial levels of multicollinearity is around 0.80.

In order to support Person and Spearman results concerning the multicollinearity issue, further tests such as Variance Inflation Factor (VIF) and Tolerance have been carried out. Table 6.9 presents that none of the investigated variables has a VIF level of more than 10, which is considered a critical value to consider multicollinearity as a crucial problem, which then has to be solved or minimised (Pallant, 2013). The highest level of VIF was 2.18 for firm size, whilst the lowest level of VIF was 1.05 for AC existence. However, the overall average of VIF was 1.31. In terms of Tolerance values, none of the predicted values were lower than the critical value, which is 0.10. Therefore, and based on Greene (2008); Gujarati (2009) and Pallant (2013), multicollinearity is not existed at a significant level where regression results may be misinterpreted.

Following previous studies, the multicollinearity phenomenon is not a crucial issue in this study, since the previous tests (Pearson, Spearman, Variance Inflation Factor and Tolerance) showed normal levels of correlations between variables. Therefore, it is not expected to affect the validity of main results in this thesis.

Table 6-7 Pearson Correlation Coefficients for Dependent and Independent Variables

(* **) Denotes Statistical Significance at 0.05 & 0.01 Levels Respectively

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
DAC (1)	1																
BORIND(2)	0.0741*	1															
Non-Duality(3)	0.0543	0.3220**	1														
BOASIZE(4)	-.1483**	-0.0547	0.0588	1													
BOAMEET(5)	-0.664	0.0920*	.2201**	0.1601**	1												
DIRSHIP(6)	0.018	-.1451**	0.0077	0.0761*	0.0435	1											
A/C Exists(7)	0.0167	0.2676**	0.3541*	0.3684**	.1751**	-0.0344	1										
A/C INDE(8)	-.0945*	0.1654**	0.0966*	0.3935**	-0.0019	-0.0067	-0.0242	1									
A/C MEET(9)	-0.0557	-0.0064	0.0949*	0.1942**	.3302**	.1313**	0.0740	.1387**	1								
FAMILY(10)	-.1102**	-.1381**	-.1424**	-.0346	-0.4950	-.1409**	-.1395**	.0229	-.2925**	1							
INSTIT(11)	-0.0289	-.0984**	0.0447	0.0638	-0.0150	0.0334	0.0933*	-.131**	0.0790	-.1335**	1						
MANAG(12)	0.0586	0.0975**	-.1070*	-.1341**	0.0073	0.0646	-.0786*	-0.006	-.1919**	.0979**	-.364**	1					
BLOCK(13)	-0.0104	0.0107	-0.0534	-.1593**	-.0744*	0.0098	-.1169*	0.0013	-.2078**	0.2282**	-.339**	-.0008	1				
ROA(14)	-.1384**	-0.0012	-0.0346	0.0883*	0.0922*	0.0293	0.0248	0.0756	0.0594	0.0366	0.0542	0.0342	-.0311	1			
FIRMSIZE(15)	-.2511**	-0.0638	0.0951*	0.4221**	.2603**	.1165**	.1718**	.2609**	.4242**	-0.0521	.1085**	-.223**	-.205**	0.2966*	1		
BIG-FOUR(16)	-.1512**	-0.0235	0.1532*	0.1787**	.1478**	.1498**	0.0908*	0.0072	.2811**	-0.0035	.2409**	-.099**	-.0789*	0.1224*	.3186**	1	
LEVERAGE(17)	.1477**	0.0676	0.1121*	0.0222	.1396**	.2006**	.1142**	-0.034	.2621**	-.2414**	-.119**	-.0850*	-0.0460	-.1716*	.2951**	0.0587	1

Table 6-8 Spearman Test for Dependent and Independent Variables

(*) Denotes Statistical Significance at 0.05																	
Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
DAC (1)	1																
BORIND(2)	0.0369	1															
Non-Duality(3)	-0.0132	0.3178*	1														
BOASIZE(4)	-.0972*	-.0982*	0.0439	1													
BOAMEET(5)	-0.0282	.1049 *	0.2486*	0.1329*	1												
DIRSHIP(6)	0.0335	-.1533*	0.0037	0.0686	0.0469	1											
A/C Exists(7)	0.0111	0.2604*	0.3541*	0.3794*	0.1606*	-0.0351	1										
A/C INDE(8)	-0.0507	0.1412*	0.1123*	0.3613*	0.0383*	0.0041	-0.0163	1									
A/C MEET(9)	0.0175	0.0101	0.0996*	0.1627*	0.2233*	0.1502*	0.0851	0.1479*	1								
FAMILY(10)	-.1003*	-.1353*	-.1424*	-0.0210	-.0235	-.1384*	-.1395*	0.0333	-.2824*	1							
INSTIT(11)	-0.0336	-.0978*	0.0524	0.1061*	-.0035	0.0385	0.1041*	-.1353*	0.0645	-.1463*	1						
MANAG(12)	-0.0205	0.1005*	-.1174*	-.1520*	-.0018	0.0808*	-0.0709	0.055	-.2145*	0.1433*	-.3856*	1					
BLOCK(13)	0.0367	-0.0175	-0.0246	-.1037*	-.1303*	-0.0442	-.0921*	0.0101	-.2201*	0.2733*	-.3614*	0.1739*	1				
ROA(14)	-.1036*	0.0117	-0.0227	0.1076*	.1198*	0.0114	0.0157	0.1112*	0.0557	-0.0141	0.0451	0.031	-.149*	1			
FIRMSIZE(15)	-.2053*	-0.0632	0.0891*	0.3975*	.2114*	0.0967*	0.1665*	0.2758*	0.2920*	0.0097	0.1056*	-.1780*	-.191*	0.3052*	1		
BIG-FOUR(16)	-.1101*	-0.0242	0.1532*	0.1585*	.1325*	0.1481*	0.0908*	-0.0002	0.2445*	-0.0035	0.2323*	-.1557*	-.0605	0.1195*	0.3062*	1	
LEVERAGE(17)	0.1996*	0.0544	0.1226*	0.0533	.1124*	0.2057*	0.1345*	-0.0092	0.1875*	-.2363*	-.1011*	-.1073*	-0.066	-.1542*	0.2739*	0.0431	1

Table 6-9 Variance Inflation Factor (VIF) Test

Variance Inflation Factor(VIF)		
Variable	**VIF**	**1/VIF (Tolerance)**
FIRMSIZE	**2.18**	0.457966
BOASIZE	1.53	0.654775
ACMEETIN	1.52	0.657759
MANAG	1.48	0.677840
LEVERAGE	1.44	0.692797
INSTIT	1.41	0.708187
A/C INDE	1.41	0.711286
BIG-FOUR	1.33	0.749146
BLOCK	1.33	0.749652
FAMILY	1.32	0.756237
BOARDMEET	1.26	0.793733
DIRSHIP	1.26	0.796109
ROA	1.22	0.819762
BORIND	1.22	0.822285
Non-Duality	1.21	0.824499
A/C Exists	**1.05**	0.953045
Mean VIF	**1.39**	

6.4.2 Test of Hypotheses

Through the analysis of the secondary data, the researcher has applied the regression analysis to detect the association between discretionary accruals levels and several explanatory variables represent the monitoring tools in Jordan. The majority of previous investigation presented in the literature review chapter have applied this techniques to test the relationships between accruals issue and CG variables (Habbash, 2010; Alghamdi, 2012; Chen and Zhang, 2014; Chi *et al.*, 2014; Abbadi *et al.*, 2016; Khalil and Ozkan, 2016; Juhmani, 2017).

6.4.2.1 Normal Distribution Tests

In terms of data normality, and relying on Skewness and Kurtosis tests, Hair (2010) clearly indicates that normal Skewness values are located between the range ± 1.96 and for Kurtosis; the normal levels are expected to be between ±3. Therefore, and based on table 6.6 (see page 166), some of the selected variables failed to achieve normality criteria, since some of these variables indicated values above the normal Skewness and Kurtosis levels. Hence, and in order to overcome these issues, the researcher tried to eliminate the outliers by using valid approaches such as “*Winsorization*”, however, this technique was insufficient to remove the outliers that take these values outside of the normal ranges.

This conclusion claims that the data should be subjected to non-parametric tests to explore the relationships between EM and monitoring tools in Jordan. However, this is not the ideal suggestion, since some studies applied parametric tests to their data, and their data failed to achieve parametric conditions (Peasnell *et al.,* 2005; Rahman and Mohamed Ali, 2006; Jaggi *et al.*, 2009).

Furthermore, some studies, in order to check the differences between parametric and non-parametric tests, carried out robustness tests, and their results did not document significant deviations from parametric tests findings. Indeed, they found only slight changes in reported results (Dimitropoulos and Asteriou, 2010; Habbash, 2010; Alghamdi, 2012; Alzoubi, 2016).

Additionally, non-parametric tests have many disadvantages. Parametric tests, in contrast, are more powerful and valid compared with non-parametric tests when the collected data are closely normally distributed. According to the Skewness and Kurtosis values mentioned in table 6-6, there is no harmful deviation in these values compared with the normal values. Indeed, this set of data is more likely to be normally distributed. Second, in most cases, non-parametric tests applied ranks or medians to estimate research results, compared to parametric tests, which used real data to explore the relationships between the variables (Harwell, 1988; Pallant, 2013; Hoskin, 2014).

Based on the previous arguments and the prior evidences mentioned above, and since the collected data are close to being normally distributed, the researcher deems it appropriate to apply parametric tests to answer his research questions.

6.4.2.2 Random Effects Model versus Fixed Effects Model (Specification Test)

In order to choose between a fixed effect model and a random effect model to estimate the researcher has applied the Hausman (1978) specification test to make the appropriate decision. Under the "*Hausman (1978) specification test*", the null hypothesis imposes that the random effect model is the appropriate model, whilst the alternative hypothesis clearly states that the fixed effect model is more suitable and appropriate (Greene, 2008). Based on table 6.10, Chi-2 result indicates a significant finding by reporting a result of 0.0092 and this is a clear indication to reject the null hypothesis and accept the alternative one that assumes "fixed effect" is more suitable and appropriate for this research.

Table 6-10 Hausman (1978) Specification Test

	Random Effect	Fixed Effect
Null Hypothesis	If the Chi-2 more than 5% (Insignificant result)	If the Chi-2 less than 5% (Significant result)
Hausman Test Result	Prob > Chi-2 = (**0.0092**), less than 5%, thus fixed effect model is recommended.	

After that, the researcher checked if the current fixed effects model needs to add time-fixed effects or not. Thus, after estimating fixed effects, a "testparm" test has been carried out and the result indicates the necessity of adding a time variable to the fixed effects model, since it reveals a significant result **(**Prob > F = 0.0000). Therefore, the null hypothesis that assumes "*all coefficients for all years are jointly equal to zero*"(Pallant, 2013) is rejected. Hence, this research supports the alternative hypothesis and a time-fixed effects variable is added to the model.

6.4.2.3 Heteroscedasticity Test

In addition to the previous tests, a heteroscedasticity test is considered crucial in regression analysis to check if the data follows homoscedasticity or heteroscedasticity patterns. In other words, the presence of a heteroscedasticity issue may affect levels of significance that will lead to misinterpreting regression results. The heteroscedasticity test is available for the fixed effects model and random effects model. Indeed, the Hausman test indicates the necessity of adopting a time-fixed effect model; therefore, a Modified Wald statistic test is carried out to estimate heteroscedasticity levels.

Table 6-11 Modified Wald test for GroupWise in Fixed Effect Regression Model

H0: sigma(i)^2 = sigma^2 for all
chi2 (128) = 52536.23
Prob>chi2 = 0.0000

Table 6.11 reports a significant level of heteroscedasticity by indicating a (Prob>chi2 = 0.0000). Thus**,** the null hypothesis that claims homoscedasticity of data is rejected, and this research accepts the alternative hypothesis. Consequently, since the current data is

suffering from heteroscedasticity, a relevant test (Huber/White) has been made to estimate heteroscedasticity-robust standard errors to reduce heteroscedasticity effects.

To sum up, a multivariable regression test has been applied to investigate the roles of internal CG mechanisms on constraining EM. In relation to the Hausman specification test, the findings indicate the necessity of applying a fixed effects model instead of using a random effects model. Furthermore, the testparm test shows the necessity of adding a time effect variable to the fixed effect model.

In terms of the heteroscedasticity issue, a relevant test called the "*Modified Wald test for GroupWise in Fixed Effect Regression Model*" took place to estimate the heteroscedasticity level, and the result reveals a significant level of heteroscedasticity. Therefore, in order to overcome this phenomenon, the researcher estimated "*robust standard errors*" by applying the "*Huber/White*" test.

6.4.3 Time-Fixed Effects Regression Results and Discussion

Table 6.12 summarizes the main outputs regarding the effects of internal CG mechanisms on accruals levels based on the "Time-Fixed Effects" test with "robust standard errors" to adjust the heteroscedasticity issue that has been raised in this research.

Table 6-12 Time-Fixed Effects Model Outputs

DAC	Coefficient	Robust std. err	T-Value	P-Value
Constant	-0.7001173	0.782655	-0.89	0.373
BORIND	-0.2682772	.1198171	-2.24**	0.027
Non-Duality	-0.0167765	0.0218679	-0.77	0.445
BOASIZE	.0387028	.0426583	0.91	0.366
BOAMEET	-0.0069453	.0039699	-1.75*	0.083
DIRSHIP	0.073073	.0292355	2.50**	0.014
A/C Exists	0.0278004	.0180593	1.54	0.127
A/C INDE	-0.0922339	.0507076	- 1.82*	0.072
A/C MEET	-0.0006538	.0043175	- 0.15	0.880
FAMILY	0.0304469	.0151231	2.01**	0.047
INSTIT	-0.0302178	.0579834	-0.52	0.603
MANAG	-0.3328761	.2530924	-1.32	0.191
BLOCK	-0.3611638	.1599284	-2.26**	0.026
ROA	0.1393549	.0794324	1.75*	0.084
FIRMSIZE	0 .065322	.102534	0.64	0.526
BIG-FOUR	-0.0074943	0.0389682	-0.19	0.848
LEVERAGE	-0.0255763	.0693223	-0.37	0.713
Adj. R^2	The Adjusted R^2 for Time-Fixed Effects model is= 0.2597			
Time	Time Dummy Variable is Added to the Main Regression			
Number of Observations	462 Observation			
Asterisks levels	((***= P-value< 0.01); (**=P-value<0.05); (*= P-value<0.10))			

As the previous table shows, the explanatory power of the time-fixed effects model is 25.97%. based on the analysed data, this level is comparable and accepted compared with, for instance, Khalil and Ozkan (2016) who's model was able to explain 22.85% of the overall relationships between EM and CG in their sample. Interestingly, most of prior studies mentioned in the literature review chapter reported close levels of the adjusted R^2 (Chen and Zhang, 2014; Abbadi *et al.*, 2016; Alzoubi, 2016). However, the value of the constant in this regression has a negative sign but not a significant one with a value of -0.7470898.

6.4.4 Internal Corporate Governance Mechanisms Results Regarding Board of Directors

6.4.4.1 Independent Members and Discretionary Accruals

In line with the Agency theory framework, which proposes a significant monitoring role of independent members to act as a trustee manager to maximise shareholder wealth (Fama, 1980; Chen and Zhang, 2014), the current research expected a crucial monitoring role of such members to act on behalf of a firm's "principals" to achieve their goals. Indeed, and in line with the researcher's expectation. Table 6.12 indicates a significant invers correlation between the absolute value of discretionary accruals and the percentage of independent members within the Jordanian listed firm's boards (Coefficient= -0.2682772 and P <0.05). Our conclusion reveals a similar result compared with other studies, which supported agency theory suggestions (Alghamdi, 2012; Chen and Zhang, 2014; Chi *et al.*, 2014; Talbi *et al.*, 2015; Abbadi *et al.*, 2016; Alzoubi and Alzoubi, 2016).

In contrast, some researchers, such as Ianniello (2015); Kapoor and Goel (2016); Khalil and Ozkan (2016); Monsif Azzoz and Khamees (2016); Wan Mohammad *et al.* (2016) failed to support agency theory suggestion, however, they did not document any noticeable monitoring role of such members to constrain discretionary accruals prevalence in their contexts. They attributed their findings to the fact that listed firms have introduced non-executive independent members just to play consultative roles, rather than practising their monitoring roles (Ianniello, 2015; Khalil and Ozkan, 2016). In fact, such findings could be linked to the theoretical framework suggested by the institutional theory in which listed firms introduce independent members to send a clear signal to regulators that they adopted their recommendations regarding this mechanism, thus avoiding regulator penalties (Meyer and Rowan, 1977).

Although the Jordanian market is classified under the umbrella of emerging markets, a moderate adoption rate has reached approximately 50%. In comparison with other contexts, such as the Malaysian one, in which the proportion of independent members was around 39.91% (Wan Mohammad *et al.*, 2016) and within the Italian context, whose representation was around 37% (Ianniello, 2015).

This result achieves CG and Agency theory goals at least statistically, since it indicates a crucial monitoring effect for such directors to act efficiently on behalf of firms' owners. Hence, this study accepts hypothesis 1.

6.4.4.2 Non-Duality Function and Discretionary Accruals

The Jordanian regulators aimed to improve the financial investment market in Jordan by legislating new rules, such as the CG code for listed firms, in 2009. In terms of holding the positions of CEO and chairperson, the Jordanian code prohibits such a combination, in order to distribute monitoring tasks between board members. Consequently, this study has assumed a significant negative correlation between non-duality managers and discretionary accruals. Contrary to the research hypothesis, table 6.12 shows an inverse but not crucial correlation between non-duality positions and discretionary accruals levels (Coefficient= -0.0167765 and P-value >0.10).

Indeed, some researchers provide a logical explanation for such a result, in terms of family firm contexts. For example, such firms are dominated and controlled by family members, and if such a separation took a place, it would be theoretically just to send a clear sign for interested groups about compliance levels of CG recommendations. In general, this result is in line with Alghamdi (2012); Iqbal *et al.* (2015); Latif and Abdullah (2015); Ming-Feng and Shiow-Ying (2015); Khalil and Ozkan (2016); Muttakin *et al.* (2017). Meanwhile, this conclusion contradicts other studies which found that, non-duality mangers were not motivated and experienced enough to constrain EM behaviours (Abdul Rahman, 2006; Hashim and Devi, 2010). Hence, and based on Table 6.12, this study rejects hypothesis 3.

6.4.4.3 Board of Directors Size and Discretionary Accruals

Agency theory clearly indicates that as the number of board members increased, the likelihood of practicing opportunistic behaviour over financial reports decreased. The ideal explanation behind this argument is attributed to the assumption that large boards may have more independent members, in which such a phenomenon is expected to be constrained (Fama and Jensen, 1983). In contrast to Agency theory expectations, table 6.12 documents a positive but not significant relationship between discretionary accruals and board size (Coefficient =0.0387028 and P-value> 0.10).

Indeed, this result refutes the Agency theory argument within the family firm context in Jordan. Family firm policies prefer to hire relatives and friends to control board decisions and activities, rather than employ independent members to enhance firm performance and increase financial reporting transparency (Shanikat and Abbadi, 2011).

This main result seems to be in line with previous findings that reveal a weak monitoring role for large boards, or a positive correlation between discretionary accruals and large board size. Some researchers, such as Iqbal *et al.* (2015); Ramachandran *et al.* (2015); Talbi *et al.* (2015) have documented a positive correlation between a large board and the likelihood of engaging in discretionary accruals manipulation activities. However, it contradicts agency theory proposition that the presence of large boards will constrain opportunistic behaviours over firms' accruals (Alghamdi, 2012; Aygun *et al.*, 2014; Jamaludin *et al.*, 2015; Essa *et al.*, 2016).

However, the common feature of the Jordanian community is "*tribalism*", in which some cultural and political considerations play significant roles in determining board characteristics, specifically board size. Therefore, and based on the reported result in the previous table, this study rejects hypothesis 4.

6.4.4.4 Board of Directors Meetings and Discretionary Accruals

Another significant signal of board industriousness is board meetings. It is seen as a real monitoring participation from shareholder representatives to overview firms' operational and investment decisions.

However, in line with the general monitoring role of active boards in constraining discretionary accruals phenomenon, table 6.12 reveals a significant inverse correlation (Coefficient= -.0069453 and P-value<0.10) with respect to board frequency meetings and discretionary accruals levels. Indeed, such a result indicates a consistent result with previous literature regarding board meetings. For example, Alghamdi (2012); Sorin *et al.* (2012); González and García-Meca (2014); Zgarni *et al.* (2014); Halaoua *et al.* (2017) have supported agency theory hypothesis by claiming that active boards were more capable and eligible to constrain discretionary accruals manipulation. On the other hand, a few studies supported a contradictory point of view by reporting ineffective effects of such a mechanism on adjusting mangers behaviours to achieve their goals (Ebrahim, 2007; Jiraporn *et al.*, 2008). Based on the previous brief discussion, this study accepts hypothesis 5.

6.4.4.5 External Directorships and Discretionary Accruals

Consistent with busyness hypothesis that assumes a positive correlation between discretionary accruals and the average of external directorship of board members, table 6.12 supports this assumption by reporting a significant positive correlation between discretionary accruals and external directorship average (Coefficient= .073073 and P-value< 0.05). Furthermore, this result achieves Jordanian CG code goals, since this code prohibits board members from holding more than five external seats in other boards.

This main result is consistent with other studies, such as Sarkar and Sarkar (2009); Baccouche and Omri (2014); Jamaludin *et al.* (2015); Kapoor and Goel (2016) who documented a positive association between the accruals manipulation phenomenon and serving on external boards. In general, this finding refutes “reputation hypothesis” suggestion in which busy directors will have the upper monitoring hand in constraining EM (Hunton and Rose, 2008; Lee and Lee, 2014; Fernandez *et al.*, 2016).

Indeed, serving on an external board of directors within the emerging markets is not recommended, especially as Jordan has different drawbacks, with the main drawbacks being attributed to “tribalism” and the family firm’s presence. According to the previous discussion, this study accepts hypothesis 2.

To sum up, the researcher has selected five characteristics to capture the monitoring effects of a firm’s board in terms of constraining the EM issue. These characteristics are independent members, non-duality, board meetings, board size and external directorships of board’s members. Among the five main characteristics, independent members and board meetings have represented a significant negative association with discretionary accruals, whilst external directorships showed a significant positive correlation with discretionary accruals. On the other hand, board size seems to be positively correlated with discretionary accruals and non-duality function was found to be negatively, but not significantly, correlated with discretionary accruals levels. Overall, the board of directors shows a considerable response to act on behalf of a firm’s principals by constraining a manager’s misbehaviour at least statistically.

6.4.5 Internal Corporate Governance Mechanisms Regarding Audit Committee

The importance of an AC rises from its essential role to act as a delegated committee to constrain EM behaviours (Klein, 2002). Thus, this study selects three characteristics to evaluate AC effectiveness, and these characteristics are the existence of an AC, the independent members within an AC and the frequency of AC meetings.

6.4.5.1 The Existence of Audit Committee and Discretionary Accruals

The researcher conducted this research by suggesting a significant inverse correlation between AC presence within a firm's structure and discretionary accruals levels. However, table 6.12 shows a contradictory result to our assumption. Indeed, a positive correlation (not significant) between AC existence and discretionary accruals levels is documented rather than a negative one (Coefficient= 0.0278004 and P-value >0.10). This inconsistent result could be attributed to the fact that the majority of Jordanian listed firms did not have a separate committee known as an audit committee before activating the 2009 code (Shanikat and Abbadi, 2011), therefore Jordanian managers tried to impede AC monitoring roles to achieve their hidden goals.

Furthermore, the presence of an AC in a firm's structure is considered a new issue in Jordan. Therefore, it requires more time to be understood efficiently. Thus, this may create intrinsic motivation for Jordanian managers to devote more opportunistic efforts to the curtailment of AC monitoring tasks.

Interestingly, this result contradicts the Agency theory assumption in which AC presence is expected to reduce agency costs by constraining manipulation issues, such as accruals phenomenon. In general, this finding contradicts previous findings that document a negative correlation between AC existence and EM (Piot and Janin, 2007; Chen and Zhang, 2014; Omoye and Eriki, 2014; Albersmann and Hohenfels, 2017). A Logical justification for such a result is that, listed firms were flexible to disclose that, their firms have a separate AC with a monitoring goal to protect shareholders right, but intrinsically, their response was as a form of JSC pressure to adopt CG recommendations regarding this requirement. Hence, this study rejects hypothesis 6 that imposes a significant negative relationship between discretionary accruals and an audit committee presence in a firm's structure.

6.4.5.2 Audit Committee Independent Members and Discretionary Accruals

Although the previous mechanism "Existence of an AC" showed unexpected finding, it is still very instructive for investigating the effects of other mechanisms to draw a clear conclusion about AC effectiveness. This research addressed that independent members within AC structures are expected to act in the best interests of the shareholders; therefore, the researcher has hypothesised a significant inverse correlation between discretionary accruals and independent members within ACs.

In respect of the time-fixed effects model, table 6.12 supports the previous hypothesis by documenting a noticeable invers correlation between discretionary accruals and independent members within ACs (Coefficient=-0.0922339 and P-value <0.10). This conclusion supports Agency theory framework that assumes independent members carry out crucial monitoring actions to overview and oversee the financial report preparation process, in order to capture financial manipulation. In addition, this result seems to be in line with previous studies, such as Klein (2002); Alghamdi (2012); Chen and Zhang (2014); Faried (2014); Sharma and Kuang (2014); Iqbal *et al.* (2015); Kankanamge (2016) who reached a similar result that explains the significance of such members to constrain accruals manipulative decisions.

However, some studies failed to support this general acceptance of introducing independent members to serve within ACs (Fodio *et al.*, 2013; Hamdan *et al.*, 2013; Juhmani, 2017). Hence, and based on the extracted result presented in table 6-12, this study accepts hypothesis 7.

6.4.5.3 Audit Committee Meetings and Discretionary Accruals

Well-structured and functioning ACs may have significant monitoring roles to prevent managers' opportunistic behaviours (Juhmani, 2017). Therefore, active ACs that meet on frequent basis are expected to discuss and control the financial report preparation process efficiently (Albersmann and Hohenfels, 2017). In other words, active ACs may reduce agency costs by constraining EM decisions.

Consistent with Agency theory suggestions, this study expects a significant negative relationship between discretionary accruals and AC meetings. Table 6.12 shows a slight deviation of the research expectation, since it shows a negative, but not significant, correlation between AC meetings and discretionary accruals levels in Jordan (Coefficient

= -0.0006538 and P-value> 0.10). In general, this conclusion regarding AC meetings seems to be in line with other findings that reported a monitoring effect of such a mechanism is restricting the usage of EM (Elijah and Ayemere, 2015; Kankanamge, 2016; Mishra and Malhotra, 2016; Albersmann and Hohenfels, 2017).

In contrast, this result is different compared with other studies that failed to approve the Agency theory view in terms of AC meetings and their ability to improve financial report quality (Alghamdi, 2012; Habbash *et al.*, 2013; Al-Rassas and Kamardin, 2015; Juhmani, 2017).

Overall, table 6.12 shows a negative, but not significant, correlation between AC meetings and discretionary accruals levels, therefore this study rejects hypothesis 8.

In conclusion, based on AC results, introducing ACs to the Jordanian financial markets has adequate monitoring roles over discretionary accruals actions. Among the three main investigated characteristics, AC independence showed a significant negative correlation with discretionary accruals levels, whilst AC meetings have a negative, but not significant, monitoring effect to constrain such a phenomenon.

Indeed, these results revealed that the Jordanian regulators should focus on enhancing audit committee characteristics such as independence, accounting and financial expertise, and other characteristics that are expected to play a significant role in supporting the committee's monitoring roles, instead of focusing on establishing an audit committee as an index of its effectiveness. In other words, establishing only a separate audit committee without introducing qualified, experienced and knowledgeable members can be expected to weaken the committee's monitoring roles for constraining earnings management techniques in Jordan.

6.4.6 Ownership Structure and Discretionary Accruals

Concentrated shares has been introduced by agency theory as one of the internal monitoring tools to constrain manager's manipulations. Indeed, the presence of an optimum combination of ownership structures may have a conspicuous monitoring effect, in which conflict of interests between a firm's "principals" and "agents" is expected to be minimised (Jensen and Meckling, 1976). "*Aligning Hypothesis*" could clarify the expected decisive monitoring role of such an ownership combination clearly.

In other words, presenting managers as owners of a firm's shares may mitigate managers from practising their discretion over financial reports. Thus, agency costs may be decreased, and such a conflict could be solved without adopting different regulations, such as CG. However, this part aims to present time-fixed effects model findings regarding ownership roles in constraining the discretionary accruals phenomenon in Jordan.

6.4.6.1 Family Firms and Discretionary Accruals

The majority of previous literature with respect of discretionary accruals prevalence within family firms has a consensus opinion that suggests family firms were more willing to adopt specific practices to expropriate minority owners' benefits (Chi *et al.*, 2014). In contrast, some studies, such as Tosi Jr and Gomez-Mejia (1989), clarify their argument as follows: family investors with long-term investment plans are expected to play a crucial overseeing role to protect their wealth from being altered by opportunistic managers. In terms of the Jordanian settings, table 6.12 shows a significant positive relationship between discretionary accruals and family-controlled firms (coefficient= 0.0304469 and P-value <0.05).

This conclusion seems to be in agreement with other studies findings, such as Prencipe and Bar-Yosef (2011); Alghamdi (2012); Chi *et al.* (2014); Chen *et al.* (2015); Vieira (2016) who document a positive correlation between family firms and discretionary accruals levels. Indeed, they provide evidence of income-decreasing manipulation techniques that aim to conceal their firm's earnings from outside investors (free-rider investors). In addition to this, emerging financial markets suffer from weak protection rights and disclosure requirements. Consequently, they cannot enhance financial report transparency, which provides the opportunity to practice accruals techniques to maximise wealth (Shanikat and Abbadi, 2011).

Interestingly, this result contradicts previous studies that introduced family context as healthy environments that do not support or adopt such a practice since they have long-term investment plan (Achleitner *et al.*, 2014; Martin *et al.*, 2016). Thus, this study accepts hypothesis 11.

6.4.6.2 Institutional Ownership and Discretionary Accruals

Among previous literature, there is heated controversy over whether institutional investors can play a crucial monitoring role or not. This heated debate is supported by two points of views, the first one is called "*Active Monitoring Hypothesis*" and the second is known as "*Passive hand Hypothesis*". Under the first hypothesis, institutional investors such as banks, insurance firms or pension funds are expected to devote extensive monitoring efforts to oversee the board of director's decisions to improve financial report quality by taking advantage of their stake in shares (Mallin, 2011). On the other hand, institutional investors with short-term investment plans and motivated by weak regulations are not expected to act on behalf of their shareholders or companies, they just seek quick and safe returns on their investments (Porter, 1992).

In spite of the moderate level of institutional investor ownership in Jordan (average =40%), table 6.12 shows a negative, but not significant, correlation between institutional investors and discretionary accruals levels (Coefficient=-0.0302178 and P-value > 0.10). Indeed, this result seems to be in line with other studies findings, such as, Al-Amarneh (2014); Alzoubi (2016); Amos *et al.* (2016); Rad *et al.* (2016); Ramadan (2016); Mehrani *et al.* (2017) who present institutional investors as active, qualified and experienced owners in constraining EM behaviours; in compare with other stand of studies that showed different conclusion, in which such investors were inclined to behave passively regarding their monitoring roles (Sánchez-Ballesta and García-Meca, 2007; Roodposhti and Chashmi, 2010; Alghamdi, 2012; Ratnawati and Abdul-Hamid, 2015).

However, and based on the previous result, this insignificant result could be interpreted as a response to the weakness of the Jordanian regulations, which result in not acting as a monitoring agent to protect firms from opportunistic managers. Furthermore, institutional investment mentality in Jordan is lacking in adequate levels of financial decision experience, since investors are seeking quick returns on their investments without any monitoring activities.

On the other hand, institutional investors represented mainly by the SCC, which is directed by the Jordanian government, aims to achieve political and social goals rather than play a crucial monitoring role to protect corporation shares in the investee firms. Hence, this study rejects hypothesis 9.

6.4.6.3 Managerial Ownership and Discretionary Accruals

In terms of management ownership in listed shareholding companies, Agency theory proposes a crucial monitoring proposition for managers who own a stake in a firm's shares. In other words, this is expected to motivate managers to act in the best interests of firms' shareholders to maximise their wealth (Jensen and Meckling, 1976). With regards to the Jordanian context, table 6.12 reveals a negative but insignificant correlation between the EM phenomenon estimated by discretionary accruals and managerial ownership (Coefficient of -0.3328761 and P-value>010). Indeed, family hegemony over firm's board may restrict management from taking an active supervisory role in restricting discretionary accruals actions.

The previous result seems to be in line with prior research regarding a manager's ownership and their role in enhancing a firm's financial reporting transparency. For instance, Liu (2012); Alves (2014); Ratnawati and Abdul-Hamid (2015) documented a weak monitoring role for managers who owned a firm's shares and discretionary accruals within the Australian, Portuguese and Indonesian contexts respectively. Concurrently, this finding contradicts other studies in which managerial ownership has motivated mangers to take advantage from their superior monitoring position to achieve their personal goals instead of maximising shareholders wealth (Teshima and Shuto, 2008; Alghamdi, 2012; Nugroho and Eko, 2012; Kamran and Shah, 2014). Hence, this study rejects hypothesis 10 that imposes a significant positives correlation between EM levels and managerial ownership

6.4.6.4 Blockholder Ownership and Discretionary Accruals

Generally, this research relies on the concept that claims concentrated ownership might have the opportunity to minimise the Agency problem consequence by aligning the goals or benefits of a firm's "principals" "agents" together (Jensen and Meckling, 1976). In this regression, blockholder are defined as individuals who own more than 5% of a firm's equity. This stake of ownership gives blockholder the authority to oversee a manager's behaviour, which will constrain manipulation issues, such as EM. However, table 6.12 indicates a significant negative correlation between blockholder ownership and EM (Coefficient = -0.3611638 and P-value < 0.05). This result reveals that blockholder have demonstrated a significant monitoring role within the Jordanian context, to prevent managers from manipulating a firm's financial reports.

In relation to previous studies, this result seems to be in line with other studies, such as Habbash (2013); Alves (2014); Dou *et al.* (2016) in which blockholder were behaving as knowledgeable owners who have an adequate level of monitoring experience to protect their shares from being affected by EM actions. In contrast, some researchers found that, blockholder were unable to constrain managers' opportunistic behaviours in different contexts by documenting a positive association between such owners and accruals decisions (Guthrie and Sokolowsky, 2010; Alghamdi, 2012; Halioui and Jerbi, 2012). Therefore, the regression result seems contrary to the "*Expropriation Hypothesis*" that assumed a weak monitoring role for such owners, hence this study accepts hypothesis 12.

6.4.7 Control Variables Results

Regarding control variables selection, this study employed four variables as follows: ROA, firm's size, big-four external auditor and leverage ratio. Among the selected variables, only firm's performance estimated by the ROA ratio is shown to be significantly and positively correlated with the EM, with a coefficient of 0.1393549 and P-value of <0.10). Furthermore, a firm's size reveals a similar result compared with a firm's performance in terms of coefficient sign (coefficient=0.065322 and P-value >0.10). In contrast, leverage ratio is shown to be negatively correlated with discretionary accruals, with a coefficient -0.0255763 and P-value>0.10. Finally, consistent with the researcher's hypostasis, being a big-four external auditor has been found to be negatively correlated with discretionary accruals (Coefficient=-0.0074943 and P-value>0.10).

6.5 Robustness Tests (Checks) and Further Statistical Tests

6.5.1 Different Models to Estimate Discretionary Accruals

Previous literature concerning accruals manipulations revealed different models that could be applied to estimate a manager's opportunistic behaviour. Some of these models are the Jones Model (1991), Modified Jones Model (1995) and Kothari *et al*., 2005 Model. However, in line with previous studies, such as Alghamdi (2012); Iqbal *et al.* (2015); Alzoubi and Alzoubi (2016); Fernandez *et al.* (2016); Wan Mohammad *et al.* (2016); Juhmani (2017) this thesis has adopted the modified version of the Jones model to estimate non-discretionary accruals, and used the cash flow method to calculate the total average of accruals. Hence, in order to check the robustness of the results presented in table 6-12, this study adopted another two models: the Jones (1991) and Kothari *et al.* (2005) Models.

Indeed, and based on the literature review chapter, these two models Jones (1991) Model and Kothari *et al*, (2005) are the most efficient and superior models to capture a manager's opportunistic actions. For instance, the classical and the modified version of the Jones Model estimate non-discretionary accruals levels by focusing on property plant and equipment and sales variables to monitor any changes in these variables for estimating the accurate level of discretionary accruals.

In contrast, the Kothari *et al*, (2005) model aims to capture the effect of a firm's performance that is positively correlated with discretionary accruals (Dechow *et al.*, 1995; Kasznik, 1996). In order to control the effects of such a misspecification, Kothari *et al.* (2005) suggested to attach a firm's performance to the Modified Jones Model (1995), thus constraining any association or effects of such an issue during the estimation of discretionary accruals. In other words, this model aims to adjust discretionary accruals levels by capturing the effects of a firm's performance.

The following parts illustrate the main results obtained by applying Kothari *et al.* (2005) and Jones (1991) Models.

6.5.1.1 First Model Findings (Kothari *et al.*, 2005) Model

This part introduces the main results of the Kothari *et al.* (2005) Model and the time-fixed effect model outputs.

Table 6-13 Descriptive Statistics of Kothari *et al*. (2005) Model

Variables	Mean	Median	SD	Min	Max
Constant	-.0319782	-.0164751	.057219	-.2066887	.064413
Total Assets	114113.5	41450.84	604248.4	-936827.7	1876967
Sales	-.1429327	-.1112327	.3549821	-1.00292	.3999075
PP&E	-.0242823	-.0319032	.1664014	-.7912895	.682697
ROA	.5934957	.4584575	.5211275	.0164856	2.070001
ABS-DAC	.0853619	.0516064	.1121552	.0002357	.9640509
Adjusted R^2	The adjusted R^2 = 0.3522307				

Based on the previous table, the Kothari *et al.* (2005) model estimates the average of discretionary accruals by 8.53% of the total assets, and such a result is in line with other studies, such as Halioui and Jerbi (2012); Jamaludin *et al.* (2015); Khalil and Ozkan (2016).

In terms of the model's coefficients, the PP&E sign is negative since it reflects income-decreasing technique (depreciation and amortisation). On the other hand, the sales variable may take trends either income-increasing or income-decreasing. In this case, table 6-13 reveals a negative sales variable. Furthermore, the ROA positive sign was expected, and the previous table confirmed this by presenting a positive mean with an average of 0.5934957.

Finally, the adjusted R^2, which explains the explanatory power of the selected model presents an average of 35.22 %. Hence, such a value establishes the Kothari *et al*. (2005) model as an appropriate model to estimate discretionary accruals within the Jordanian context.

Table 6-14 presents the findings obtained by applying the Kothari *et al.*, 2005. The adjusted R^2 is 23.92%, and this value seems to be in line with previous studies, such as Bhuiyan *et al.* (2013); Jamaludin *et al.* (2015); Khalil and Ozkan (2016). The constant has a negative sign with a value of -.0536026.

The main findings presented in table 6-14, in terms of boards of director's characteristics, are in line with the Modified Jones Model results. For instance, the proportion of independent members has achieved CG goals by constraining accruals decisions in Jordan (Coefficient=-0.2924 and P-value<0.05). Likewise, the separation between a CEO position and chairperson was found to be inversely correlated with discretionary accruals (Coefficient = -0.0032 and P-value>0.10).

In addition, the board meeting frequency coefficient shows a negative and insignificant correlation with discretionary accruals (Coefficient=-0.00374 and P-value> 0.10), suggesting that as the number of board meetings increased, the likelihood of engaging in EM actions decreased. As in the Modified Jones Model results, serving on different boards concurrently had a negative impact on the overall monitoring process and reduced the quality of the monitoring mechanisms. Indeed, the researcher found a positive relationship between the average external directorships and discretionary accruals (Coefficient= 0.0291 and P-Value>0.10). However, the only result that contradicts the main test is related to board size. Compared with the Modified Jones Model (1995), board size had a positive monitoring role in constraining the opportunistic attitudes of Jordanian managers (Coefficient= -0.0055 and P-value <0.10).

In terms of AC characteristics, the prime test showed a positive correlation between establishing a separate AC and discretionary accruals estimated by the Modified Jones Model (1995). However, after controlling for the correlation effect of a firm's performance and discretionary accruals by applying the Kothari *et al.* (2005) Model, the model revealed a negative and significant correlation (Coefficient = -0.0342 and P-value <0.10). Such a result supports the agency theory perspective, which assumes a monitoring role of the A.C in achieving CG goals. The second CG mechanism related to the AC is introducing independent members to the committee structure. Based on the Kothari *et al.* Model's output, a negative and significant correlation has been documented over a sample of 134 non-financial listed firms on the ASE (Coefficient =0.1548 and P-value <0.01). Finally, AC meetings have been found to be positively correlated with discretionary accruals, as estimated by the Performance-Adjusted Model (Coefficient =0.0030 and P-value >0.10).

In terms of ownership structure, three main results were consistent with the main test results. For example, a family firm's variable shows a significant positive relationship with discretionary accruals levels (Coefficient =0.0455554 and P-value <0.10). In terms of managerial ownership, both models still present a negative correlation with discretionary accruals, but not at a significant level (Coefficient =-0.0558 and P-value>0.10). Blockholder owners played a noticeable monitoring role in constraining the opportunistic behaviours of the Jordanian managers by revealing a negative significant relationship with discretionary accruals (Coefficient =-0.467 and P-value <0.01). Among the different types of ownership, institutional owners contradict the main findings by presenting a significant positive relationship (Coefficient = 0.0928 and P-value< 0.05).

Additionally, and as the researcher found in the main test, the rest of the control variables, such as a firm's size, leverage and big-four auditor, showed the same trends in their directions and levels of significance compared with the main test.

In conclusion, some results provide evidence that a few of the variables are sensitive to the diversity of discretionary accruals estimation models; specially, when the effect of firms' performance is controlled. Previous studies found that, discretionary accruals levels may be correlated with firms' performance estimated by return on assets.

Furthermore, enhancing firms' performance is considered one of them main incentives behind adopting accruals techniques to reach a specific level of performance to achieve shareholders expectations; therefore, the behaviours of CG mechanisms and ownership types may vary form one model to another.

Table 6-14 Time-Fixed Effects Model Outputs Kothari et al, (2005) Model

DAC	Coefficient	Robust std. err	T-Value	P-Value
Constant	-.0536026	.8386569	-0.06	0.949
BORIND	-.2924161	.1289231	-2.27**	0.025
Non-Duality	-.0032992	.0220731	-0.15	0.881
BOASIZE	-.0005546	.0439536	-0.01	0.990
BOAMEET	-.0037422	.0033514	-1.12	0.267
DIRSHIP	.0291471	.0344768	0.85	0.400
A/C Exists	-.0342971	.0184558	-1.86*	0.066
A/C INDE	-.1548362	.0586165	-2.64***	0.010
A/C MEET	.0030532	.0040549	0.75	0.453
FAMILY	.0455554	.0261656	1.74*	0.085
INSTIT	.0928588	.0467373	1.99**	0.050
MANAG	-.0558259	.2563547	-0.22	0.828
BLOCK	-.4678676	.1616971	-2.89***	0.005
OPER/CAS	.0239886	.0581226	0.41	0.681
FIRMSIZE	.0334292	.1011995	0.33	0.742
BIG-FOUR	-.0211982	.0404221	-0.52	0.601
LEVERAG	-.0198262	.0899393	-0.22	0.826
Adj. R^2	The Adjusted(within) R^2 for Time-Fixed Effects model is= 0.2392			
Time	Time Dummy Variable is Added to the Main Regression			
Number of Observations	462 Observation			
Asterisks Levels	((***= P-value< 0.01); (**=P-value<0.05); (*= P-value<0.10))			

6.5.1.2 Second Model Findings (Jones, 1991) Model

Further to the Modified Jones Model (1991) and the Kothari *et al.* Model (2005), the following table introduces a brief summary of the correlations between CG, ownership structure and discretionary accruals, as estimated by the Jones (1991) Model. The reported adjusted R^2 for this model was 0.236327, and this result seems to be consistent with previous studies, such as Latif and Abdullah (2015); Lin *et al.* (2015).

Table 6-15 explains the average of the Jordanian managers' opportunistic attitudes, as estimated by the Jones Model, by reporting an average of 10.44% of the firm's total assets. This level of discretionary accruals is consistent with previous studies, such as Chen and Zhang (2014); Kumari and Pattanayak (2014); Abbadi *et al.* (2016).

In terms of the variables signs, the main model exhibits a negative sales variable sign, but under the Jones Model and in line with the majority of previous studies, the previous table shows a positive sign since it presents an income-increasing technique. In contrast, the PP&E sign is negative since it shows an example of an income-decreasing technique (depreciation and amortisation expenses).

Table 6-15 Descriptive Statistics of Jones (1991) Model

Variables	Mean	Median	SD	Min	Max
Constant	-.0390483	-.0046865	.1409589	-.4988108	.0480702
Total Assets	361199.9	70.36124	1541627	-992659.3	5378523
Sales	.1641058	.1838983	.1603107	-.1165207	.5663603
PP&E	-.0375249	-.0503309	.2275051	-.8215231	.9138095
ABS-DAC	0.1044555	.0521279	.1861205	.0000355	2.093622
Adjusted R^2	The adjusted R^2 = 23.6327%				

Consequentially, table 6-16 reports the main findings of the time-fixed effect model in terms of the association between discretionary accruals and the monitoring mechanisms.

To start with, all the findings related to board of directors characterises are in line with the main findings of the Modified Jones Model. For instance, the (BORIND) coefficient is inversely and crucially correlated with discretionary accruals (Coefficient =-0.5658247 and P-value <0.01). Moreover, this result confirms the agency theory proposition that assumes a significant monitoring role of such members. Among the three models, non-duality managers have had a weak monitoring role, indicated by a negative but not significant association with discretionary accruals (Coefficient =-0.0120933 and P-value >0.10).

Similar to the main findings, the board size coefficient shows a positive correlation with opportunistic actions (Coefficient =0.0621039 and P-value >0.10). Furthermore, and in line with the main test, as the number of board meetings increased, the probability of acting on behalf of a firm’s agents increased (Coefficient = -0.003017 and P-value >0.10). The last characteristic employed in terms of the board of director’s characteristics is the external directorship held by board members. Indeed, the Jones Model has documented a significant positive correlation between the average of external directorships and discretionary accruals (Coefficient=0.0748723 and P-value <0.05). Such a result supports the busyness hypothesis and the main findings that claim busy directors lack the required time and effort to constrain earnings manipulations (Baccouche and Omri, 2014).

Both AC characteristics (the proportion of independent members and the frequency of AC meetings) were found to be negatively correlated with discretionary accruals (Coefficient =-.1224422, P-value <0.10 and Coefficient = -.0062087 and P-value>.10) respectively. Furthermore, the presence of a separate AC within a firm's structure was found to have an inverse monitoring effect over discretionary accruals actions (Coefficient = 0.0540111 and P-value <0.05). This result in general supports the main conclusion reported in table 6-12, in which establishing a separate AC was found to be positively correlated with discretionary accruals.

However, the ownership structure results reveal a partial deviation in terms of its significance and signs, compared with the main test findings. Both institutional and managerial ownership were positively correlated with discretionary accruals manipulations; the coefficient of institutional ownership was (Coefficient =.0402821 and P-value >0.10) and the coefficient of the managerial variables was (Coefficient = .3422317 and P-value >0.10). These results present contradictory monitoring positions of such owners in comparison with the main findings mentioned in table 6-12.

In line with the selected two models, family firms were found to be a fertile ground supporting such manipulative actions. Indeed, the coefficient was (Coefficient =0.0005771 and P-value >0.10). Finally, blockholder played the expected monitoring roles, and this is represented by the negative sign of the coefficient (Coefficient =-0.3804713 and P-value >0.10).

Significantly, none of the results in terms of ownership structure showed a significant correlation with discretionary accruals actions. Therefore, such results contradict the agency theory assumption, which introduced concentrated ownership as a significant and effective monitoring tool for adjusting the opportunistic behaviours of Jordanian managers.

The results of the control variables showed a similarity with the main findings presented in table 6-12. For instance, the finding for ROA is consistent with the main test results, in which a significant positive correlation is documented with discretionary accruals levels. Similarly, leverage is found to be negatively but not significantly correlated with discretionary accruals. In contrast, both a firm's size and the big-four variables contradict the results in the main test by reporting different signs, and neither of the variables is significant.

To sum up, the main findings reported in this part seem to be in line with the main findings documented in table (6.12). However, adopting different models to estimate discretionary accruals may cause a slightly change in results; since each model has a specific set of variables that affects the process of estimation and further the process of exploring the relationships between variables. Indeed, such a conclusion has been documented by previous investigations reported in the literature review chapter (see table 3-1, 3-2 and 3-3) in which employing various models have produced various findings in different contexts.

Table 6-16 Time-Fixed Effects Model Outputs (Jones, 1991) Model

DAC	Coefficient	Robust std. err	T-Value	P-Value
Constant	-.2768585	1.481635	-0.19	0.852
BORIND	-.5658247	.2027965	-2.79*	0.006
Non-Duality	-.0120933	.0329839	-0.37	0.715
BOASIZE	.0621039	.0591856	1.05	0.297
BOAMEET	-.003017	.0068135	-0.44	0.659
DIRSHIP	.0748723	.030495	2.46**	0.016
A/C Exists	.0540111	.0267959	2.02**	0.047
A/C INDE	-.1224422	.0732645	-1.67***	0.098
A/C MEET	-.0062087	.0066031	-0.94	0.349
FAMILY	.0005771	.0248297	0.02	0.982
INSTIT	.0402821	.0826474	0.49	0.627
MANAG	.3422317	.4525985	0.76	0.451
BLOCK	-.3804713	.3022275	-1.26	0.211
ROA	.3523819	.2118449	1.66***	0.099
FIRMSIZE	-.0213263	.1931299	-0.11	0.912
BIG-FOUR	.0459745	.0356447	1.29	0.200
LEVERAGE	-.0366993	.1317138	-0.28	0.781
Adj. R^2	The Adjusted (within) R^2 for Time-Fixed Effects model is= 0.236327			
Time	Time Dummy Variable is Added to the Main Regression			
Number of Observations	459 Observation			
Asterisks Levels	((***= P-value< 0.01); (**=P-value<0.05); (*= P-value<0.10))			

6.5.2 Discretionary Accruals Findings Based on the Sign

In line with Ashbaugh *et al.* (2003); Gul *et al.* (2006); Alghamdi (2012) and Habbash (2010), the researcher separated the research sample into two sub-samples based on discretionary accruals sign. The first sub-sample consists of firms with income-increasing discretionary accruals (positive discretionary accruals) and firms with income-decreasing discretionary accruals (negative discretionary accruals). A plausible explanation for such a separation is to shed light on the monitoring behaviours of the monitoring tools in constraining EM techniques whether these techniques were up-word or down-word techniques. In other words, the incentives behind adopting earnings management techniques play a significant role in determining the direction of such opportunistic behaviours (Alghamdi, 2012). However, the main results presented in table 6-12 showed the relationships between earnings management and the monitoring mechanisms by ignoring managers' opportunistic behaviours' directions, whether negative or positive; therefore, this section aims to illustrate to what extent the monitoring behaviours of corporate governance and ownership are affected by the signs of discretionary accruals.

6.5.2.1 Income-Decreasing Techniques and Corporate Governance Findings

Table 6-17 presents the effects of CG mechanisms and ownership structure on constraining income-decreasing decisions (negative discretionary accruals). The overall adjusted R^2 is equal to 0.2762, and this value is supported by previous findings, such as Hsu and Koh (2005); Dimitropoulos and Asteriou (2010). The constant is positive with a coefficient of 0.3694.

In line with the main findings obtained by employing the modified Jones model (1995), BORIND, Non-Duality and BOAMEET presented an inverse association with income-decreasing decisions. Furthermore, BOASIZE and DIRSHIP revealed a positive correlation with income-decreasing techniques. In general, the board of director's mechanisms offered a weak and ineffective monitoring position in constraining income-decreasing manipulations, since none of the obtained results report a significant P-Value.

Interestingly, the existence of an AC is found to be negatively correlated with income-decreasing techniques. Indeed, this result contradicts the main findings in table 6-12, which showed a positive relationship between AC existence and the absolute value of the discretionary accruals. The main justification is as follows: the AC is more effective and experienced in constraining income-decreasing techniques compared with its overall monitoring role.

As the researcher expected, independent members serving on the AC were found to play an effective monitoring role by constraining managers' opportunistic behaviours. Finally, the frequency of AC meetings supports the AC's monitoring roles by reporting a negative correlation with income-decreasing discretionary accruals. Likewise, none of the reported results showed a significant effect in constraining income-decreasing behaviours.

Concerning the ownership structure, the previous table reported a positive correlation between family firms, institutional ownership and income-decreasing manipulations. On the other hand, managerial ownership is found to be negatively associated with the income-decreasing practices. However, the only type of ownership that played a significant monitoring role in constraining such actions was blockholder ownership. That means blockholder were more experienced and cautious in enhancing the quality of financial reports compared with other types of ownerships. In general, these results contradict partially the main reported results in table 6.12.

The ROA variable shows a significant negative result that contradicts the main findings. However, the firm size and big-four variables report different conclusions compared with the table 6-12. Finally, the leverage variable presents a negative but not significant correlation with discretionary accruals manipulations.

Table 6-17 Time-Fixed Effects Model Outputs (Income-Decreasing)

DAC	Coefficient	Robust std. err	T-Value	P-Value
Constant	.3696449	.8307427	0.44	0.657
BORIND	-.2804593	.190564	-1.47	0.144
Non-Duality	-.0208156	.0236297	-0.88	0.381
BOASIZE	.0488661	.053535	0.91	0.364
BOAMEET	-.0108957	.0069949	-1.56	0.123
DIRSHIP	.0186024	.0399669	0.47	0.643
A/C Exists	-.0041936	.031167	-0.13	0.893
A/C INDE	-.1010401	.0923145	-1.09	0.276
A/C MEET	-.0034819	.0075229	-0.46	0.645
FAMILY	.0264063	.01982	1.33	0.186
INSTIT	.1145518	.0692777	1.65	0.102
MANAG	-.6258241	.6161344	-1.02	0.312
BLOCK	-.42794	.2159601	-1.98**	0.050
ROA	-.2048575	.1117108	-1.83*	0.070
FIRMSIZE	-.0626884	.098427	-0.64	0.526
BIG-FOUR	.0106211	.0671886	0.16	0.875
LEVERAG	-.0220073	.1176524	-0.19	0.852
Adj. R^2	The Adjusted(within) R^2 for Time-Fixed Effects model is= 0.2762			
Time	Time Dummy Variable is Added to the Main Regression			
Number of Observations	239 Observation			
Asterisks	((***= P-value< 0.01); (**=P-value<0.05); (*= P-value<0.10))			

6.5.2.2 Income-Increasing Techniques and Corporate Governance Findings

On the other hand, table 6-18 shows a brief description of the results that explain the monitoring behaviours of the internal CG mechanisms and ownership structure in constraining managers' income-increasing techniques (positive discretionary accruals). The adjusted R^2 is equal to 0.4944, and such a high value is in line with prior investigations.

In terms of the board's mechanisms, independent members appeared as deterrent players in limiting income-increasing decisions by reporting a significant negative association. Furthermore, Non-Duality function was found to correlate negatively with such techniques. However, large boards, board meetings and busy directors were the main motivations to boost firm's earnings significantly. These results are in line with the main findings presented in table 6-12.

Regarding AC characteristics, the existence of this committee failed to constrain income-increasing by presenting a positive correlation with such manipulative decisions. In contrast, and consistent with the main findings, AC independence and AC meetings have had a negative correlation with income-increasing behaviours. The latter two results support agency theory suggestions in which both mechanisms are expected to enhance the overall monitoring process to constrain EM decisions.

With respect to ownership structure, income-increasing activities are positively correlated with family firms and institutional investors. However, this passive role of ownership disappeared concerning the monitoring role of both managerial and blockholder ownerships. Indeed, these types of ownerships are negatively and significantly correlated with income-increasing techniques.

Among the various selected control variables, only ROA is found to have a significant and positive correlation with discretionary accruals actions. Firm size and big-four auditors have a negative correlation with discretionary accruals. However, table 6-18 shows that as the leverage ratio increased the likelihood of engaging in such manipulative actions decreased.

To sum up, this section aimed to explain the behaviours of the monitoring mechanisms in constraining income-increasing and income-decreasing techniques in Jordan. Interestingly, table 6-18 shows that both internal CG tools combined with a sound structure of ownership were more successful and effective in constraining income-increasing opportunistic behaviours in comparison with table 6-17. Table 6-17 presented insignificant monitoring mechanism results in prohibiting Jordanian managers from adopting such techniques to reduce their reporting earnings.

This impressive conclusion supports previous findings within the Jordanian context, which explained that Jordanian listed firms are motivated to decrease their disclosed earnings to avoid the high tax rates imposed by the Jordanian government (Jarar, 2008; Qudah, 2011; Abed *et al.*, 2012). In other words, the Jordanian environment seems to be more experienced in constraining upward discretionary accrual techniques in comparison with other types of manipulations (income-decreasing).

Table 6-18 Time-Fixed Effects Model Outputs (Income-Increasing)

DAC	Coefficient	Robust std. err	T-Value	P-Value
Constant	-1.27423	.9531912	-1.34	0.185
BORIND	-.3209281	.1901042	-1.69*	0.095
Non-Duality	-.0335616	.0368243	-0.91	0.364
BOASIZE	.0488281	.0232205	2.10**	0.038
BOAMEET	.002657	.0070016	0.38	0.705
DIRSHIP	.0848279	.0380925	2.23**	0.028
A/C Exists	.0275766	.017712	1.56	0.123
A/C INDE	-.017293	.0592904	-0.29	0.771
A/C MEET	-.0144327	.0065766	-2.19**	0.031
FAMILY	.0749819	.1044777	0.72	0.475
INSTIT	.1182463	.1161646	-1.02	0.311
MANAG	-.7215768	.416736	-1.73*	0.087
BLOCK	-.7784622	.2749018	-2.83***	0.006
ROA	.4521683	.1230564	3.67***	0.000
FIRMSIZE	.1471565	.1314341	1.12	0.266
BIG-FOUR	-.0019486	.0343909	-0.06	0.955
LEVERAGE	-.1213681	.0963099	-1.26	0.211
Adj. R^2	The Adjusted(within) R^2 for Time-Fixed Effects model is= 0.4944			
Time	Time Dummy Variable is Added to the Main Regression			
Number of Observations	223 Observation			
Asterisks Levels	((***= P-value< 0.01); (**=P-value<0.05); (*= P-value<0.10))			

6.5.3 Discretionary Accruals Findings Based on a Firm's Sector

In this part, the researcher aims to shed light on the sector's effects on CG adoption and how the behaviours of the monitoring mechanisms change across the sectors. Such a further test is carried out to confirm the results of the main test as explained in table 6-12. Indeed, each sector has unique operational and financial characteristics in which the monitoring behaviours may vary from one sector to another. Therefore, the researcher aimed to carry out this stand of analysis in order to explore the effects of each sector on the overall monitoring process.

As the researcher reported previously, this study mainly covers the non-financial sectors within the ASE, and these sectors are the industrial and service sectors. Table 6.19 explains how CG and ownership structure behaved within the industrial sector.

6.5.3.1 Industrial Sector Findings

This sub-section explores the monitoring behaviours of CG and ownership structure in constraining discretionary accrual decisions within the industrial sector. Table 6-19 reports a negative but not significant association between independent members and discretionary accruals estimated by the Modified Jones Model (1995). Indeed, the main table 6-12 reports a different level of significance ($P=0.027$, $P<0.05$). In contrast, the separation between the CEO and chairperson positions had a significant and noticeable effect in constraining discretionary accrual manipulations, contradicted by that the result in table 6-12, which presented a negative but not significant role of such a separation.

Additionally, table 6-19 documented and supported the main findings regarding board size and board meetings. Moreover, busy directors are found to be less effective in enhancing the quality of financial reports by constraining discretionary accrual activities by reporting a significant positive association with discretionary accruals. In general. This result is similar to the main findings presented in table 6-12.

In terms of AC characteristics, and inconsistent with table 6-12 findings, the existence of an AC was statistically negatively correlated with discretionary accrual levels, providing supportive evidence to the agency theory that suggests a notable monitoring role of establishing a separate AC within a firm’s structure. Additionally, it is documented that independent members serving within ACs were negatively and significantly correlated with DAC. Active ACs that meet on a regular basis (at least for meetings) were found to be more effective in acting on behalf of a firm’s shareholders by reporting a negative and significant association with DAC.

Concerning ownership structure, the overall findings are consistent with the main findings. For instance, managers within family firms have taken advantage of this type of ownership by practicing accruals decisions. Additionally, a negative but not significant correlation between institutional ownership and DAC has been documented in table 6-19. Consistent with the main results mentioned in table 6-12, managerial and blockholder ownerships have had the upper monitoring role in constraining discretionary accrual behaviours.

Overall, the results explaining the behaviours of the monitoring tools within the industrial sector seem to be consistent with the agency theory propositions, which assumes that a sound structure of CG, combined with a good structure of concentrated ownership, will play a significant monitoring role in enhancing the overall monitoring system in a firm.

Table 6-19 Time-Fixed Effects Model (Manufacturing Industry)

DAC	Coefficient	Robust std. err	T-Value	P-Value
Constant	-1.087463	1.124346	-0.97	0.338
BORIND	-.109392	.1614866	-0.68	0.501
Non-Duality	-.0702763	.0396205	-1.77	0.082
BOASIZE	.0177743	.0494444	0.36	0.721
BOAMEET	-.0122578	.0060268	-2.03	0.047
DIRSHIP	.0879313	.0452408	1.94*	0.057
A/C Exists	-.0260763	.0406496	-0.64	0.524
A/C INDE	-.1421772	.0721893	-1.97*	0.054
A/C MEET	-.0066246	.0107058	-0.62	0.539
FAMILY	.0532958	.0170579	3.12***	0.003
INSTIT	-.0208154	.1138728	-0.18	0.856
MANAG	-.7052107	.3430438	-2.06**	0.045
BLOCK	-.6520321	.2491706	-2.62**	0.011
ROA	.1576429	.0794746	1.98*	0.052
FIRMSIZE	.1541714	.1482754	1.04	0.303
BIG-FOUR	-.0344984	.0505264	-0.68	0.498
LEVERAGE	-.1084587	.0875498	-1.24	0.221
Adj. R^2	The Adjusted R^2 for Time-Fixed Effects model is= 0.4630			
Time	Time Dummy Variable is Added to the Main Regression			
Number of Observations	238 Observation			
Asterisks Levels	((***= P-value< 0.01); (**=P-value<0.05); (*= P-value<0.10))			

6.5.3.2 Service Sector Findings

However, table 6-20 shows the main results obtained by applying fixed-effect regression over the service sector data. As the output table shows, independent members, non-duality directors and board meetings are inversely correlated with discretionary accrual manipulations. In contrast, board size and external directorships are positively correlated with a manager’s opportunistic behaviour. Indeed, none of the findings is significant compared with the manufacturing sector findings, which documented a significant correlation for both non-duality directors and external directorships.

Consistent with the main findings presented in table 6-12, the service sector documented a positive correlation between AC existence and discretionary accrual actions. Interestingly, both tables 6-12 & 6-20 contradict the agency theory suggestions that expected a significant monitoring role of such a committee. Indeed, such a result seems to be in line with the institutional theory that explains the root of such correlation. This theory claims that such an adoption of CG recommendations was as a response to governmental pressure to establish an AC. In addition, consistent with the main findings, both independent members and AC meetings are negatively correlated with discretionary accruals.

However, the service sector reveals different results regarding ownership structure and discretionary accrual actions. Family firms, institutional and blockholder ownership were found to contradict the agency theory suggestions by reporting a positive correlation between discretionary accruals and the different types of ownerships. However, managerial ownership is the only characteristic that had a positive monitoring role in constraining discretionary accruals.

The control variables group presents empirical evidence showing a positive correlation between ROA, big-four auditors and the leverage ratio and discretionary accrual levels estimated by the Modified Jones Model (1995). In contrast, firm size is the only variable that has a negative correlation compared with other control variables. Indeed, none of the selected control variables is significant at the level of 1% or 5%.

Table 6-20 Time-Fixed Effects Model Outputs (Service Sector)

DAC	Coefficient	Robust std. err	T-Value	P-Value
Constant	.1239404	.4602498	0.27	0.789
BORIND	-.1306804	.1850951	-0.71	0.484
Non-Duality	-.0178945	.0212574	-0.84	0.405
BOASIZE	.063638	.0452828	1.41	0.167
BOAMEET	-.0036979	.0026187	-1.41	0.165
DIRSHIP	.0079046	.0295724	0.27	0.791
A/C Exists	.0287866	.026413	1.09	0.282
A/C INDE	-.0332394	.0662995	-0.50	0.619
A/C MEET	-.0019382	.003808	-0.51	0.613
FAMILY	.0313499	.0139545	2.25**	0.027
INSTIT	.0036051	.0411542	0.09	0.931
MANAG	-.2939001	.2098165	-1.40	0.168
BLOCK	.0242503	.1094084	0.22	0.826
ROA	.0861603	.1893379	0.46	0.651
FIRMSIZE	-.0776486	.1136204	-0.68	0.498
BIG-FOUR	.0043532	.0276846	0.16	0.876
LEVERAGE	.0606873	.1216825	0.50	0.621
Adj. R^2	The Adjusted(within) R^2 for Time-Fixed Effects model is= 0.0787			
Time Dummies	Time Dummy Variable is Added to the Main Regression			
Number of Observations	224 Observation			
Asterisks Levels	((***= P-value< 0.01); (**=P-value<0.05); (*= P-value<0.10))			

To sum up this section, the main goal was to shed light on the main differences between the industrial and service sectors in terms of CG and ownership structure effectiveness in constraining EM through discretionary accruals, since each sector has unique operational and marketing policies that may affect the adoption of the CG code.

Tables 6-19 & 6-20 present a brief summary of the results, and both tables showed significant differences between the two sectors. For example, non-duality managers and the frequency of board meetings within the industrial sector were more effective and capable of constraining discretionary accrual activities compared with the service sectors. In addition, holding various external directorships has weakened the monitoring roles significantly within the industrial sector compared with the service sector.

The most interesting difference between the two sectors is represented by the effect of AC existence in a firm’s structure on the overall monitoring process.

Indeed, and in line with the main findings, the presence of AC within the service sector is positively correlated with discretionary accruals manipulations, and such a result supports institutional theory framework. In contrast, establishing a separate AC has achieved CG code at least statistically by reporting a negative but not significant correlation with discretionary accruals.

It is worth mentioning that the effect of the different types of ownership was more pronounced within the industrial sector. For instance, managerial, institutional and blockholder ownerships were negatively correlated with discretionary accruals, while the presence of institutional investors has weakened the overall monitoring role within the service sector. Indeed, it is found to be positively correlated with discretionary accruals.

In general, the industrial sector that represents approximately 47.8% seems to be more organized and qualified in adopting the CG code compared with the service sector. In other words, these further analyses showed that the industrial sector has recognised the importance of adopting the CG code better than the service sector, and that presents sufficient evidence for the regulators to focus on CG adoption within the service sector in order to enhance the quality of firms' financial reports.

6.6 Conclusion

To achieve the main goal of analysing the secondary data, the researcher has selected various internal CG mechanisms regarding board independence, AC characteristics and ownership structure to investigate the expected monitoring roles in constraining discretionary accruals phenomenon. The first set of variables regarding board independence reveals 3 significant results out of 5 main findings. Independent member's presence in board structure is shown to have an effective monitoring effect to enhance board decisions in terms of constraining EM issue. Board meetings were also found to affect the board of director's decisions, in which a significant negative correlation is documented based on the regression outputs. However, holding multiple seats on other firms' boards has reduced significantly the effectiveness of such busy members in reducing discretionary accruals levels in Jordan, contradicting by that the proposition introduced by the Resource Dependency theory which presented busy members as an effective tool to constrain accruals decisions.

In respect of the AC roles in constraining EM issue, the results showed that establishing an AC was correlated positively with EM levels. The logical and reasonable clarification of such a result may be that before activating CG code for listed firms in 2009, AC tasks and responsibilities were performed by accounting and finance departments (Shanikat and Abbadi, 2011). After establishing a separate AC, they are still less aware and conscious of their responsibilities. In other words, the Jordanian CG code focuses on establishing an AC as a separate delegated body, but it seems that Jordanian listed firms have adopted this part of the code just to show a good compliance level of CG adoption. Therefore, Jordanian regulators should emphasise on other significant characteristics to support AC monitoring roles. Furthermore, family members direct the majority of listed firms, in which introducing the AC as a separate body was as a response to governmental pressure to activate this committee(Meyer and Rowan, 1977). Consequentially, both characteristics (independent members and AC meetings) were negatively correlated with earnings management levels in Jordan.

In general, some results are consistent with the agency theory framework that suggests crucial monitoring roles of CG mechanisms to enhance financial reporting transparency and accuracy(Fama and Jensen, 1983). However, some results contradict agency theory propositions to follow other theories suggestions (i.e. institutional theory, stewardship theory and resources dependency theory).

Additionally, the researcher has carried out further tests to check the robustness of the main findings obtained. Indeed, the researcher selected Jones model (1991) and Kothari et al, 2005 model to estimate discretionary accruals levels. In general, both models showed consistent findings in comparison with the main findings with a slightly deviation in some variables. In addition, signed tests introduced the Jordanian market as an efficient market in constraining income-increasing accruals; since the monitoring tools were more significant and experienced in constraining such an issue. In contrast, none of the selected mechanisms behaved as a monitoring tool in restricting the opportunistic decisions over the income-decreasing actions. In general, the industrial sector appeared as an organized market in activating the monitoring roles of CG mechanism and ownership types in compare with the service sector, in which more efforts should be devoted to enhance the overall monitoring process in this sector.

To sum up, the concept of CG in Jordan is still in its introductory point and most listed firms lack the adequate level of experience to adopt CG recommendations efficiently, and to understand the significance of such a code to improve the Jordanian financial market. Hence, Jordanian regulators should devise an awareness campaign on different levels to shed light on the importance of activating such codes and legislate a logical code based on Jordanian settings.

Chapter 7: Interview and Questionnaire Analysis

7.1 Introduction

The main core of chapter six was to examine the relationships between a set of measurable mechanisms such as discretionary accruals, board independence, AC characteristics and ownership map variables. This part of the thesis focuses on providing further evidence to build a solid theoretical and methodological understanding of the research problem by concentrating on several factors that are less likely to be measured by secondary data. However, this part answers the three main questions in this thesis; first, to inquire more details about the effectiveness of internal CG mechanisms in constraining accruals issue. Second, to illustrate the main techniques used to practice accruals phenomenon in Jordan. Finally, to summarize the main obstacles face the monitoring tools in Jordan from being deterrent tools to enhance the proficiency of the Jordanian market.

It's worth mentioning that, this stand of analysis helped the researcher to understand some results extracted from the secondary data by getting in more depth various clarifications that made the researcher able to make valid conclusions. Indeed, CG is considered a new issue in Jordan, since JSC has legislated this code in 2009, therefore, the researcher has selected the participants carefully to capture the reliable and valid answers regarding the research problem. Hence, the structure of this chapter is as follows: 7.2 summarizes the main characteristics of the participants who participated in the survey and the interviews. Section 7.3 provides a general overview of the interview questions. Section 7.4 provides answers in terms of CG obstacles in Jordan. Section 7.5 sheds light on the main adopted approaches of accruals. However, section 7.6 and 7.7 provide answers on whether internal CG mechanisms constrained EM or not. Section 7.8 explains ownership structure roles in reducing the EM issue. Finally, section 7.9 provides a clear conclusion of this chapter.

7.2 Descriptive Statistics of Questionnaire and Semi-Structured Interview Respondents

7.2.1 Interviewees Descriptive Statistics

As the researcher mentioned previously, the interviews target four main categories of participants, which are board of directors' members, audit committee members, external auditors and governmental regulators. In this thesis, the researcher conducted twelve interviews with these categories. This diversity of the interview respondents' offered a good opportunity to investigate the effects of CG on EM phenomenon from different points of view. Such a diversity helped the researcher to acquire further information regarding unmeasurable issues in comparison with the secondary data analysis that only shows the correlation between variables without any justification to such results. The following table shows the main information of interview respondents with regard to their positions and length of field experience.

Table 7-1 General Information of Interviews Respondents

	Position	**Organization type**	**Experience Years**
1.	External Auditor	KPMG Office	7
2.	External Auditor	Deloitte Office	8
3.	External Auditor	Asia Office	10
4.	Audit Committee Member	Service Company	3
5.	Audit Committee Member	Industrial Company	2
6.	Board of Director Member	Industrial Company	8
7.	Governmental Employee	Amman Stock Exchange	10
8.	Governmental Employee	Amman Stock Exchange	8
9.	Governmental Employee	Securities Depositary Centre	12
10.	Governmental Employee	Securities Depositary Centre	5
11.	Board of Director Member	Service Company	4
12.	Board of Director Member	Industrial Company	5

As shown in the table, the researcher carried out three interviews with external auditors, four interviews with governmental employees, three interviews with board members and finally, two interviews with audit committee members. Table 7-1 shows more information regarding interviewees' experiences in their current positions.

7.2.2 Descriptive Statistics of Questionnaire participants.

As in the interviews, the questionnaire covers the same participants engaged in the interviews (i.e., board of director's members, AC members, external auditors and governmental departments).

Table 7-2 shows that 40.9% of the respondents were government employees. External auditors made up 27.0%, and the remaining either were audit committee members (13.1%) or board of directors members 19%. The abovementioned table shows that 43.1%

of the respondents held master's degrees. Those with a bachelor's degrees were only 40.9 %, and the remaining either had diplomas 5.8% or PhDs 10.2%.

7.3% of the respondents had less than one year of experience, and 28.5% had between one and five years of experience. Only 39.4% had between six to ten years of experience, and the others had either eleven to fifteen years of experience 20.4% or more than fifteen years of experience 4.4%. Most of the participants had no professional certifications 62.8%, while 13.1% had JCPAs, 3.6% had CPAs, 19% had CMAs and only 1.5% had other certifications.

Table 7-2 Descriptive Statistics of Questionnaire Respondents

	Frequency	Percentage (%)
Position		
Board of Directors	26	19.0
Audit Committee	18	13.1
External Auditor	37	27.0
Government Employee	56	40.9
Total	137	100.0
Qualifications		
Diploma	8	5.8
Bachelor	56	40.9
Master	59	43.1
PhD	14	10.2
Total	137	100.0
Experience		
1 or less	10	7.3
1 to 5	39	28.5
6 to 10	54	39.4
11 to 15	28	20.4
More than 15	6	4.4
Total	**137**	**100.0**
Certifications		
CPA	5	3.6
CMA	26	19.0
JCPA	18	13.1
NONE	86	62.8
other	2	1.5
Total	**137**	**100.0**

7.3 An Overview of the Semi-structured Interview Questions

The main goal of the interviews was to explore participants' perceptions regarding CG roles in constraining EM phenomenon estimated by discretionary accruals. The researcher aimed to acquire in-depth information concerning CG's ability to constrain EM in Jordan from different perspectives and measurements. Indeed, secondary data analysis and even the questionnaires cannot fully explain how CG mechanisms are adopted in the real world and determine the main obstacles that constrain CG code from being a deterrent monitoring tool to restrict EM in Jordan. Since some issues cannot be estimated statistically and therefore, adopting such an approach may remove any ambiguity in which, the researcher can draw a clear conclusion to evaluate CG effectiveness.

In other words, the researcher aimed to get more insight into EM and CG roles in Jordan from different perspectives. The following table presents in detail the main dimensions of the interviews questions.

Table 7-3 illustrates the main questions covered by the semi-structured interviews. These interviews cover five main dimensions. The first section explains the main obstacles that hinder listed firms from adopting CG code efficiently in Jordan. The second part aims to shed light on the main EM techniques that have been adopted widely by Jordanian managers during the last period.

However, the researcher tried to be specific as much as he can in preparing the interview's questions. For example, the third section investigates respondents' perceptions in terms of board of directors' characteristics and abilities to constrain EM issues. The researcher separated this dimension into five sub-questions in order to present a detailed answer concerning each mechanism. The researcher determined for the number of board meetings (at least four), the number of external directorships available for board members (five-directorships), independent members percentage (at least one-thierd) and the size of large boards (at least six). By doing that, the researcher tried to support his hypotheses formulated to test the secondary data since the previous standards were the main measurement criteria for these mechanisms. And this has helped the researcher to avoid some weaknesses in previous research that did not mention any estimation standards for some variables during their interviews, and thus, this has opened the door for receiving general answers from the interviewees (Alghamdi, 2012).

In section four, the researcher focuses on AC characteristics that may have a crucial role in constraining the EM phenomenon. In detail, the researcher explored participants' opinions by investigating the effects of three main mechanisms of ACs (i.e. the existence of audit committee and independent members). Similarly, the researcher has determined a specific set of measurements for each question to acquire valid answers to achieve this sub-goal.

The final section of this study tries to shed light on the interviewees' perceptions regarding ownership roles in enhancing financial report quality by constraining EM. This section covers four sub-questions, as mentioned in the previous table. In this vein, the researcher has used a minimum level of ownership by using 5% to evaluate ownership effectiveness in constraining accruals issue.

Table 7-3 Semi-structured Interviews Questions

Sectio	**Questions**
6.4	What are the main obstacles that constrain CG adoption in Jordan?
6.5	What are the main techniques that have been used by Jordanian managers?
6.6	Do the internal CG mechanisms in terms of Board of director characteristics constrain earnings management levels in Jordan?
6.6.1	Does the existence of independent members in the board of directors constrain earnings management (at least one-third)?
6.6.2	Does the board size (at least six) constrain earnings management?
6.6.3	Does the frequency of board meetings (at least six meeting) constrain earnings management?
6.6.4	Does the separation between chairperson and CEO positions constrain earnings management?
6.6.5	Do the multiple directorships of board's members (at least five) constrain earnings management?
6.7	Do the internal CG mechanisms in terms of audit committee characteristics constrain earnings management levels in Jordan?
6.7.1	Does the existence of audit committees constrain earnings management?
6.7.2	Does the existence of independent members within the audit committees constrain earnings management at (least one-third)?
6.8	Do the different types of ownership constrain earnings management in Jordan?
6.8.1	Does the existence of institutional ownership (who hold 5% at least) constrain earnings management?
6.8.2	Does the existence of family firms constrain earnings management?
6.8.3	Does the existence of managerial ownership (who hold 5% at least) constrain earnings management?
6.8.4	Does the existence of blockholder ownership (who hold 5% at least) constrain earnings management?

7.4 An Overview of Corporate Governance Obstacles in Jordan

The researcher started the interviews by exploring the participants' opinions about the main obstacles that weaken CG in constraining EM in Jordan. Based on twelve interviews, the researcher extracted various factors that may affect CG monitoring roles in Jordan. Therefore, in order to draw a clear picture of these factors, the researcher summarized these factors into three groups (themes): the political factor, social and cultural factor and employee's qualifications.

The researcher reached this classification to interpret interview findings based on the interviewees' perceptions regarding the importance of CG code in Jordan. As the researcher pointed out in Chapter Two, the Securities Depository Centre (SDC) has legislated CG code for listed companies on ASE in 2009. Therefore, such a phenomenon is considered extraneous and a new issue in Jordan. The Jordanian environment needs more time and effort to build a strong base of CG knowledge, which will lead to overcoming the weaknesses of this preliminary phase of adoption. Specifically, this part of the analysis aims to shed light on the respondents' views that explain the main obstacles that have observable effects on CG adoption in Jordan.

7.4.1 Social and Cultural Dimension

Previous studies have presented ample evidence that the adoption of various laws and codes is '*contagious*' where there are social and cultural connections between firms (Chiu et al., 2012). Even among the obstacles, some factors, such as social, cultural or institutional settings may affect or constrain the effective adoption of laws (Dyreng et al., 2012). Stulz and Williamson (2003); Man and Wong (2013) and Ball *et al.* (2000) claimed that social factors (institutional settings) are considered one of the main factors causing serious differences between countries in terms of new regulations adoption.

For instance, Desender et al. (2011) and Almasarwah (2015) found that such phenomena do not appear explicitly in any community; they appear under various pseudonyms or terms, which weakens researcher's ability to investigate their effects in terms of quantitative measurements. Hence, this part aims to explore deeply the roles of such factors in enhancing or hindering CG adoption in Jordan.

Based on the interviews, various participants recognized the effect of social and cultural factors as serious and should be taken in consideration in adopting any law or regulations. For example, an external auditor claimed that

> ***"In general, the lack of social equality and deterrent laws resulted in the creation of multiple negative social conventions like favouritism and tribalism. Believe me, in some cases people do need to use such tools to obtain their legitimate rights seized by others who possess more power. Believe me, these factors in my opinion, have a major role in determining not only the extent to which people accept the governance code, but also to any law legislated by the government"***

Another statement presented by a governmental employee supports previous findings (Guan and Pourjalali, 2010; Desender et al., 2011). He said,

> ***"The culture of the Arab society in general and that of the Jordanian in particular have a stronger influence than any procedures to be followed to apply any law including that of governance codes. One simple example of that is in the past few years there arose the phenomenon of shooting guns in social occasions, several laws were issued but the response rate was rather law. However, when the king delivered a speech relating to this phenomenon the percentage dropped 70%. Our major problem does not lie in laws but in the society way of thinking and their liability to accept any new laws".***

The previous two statements highlighted social and cultural effects as main factors that have infinite ways of affecting the overall financial market and the adoption of CG code in Jordan. Interestingly, another external auditor expressed his opinion by explaining the main roots of such issues in Jordan:

> ***Believe me, the reason behind all such phenomena is the consecutive Jordanian governments as it ingrained these practices as opposed to values of justice and equality that can build a prosperous Jordan. That's why nepotism and favouritism have a negative impact not only inside Amman stock market and corporate governance but also at every level. It is a problem in Jordan.***

Therefore, and after discussing these factors with the interviewees, the researcher was able to define two main factors in this category: the tribal system in Jordan and favouritism ‘Wasta’.

7.4.1.1 The Jordanian Tribal System

As the researcher mentioned in Chapter two (section 2.2), Jordan is a predominantly nomadic community in which the tribal heads have established solid roots with their families that instilled different thoughts and beliefs. In her study titled *Democracy and the Tribal System in Jordan: Tribalism as a Vehicle for Social Change*, Rowland (2009) found that tribal systems have important roles in settling conflicts between different parties. Furthermore, she said, the presence of the tribal system in some fields has a crucial effect in comparison with the legislated laws and regulations. In some cases, the tribal system in Jordan seems to have much more effect on the Jordanian community than compared with criminal laws (Almasarwah, 2015).

Therefore, the impacts of this system cannot be isolated in the financial market, specifically in adopting CG code in Jordan, since tribal members orient most of the listed firms on ASE. In this analysis, most of the interviewees considered ‘tribalism’ a frustrating factor that has a negative impact on the overall monitoring process in Jordan. In this vein, a governmental participant noted:

> ***“Generally speaking, tribalism has an impact on our most aspects of our life. Negative tribalism can be clearly observed in Amman Financial Market. For instance, the recruitment in our companies is based on relations rather the competence. Therefore, the availability of a group of people of the same tribal has the effect of impairing the monitoring role in the company. Tribalism is stronger to be honest. Some tribal members lack the minimum levels of financial knowledge to become accountants for example, and to my surprise, these members may become financial managers or head of auditing committees. For my point of view, we need decades before we get rid of negative tribalism”.***

In line with the previous statement, a **CEO,** for instance, linked tribal pressure and employee recruitment policy by claiming

"Tribal pressures exerted on Jordanian governments and on some companies in our country are great. Just imagine that they pressurize on both sectors (public and privet) to hire their children in the governments or in our firms, although these children lack the lowest level of education. I believe that the tribalism issue is the corner stone that slows down the expansion movement including the adoption of corporate governance code".

Furthermore, one external auditor working in one of the big-four auditing offices suggested that one of the big problems that faced them during the last period was 'unqualified members'. Indeed, in some regions in Jordan, firms' employees' lack the minimum adequate levels of accounting and auditing knowledge. He said,

"A good percentage of employees even the members of the board of directors still believe in the tribal system and existing traditions. They are still not aware enough to accept other laws and regulations such as CG code. As an external auditor, a CEO wondered why CG code is needed. Such laws he added are not strict. We can talk to the mistaken employee and sack him if does not respond".

However, a chairperson made the most poignant statement with regard to this issue:

"I agree that CG code has many advantages such as the employment of independent members, but where on earth could I find jobs for my brothers or cousins? It is truth that they do not have university certificates but they can learn the work system when employed. As an owner of the company, I have a moral obligation toward my tribal members so I have to employ them".

Based on the previously mentioned statements, it seems that the dominating monitoring mentality in Jordan is derived directly from the tribal system, which leads to the recruitment policy within the listed firms. Indeed, tribalism roots and thoughts are stronger than CG code and other laws in Jordan, since family firms still believe in tribalism as the only source for recruiting or controlling employees.

In general, this important conclusion is consistent with the findings of Kodila-Tedika and Asongu (2015), who documented a negative correlation between tribalism and financial market development based on a cross-country study between 2000 and 2012. Additionally, this conclusion is consistent with Alon (2005) and Almasarwah (2015) findings which claimed that, tribes' policies in general have weakened the development of Jordan, due to the fact that, these tribes were looking for achieving personal benefits instead of supporting the governmental initiatives that aimed to improve the Jordanian society since the inception of the Transjordan in 1921.

7.4.1.2 Favouritism (Wasta) in Jordan

In light of the previous findings, a logical output of the tribalism is favouritism. Favouritism means '*the practice of giving unfair preferential treatment to one person or group at the expense of another'* (Ponzo and Scoppa, 2011: p 79). The predictable scenario in Jordan concentrates on achieving social and tribal goals by recruiting their relatives or close friends into their firms, even if they are unqualified (Almasarwah, 2015).

With regard to favouritism's effects, most of the interviewees had similar points of view regarding the negative impact of nepotism on the Jordanian society in general, and adopting CG code specifically. For example, a head of an AC in a manufacturing company explicitly confirmed that

> ***"In my capacity as the head of an AC, I have to deal with company employees and ask them to do some accounting business. However, because of recruitment policy that is based on favouritism (or Wasta) they have been appointed by influential people in the company like the head of the board of directors or one of the biggest investors, their existence of course weakens our monitoring role".***

In addition to the previous statement, an external auditor (big-four auditor) stated that

> ***"One of the main concerns I faced during my filed visits was the general weakness of the employees working in the accounting departments and in the auditing divisions. These people were employed because of the policy of favouritism (or Wasta). So how do you expect from these companies to implement CG code in a way that constrains manipulations? There is no awareness of the importance of such a code as a result of the wrong basis of recruitment".***

One governmental employee mentioned his opinion on the effect of favouritism on CG code adoption in Jordan. He said,

> ***"As the head of commission which legislated the CG code in 2009, I would like to tell you that I was contacted by an indescribable number of influential people or leaders of top companies who were pushing hard so that the CG code does not get legislated. They simply wanted this as some of the code requirements, like independency, do directly affect their executive powers inside the boards of directors… Believe me, if we had agreed to follow what they wanted, the code would have never seen the light in this country. Some holding authoritative powers want this country to be theirs. They simply regard it as their own farm".***

It seems that the Jordanian people rely on favouritism to organize their social matters. For example, they use it to secure permanent job positions for unqualified staff. Such a situation weakens the monitoring process in Jordan, specifically CG mechanisms. The Integrity and Anti-Corruption Commission (IACC) considers tribalism and favouritism as the main causes of firms' failures during the last twenty years and feels they should be constrained (Loewe *et al.*, 2007; Almasarwah, 2015).

In summary, the previous statements presented nepotism and the tribal system as the most significant factors that played an inverse role in adopting CG code efficiently (Almasarwah, 2015). The statements seem to indicate that Wasta and tribalism in Jordan are the main causes of accounting infringements, whether it was legal or illegal practices.

Adopting mixed-methodology offers new insights for exploring CG adoption in Jordan, since some issues, such as tribalism and favouritism, are non-measurable issues and the only approach to investigate their effects is through interviews.

7.4.2 Political Factors (Arab Spring)

Jordan is an Islamic and Arabic country that directly correlates with other Islamic countries in economic, social and political goals. However, in 2011, Jordan and the Middle-East region have suffered from the negative effects of local uprisings that took place in Syria, Iraq, and Libya and among many other areas (Beck and Hüser, 2015).

In fact, the effect of the Arab Spring was pronounced in all life matters, since the Jordanian governments try to present Jordan as a main actor within the Middle-East region.

The economic effects are the most important factor in regard to the scope of this study. The researcher aims to reflect the effect of the Arab Spring on the level of constraining EM phenomena and adopting CG code. In reflection, a board member in the industrial sector provided the following insight:

> ***"Frankly speaking, as a pharmaceutical company, we used to export most of our medicine to Egypt and Libya. Our sales to these two countries have dropped to more than a half in the recent years. This has caused a considerable number of employees to be made redundant, and the reason is that there is no market for our products since the local market is not enough to promote our all products. Well, my concern is to increase my sales, find new markets for my products in order to maintain my image in relation to my shareholders. Indeed, it is not worth it applying CG code whose purpose is not well defend. As long as I have a sales problem my concentration is centred on sale and the status of the company in the market".***

The secretary general/commissioner of JSC explained the main effects of the Arab Spring on the Jordanian market:

> ***"Arab Spring has had an impact on the Jordanian market as a whole. Most companies' sales have dropped so much that more than (70%) of the market disclosed financial losses on their financial statements during 2012, 2013 and 2014 because companies had a general feelings that Jordan would be a park of the Arab spring sooner or later. Therefore, we, as a commission, and in corporation with Amman Stock Exchange, we ignored the disclosures related to CG code because the market witnessed a period of acute recession. It was impossible for us to make companies implement CG code. Currently, however, there is a real intention to clamp down on the implementation of the code via the 2017 new blueprint".***

Significantly, the Arab Spring affects Jordan directly and indirectly, and this unstable situation caused significant pressure on the regulators to be more flexible with regard to CG adoption, since most of the Jordanian firms are affected negatively by this factor. The regulators in Jordan did not wish to increase tensions with listed companies. This conservative position is attributed to regulators desire to ensure financial and political stability in the country. However, it seems that, listed firms in Jordan have exploited this situation to practice their discretion over firms' financial reports in order to delay the adoption of CG code in Jordan.

In conclusion, despite the interviewees' positions, there was a consensus that the Arab Spring was the main political factor that had a significant effect on adopting CG efficiently so that EM issues can be constrained.

7.4.3 Human Capital Characteristics

The third observable theme in this analysis covers human capital characteristics. There was a general agreement regarding the effects of human capital characteristics on the level of adopting CG code efficiently. This theme explains human capital roles in enhancing the overall performance and monitoring processes in the firms.

Some scholars consider human capital a competitive weapon that could be developed to support a firm's productivity and to guarantee its survival (Marimuthu et al., 2009). To reach such a competitive position, firms should devote resources to building qualified, experienced, knowledgeable and entrepreneurial teams in order to protect their assets and shareholders' interests.

Certainly, human capital plays an important role in determining how firms adopt new regulation or codes, since qualified and open-minded employees facilitate the adoption of new regulations such as CG codes. For instance, various studies found that qualified employees played an important role in enhancing a firm's performance (Agarwala, 2003; Selvarajan et al., 2007).

Furthermore, Doms et al. (2010) reported that, human capital inputs (educated staff) were more powerful in enhancing a corporation's performance in comparison with other less-educated employees. Their results show that the likelihood of engaging in opportunistic behaviours is less within the firms that have highly educated staff in comparison with other institutions. Different participants explained the importance of this factor in adopting CG code in Jordan.

A good example that illustrates this issue was spoken by an AC member:

> ***"The probability of hiring qualified and well-educated employees is very low in Jordan for many reasons. The usage of old materials, the presence of weak privet universities that look just for profits and most importantly, the educational system in Jordan is still un-updated to introduce new dimensions (e.g. corporate governance or field courses) to such system to develop students qualifications and enhance their awareness levels toward new issues such as CG".***

Another external auditor stated,

> ***"Believe me; throughout my experience as an external auditor, I noticed that most the accountants and auditors in different companies lack the most important basics necessary for their accounting roles, owing to the weak universities they had graduated from. Most students nowadays depend on favouritism (or Wasta) for employment and not for developing their accounting knowledge. Even during their university education, they are relaying on tribalism and Wasta to get high marks".***

Some participants mentioned the effects of personal features such as mentality, beliefs and thoughts on enhancing or challenging the continuity of the companies. In this regard, a study done by Wijewardena et al. (2008) supports the previous argument by reporting a noticeable role of creative employees in enhancing companies' financial position and monitoring processes. During the interviews, some participants stressed the effect of this issue on CG adoption in Jordan. For example, a governmental employee said,

> ***"In general, the mentality of the Jordanian employee is unaware of the role required of him. He views the company as a day rest place. Believe me; a Jordanian employee would like to have an office as if he were a company manager. In general, the employee's mentality is confined to the routine work. It is not open to accept new regulations such as CG code".***

Another external auditor said,

> ***Employees are, in general, like closed boxes… meaning that they are not inclined to learn anything new; not only when it comes to the CG code but also to any new developments that advance their institutions. This is due to their fear of losing their jobs as a result of endorsing such codes. In general, the mentality of Jordanian employees is like a closed box when it comes to putting the corporate governance code into effect … They do not want to change as long as work is moving on.***

The previously mentioned statements illustrated the participants' perceptions regarding the effects of human capital on supporting CG adoption in Jordan. It seems that a good educational certificate offers a solid knowledge base for understanding managers' opportunistic behaviours, allowing the certificate holders to enhance firms' financial positions by constraining opportunistic decisions (Agarwala, 2003; Selvarajan *et al.*, 2007; Almasarwah, 2015). Additionally, the mentality of Jordanian managers came into focus as one of the main obstacles that affect CG adoption in Jordan, since they still adhere to the traditional management style and are not open to adopting CG code and other laws. These conclusions are in line with Almasarwah (2015) who found similar findings regarding the importance of employees' characteristics in enhancing laws and regulations adoption in Jordan.

7.5 What Are the Main Adopted Techniques that have been used by Jordanian Managers?

Stakeholders depend on earnings figures disclosed in the financial reports(Elvin and Hamid, 2016). Thus, the integrity and transparency of financial reports have attracted various parties' attention in order to guarantee error-free financial statements(Man and Wong, 2013). However, the literature review chapter summarized some of these techniques that could be applied by managers to alter firms' earnings. Some of these approaches related to the accounting policies and estimations methods. This can be done through manipulating accruals figures (Chen and Zhang, 2014; Abbadi *et al.*, 2016). Under the second approach, mangers may be inclined to adopt more risky approaches such as creating real transactions during the year to report a specific result (Zgarni *et al.*, 2014; Talbi *et al.*, 2015). However, opportunistic managers may change the presentations of the financial reports to disclose specific information or to hide another stand (Ronen and Yaari, 2008; Jones, 2011). Indeed, chapter six (secondary data analysis) provided several evidence that the Jordanian firms have engaged in earnings management techniques statistically, this part aims to determine the most common used techniques to alter firms' accruals specifically, since previous studies in Jordan carried by Jarar (2008); Halabi (2009); Qudah (2011) focused on general techniques without any concentrating for example on accruals techniques or real-earnings management techniques. Therefore, this part is considered as a bridge to the previous studies to shed light on accruals techniques in which the uncertainty of this section can be explained effectively.

In this regard, and among the targeted groups, external auditors and regulators have mentioned various examples concerning accruals techniques. The answers of board and AC members were conservative and did not give clear indications about the adopted techniques. For instance, an external auditor indicated that:

> ***"As an external auditor, I noticed that Jordanian company's used some gaps included in accounting by exerting influence on the depreciation rates and influence on the useful life of fixed assets, on the inventory estimation values and on the sales discount policy. From my point of view, these are the most important practices adopted by the Jordanian companies in order to affects the value of earnings disclosed".***

A governmental employee who works in ASE explains that

> ***Based on my experience, a considerable number of the Jordanian companies are inclined to capitalize some expense instead of recognizing these amounts as operational or general expense.***

Additionally, a qualified external auditor simplified this section by saying the following:

> ***"Based on my role as an auditor, I see that most corporations resort to changing the fixed assets depreciation policies and ways of estimating inventory, which both have a direct impact on the income and consecutively on the value of profits".***

In pursuit of exploring the participants' perceptions regarding accruals techniques, the researcher garnered various examples from the interviewees that explain these techniques. According to these statements, Jordanian managers preferred affecting revenue and expenses amounts in general to alter firms' earnings figures. And this conclusion supports Qudah (2011) and Halabi (2009) finding, since they found that, income statements were the main targets of Jordanian managers to alter firms' accruals number. Additionally, some of these techniques are altering depreciation policies, altering inventory estimation methods, and in some cases, they devoted their opportunistic behaviours to capitalizing on some expenses rather than recognizing them as operational expenses.

These results are in line with some previous investigations carried out within the emerging market contexts, such as Al-khabash and Al-Thuneibat (2008); Qudah (2011) Halabi (2009); Kamel and Elbanna (2009); Elgari (2010); Alghamdi (2012) studies, which found these techniques to be the most frequently adopted techniques to alter firms' earnings in Jordan, Saudi Arabia and Egypt, respectively. Indeed, this conclusion is very important, since emerging markets have used accruals techniques extensively instead of creating real-transactions to report specific target of profits, and that means, they are aware enough about the negative consequence of such an approach on firma cash flow.

7.5.1 Questionnaire and ANOVA Findings Regarding Earnings Management Techniques

7.5.1.1 Questionnaire Findings Regarding Earnings Management Techniques

The researcher distributed a list of the expected accruals techniques that could be adopted by Jordanian managers to the targeted respondents. The researcher has prepared this section based on different studies that have explored these techniques in general, with more concentrate on accruals techniques (Jarar, 2008; Ronen and Yaari, 2008; Halabi, 2009; Elgari, 2010; Jones, 2011; Qudah, 2011; Alghamdi, 2012). Table 7-4 shows participants' answers regarding this section.

Based on table 7-4, the researcher found that most of the questionnaire responses were concentrate on three approaches. In detail, the most adopted techniques were as follows: the respondents perceived 'Altering depreciation policy (such as altering useful life or salvage value amounts)' as the most important technique to practice EM (mean = 3.708) while they believed that 'Altering accounts receivable' (such as estimation basis for doubtful accounts) was the second choice for Jordanian managers to alter earnings figures (mean = 3.659). 'Altering inventory amounts by changing valuation methods' (FIFO and AVCO) (mean= 3.538) was their third choice.

Furthermore, table 7-4 offers a moderate view from the respondents, who arranged the following techniques as secondary based on their answers: Altering loan interest classifications (mean=2.978), Inflating sales amounts by altering credit notes (mean= 2.817), Capitalizing some expenses rather than recognising them as expenses (mean= 2.817), Altering the amount of some expenses (such as R & D and maintenance allowances) (mean= 2.715) and Recognizing assets sales (one-off sales) amounts as operating revenue to improve operating income (mean= 2.554).

Additionally, the following group of techniques received less attention from the Jordanian managers, according to the survey' answers. With an average of (2.386), the 'altering bad and doubtful debts provisions' technique ranked 9 among the selected techniques. 'Reclassifying some cash flow to affect the operational cash flow amount' averaged (mean = 2.357). 'Altering fixed assets sales amounts' averaged (mean = 2.211) and, as a less frequently used technique, 'writing off firms' costs to alter firms' performances' averaged (mean = 2.204). In general, the respondents' answers were in line with the following studies (Al-khabash and Al-Thuneibat, 2008; Halabi, 2009; Kamel and Elbanna, 2009; Elgari, 2010; Qudah, 2011; Alghamdi, 2012; Rahman *et al.*, 2013; Yadav, 2013).

To sum up, the main purpose of this part was to shed light on the most adopted accruals techniques of Jordanian managers to alter firms' earnings according to the participants' perceptions. To achieve this sub-goal, the researcher prepared a separate part in the distributed questionnaire which listed suggested choices of accruals techniques. Both interviews and the self-administrated questionnaires presented similar results to explain managers' opportunistic behaviours in reporting three main techniques as Jordanian managers' ways of altering firms' earnings.

Table 7-4 Sub-Groups Perceptions Regarding Earnings Management Techniques

	Statements	Agreement Percentage					Overall Average	Rank	SD
		1	2	3	4	5			
1	Altering inventory amounts by changing valuation methods (FIFO and AVCO).	4.4	23.4	1.5	65.7	5.1	3.538	3	1.042
2	Altering account receivable estimation basis for doubtful accounts.	5.1	22.6	1.5	62.8	8	3.659	2	1.084
3	Altering depreciation policy such as (altering useful life or salvage value.	5.8	19.7	2.9	40.9	30.7	3.708	1	1.255
4	Altering the amount of some expenses such as (R & D and maintenance allowances).	8.8	45.3	13.1	31.4	1.5	2.715	7	1.049
5	Altering loan interest classifications.	14.6	59.9	12.4	13.1	1.5	2.978	4	.8619
6	Altering revenue amounts by premature recognition of sales transactions.	13.9	33.6	9.5	38	5.1	2.357	10	1.2115
7	Inflating sales amount by altering credit notes.	16.1	24.1	8	49.6	2.2	2.817	5	1.2155
8	Reclassifying some cash flows to affect the operational cash flow amount.	16.1	50.4	16.8	15.3	1.5	2.357	10	.9751
9	Capitalizing some expenses rather than recognising it as expenses.	13.9	35.8	7.3	40.9	2.2	2.817	5	1.1770
10	Recognizing assets sales (one off sales) amounts as operating revenue to improve operating income.	14.6	45.3	10.2	29.9	0	2.554	8	1.0704
11	Writing off firms costs to alter firm performance.	24.1	44.5	19	11.7	.7	2.204	13	.9635
12	Altering bad and doubtful debts provisions.	22.6	42.3	8.8	26.3	0	2.386	9	1.1064
13	Altering fixed assets sales amounts.	25.5	43.8	14.6	16.1	0	2.211	12	1.003
	1=Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree And 5=Strongly Agree Likert Scale Values								

7.5.1.2 ANOVA Findings Regarding Earnings Management Techniques

The Analysis of Variance test (ANOVA) is used in general to determine if there are noticeable differences between groups' means (three or more groups) in terms of a specific issue (Hair et al., 2010; Pallant, 2013). The researcher used the Analysis of Variance (ANOVA) test to explore groups' perceptions regarding EM techniques.

Table 7-5 shows that there are crucial differences among the pre-selected participants in terms of the most frequently used techniques for EM in Jordan. Indeed, that presents statistical evidence that at least one group out of the four recognized the usage of accruals techniques differently in comparison with other groups.

However, according to F value (67.800, Sig=000) reported in table 7-5, the null hypothesis, which assumes that '*the Population means are equal*', is rejected (Pallant, 2013:249), and this implies that there is at least one group responded differently in term of accruals techniques.

Table 7-5 ANOVA Test Regarding Earnings Management Techniques

Item	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	40.455	3	13.485	67.800	**.000**
Within Groups	26.453	133	.199		
Total	66.908	136			

However, the main drawback of the ANOVA test is its inability to locate or identify the differing group among the groups covered in the study. For this reason, Pallant (2013) suggests a Post-Hoc test be carried out to determine the differing group.

Tables 7-6 and 7-7 show that there are noticeable differences among the respondents concerning accruals techniques. It is worth noting that both external auditors and governmental employees had different perceptions in comparison with board members and audit committee members, and this could be attributed to the fact that they have more independence, freedom and aware to do their tasks and to express their perceptions.

Additionally, both groups look more aware of and qualified to report on this issue, since they are directly connected with real cases as external auditors and regulators who have superior and advanced levels of experience in accounting standards and how they are legislated in Jordan.

Furthermore, board of directors and audit committee members might recognize accruals techniques as legal and accepted practices in comparison with external auditors and governmental regulators, who hired qualified auditors and adopted the most modern laws and codes to constrain such practices, protect minority interests and enhance financial reporting quality. Table 7-7 provides more detail about these differences among the groups.

In general, external auditing offices devote more financial and human resources to continuously building the necessary knowledge and skills required for their employees to understand accruals practices (Al-khabash and Al-Thuneibat, 2008; Jarar, 2008; Kassem, 2012); therefore, they have a different monitoring position than the internal players such as board members and audit committee members.

Table 7-6 Pooled Post-Hoc Test Regarding EM Techniques

(I)Position	(J) Position	Mean Difference (I-J)	Std. Error	Sig.
Board Member	A/C Member	-.24162	.13675	.294
	Ext. Auditor	-1.05901*	.11413	.000
	Gov. Employee	-1.33960*	.10584	.000
A/C Member	Board Member	.24162	.13675	.294
	Ext. Auditor	-.81739*	.12816	.000
	Gov. Employee	-1.09799*	.12084	.000
External Auditors	Board Member	1.05901*	.11413	.000
	A/C Member	.81739*	.12816	.000
	Gov. Employee	-.28059*	.09448	.018
Governmental Employees	Board Member	1.33960*	.10584	.000
	A/C Member	1.09799*	.12084	.000
	Ext. Auditor	.28059*	.09448	.018

***. The mean difference is significant at the 0.05 level.**

Table 7-7 Participants Descriptive Statistics (Mean and Post-Hoc Test) Regarding EM Techniques

Statements	Mean				Post Hoc Test			
	B. Director (1)	A/C member (2)	Ext. Auditor (3)	Gov. Employee (4)	B. Director Sig with	A/C member Sig with	Ext. Auditor Sig with	Gov. Employee Sig with
1. Altering inventory amounts by changing valuation methods (FIFO and AVCO).	2.500	3.1667	3.8919	3.6607	3 &4	3	1&2	1
2. Altering A/R estimation basis for doubtful accounts.	2.4615	3.1667	3.9189	3.7143	3&4	3	1&2	1
3. Altering depreciation policy such as (altering useful life or salvage value amounts).	2.4615	3.500	4.0811	4.1071	2,3&4	1	1	1
4. Altering the amount of some expenses such as (R & D and maintenance allowances).	2.0385	2.111	2.9730	3.0536	3&4	3&4	1&2	1&2
5. Altering loan interest classifications.	1.7692	1.6111	2.1351	2.7321	4	4	4	1,2&3
6. Altering revenue by premature recognition of sales	1.6538	1.8333	3.4595	3.3750	3&4	3&4	1&2	1&2
7. Inflating sales amount by altering credit notes.	1.6538	2.3889	2.3514	3.5357	3&4	3&4	1&2	1&2
8. Reclassifying some cash flows to affect the operational cash flow amount.	1.8077	1.7222	2.4054	2.7857	3&4	3&4	1&2	1&2
9. Capitalizing expenses rather than recognising it as expenses.	1.8462	1.8889	2.9459	3.4821	3&4	3&4	1,2&4	1,2&3
10. Recognizing assets sales (one off sales)	1.6923	1.7778	2.7568	3.0714	3&4	3&4	1&2	1&2
11. Writing off firms costs to alter firm performance.	1.5769	1.5000	2.3243	2.6429	3&4	4	1&2	1&2
12. Altering bad and doubtful debts provisions.	1.6538	1.500	2.2703	3.0893	4	4	1,2&4	1,2,3
13. Altering fixed assets sales amounts.	1.5769	1.667	1.9459	2.8571	4	4	4	1,2,3
1=Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree And 5=Strongly Agree Likert Scale Values								

In summary, the main results of this section introduced three main techniques as the most attractive techniques to Jordanian managers to practice their discretion over financial reports. These techniques are directly related to fixed assets depreciation policy, account receivable estimation basis for doubtful accounts and, finally, altering inventory amounts by changing valuation methods (FIFO and AVCO).

Notably, the Post-Hoc test showed important differences between the four groups of participants regarding the frequency of using accruals techniques in Jordan. In general, government employees and external auditors recognized these techniques differently in comparison to other sub-groups.

The face-to-face interviews provide further evidence by reporting similar conclusions in terms of accruals approaches. The obtained results are in line with the previous investigations of Elgari (2010); Qudah (2011); Alghamdi (2012); Rahman *et al.* (2013).

7.6 Do the Internal CG mechanisms Regarding Board of Directors and AC constrain EM levels in Jordan?

Chapter six presented various findings that showed CG mechanisms as deterrent tools to protect shareholders rights, from a statistical point of view. For example, the main findings presented independent members as knowledgeable and experienced members to minimise the effects of agency problem. However, since the CG code in Jordan was established in 2009 and since a phenomenon needs more time to be understood accurately, the researcher was motivated to ask several groups about their opinions' regarding the effectiveness of CG mechanisms in constraining EM issue. This part concentrates mainly on boards of directors' characteristics and ACs' characteristics. Boards of directors' characteristics include the introduction of independent members to board structures, non-duality managers, board meetings, board sizes and finally, the effect of external directorships on board monitoring roles. On the other hand, AC effectiveness will be evaluated via three main mechanisms: the existence of AC, AC independence and active AC.

However, during the interviews, there was a consensus among the interviewees that CG in Jordan is a modern phenomenon and that the Jordanian market needs more time and workshops awareness to understand CG issue. In this vein, a CEO said:

“The idea of the CG in Jordan is an unprecedented one. We as companies, we need some time to understand all the requirements of CG code such as independence and sub-committees. For example, independence concept is difficult to apply in our country for several reasons. In this case, there must be awareness campaigns on the part of the regulatory parties, providing detailed explanations of certain points so that companies could actually implement this code.

Another opinion stated by an external auditor supported the previous argument:

“Through my work, I noticed that most of companies lack the basic information about CG requirements in Jordan. In addition, the reason is that it is a new issue that has not been fully explained by the monitoring commissions. Furthermore, there is no awareness as to the importance of CG code and its role in constraining mangers opportunistic behaviours. Moreover, most companies do not believe in the importance of this code owing to social, economic and political factors”.

Additionally, another external auditor said:

“*Believe me, until this moment, some firms they don’t know how to disclose CG information, instead, they asked external offices to prepare this chapter and later they combined this chapter in the annual reports*”.

From the previous statements, it can be noticed that, there is a general weaknesses in considering CG code as an important law to organize the financial market in Jordan. This may be attributed to the fact that, Jordanian regulators have accelerated the process of enacting CG without considering the importance of preparing a solid seat for such a code.

7.6.1 Board of Directors Monitoring Mechanisms and Their Ability to Constrain Earnings Management

Agency theory suggests that the availability of a sound structure of board of directors supported by specific mechanisms of CG is expected to align the interests between firms’ agents and principals, which will lead to a reduction of agency problems (Fama and Jensen, 1983; Khalil and Ozkan, 2016).

However, some scholars adopted institutional theory's suggestion that listed firms may be forced to adopt CG recommendations since these codes and other laws have been legislated by the local governments (Meyer and Rowan, 1977). Based on these two points of view, and by considering the effects of other theories (i.e. resource dependency theory and stewardship theory), the following sub-sections will discuss the questionnaire and interviews findings in terms of board of director's characteristics, to draw a clear picture of board effectiveness in Jordan.

7.6.1.1 Does the Existence of Independent Members (at least one-third) in Boards of Directors Constrain Earnings Management?

To illustrate the effects of such members within the Jordanian context, the researcher asked all the participants about the feasibility of introducing independent members to serve as diligent members on behalf of firms' shareholders. All the interviewees agreed on many issues that have impaired board independence and its role in constraining accruals in Jordan. In general, most of these considerations related directly to nepotism, tribalism and awareness levels.

In terms of board independency, an external auditor who works in a big-four auditing office emphasized that

> ***"The major problem that impedes the existence of independent members, in my opinion is the tribal environment, where relations are based on tribalism or personal considerations. In such an environment, it is very difficult to find independent members. The reason is that the recruitment basis mainly depends on tribalism and personal relation rather than on proficiency".***

Additionally, a member of an audit committee said that

> ***"The absence of laws necessary to protect the independent members from the domination of board of director's has led to the weakness of their monitoring role. Any member can be classified as being independent, his independence on mere ink on paper and not in reality.***

In reality, a member has to submit to the orders of board of directors; otherwise, he will be sacked and replaced with someone who is related to board of directors".

Commenting on the lack of laws that protect independent member roles, a governmental employee in SDC claimed that:

"We noticed that the problem lies in the point of independence not on the proliferation of laws. Even the parliament, which is the supreme legislative authority, is never independent. In short, tribal, political and economic relations paly a considerable role in the implementation of CG. The independence problem actually depends on the shareholders awareness of the importance of the independent members and their role in constraining accounting violations".

Another external auditor emphasized that

"During my investigations of several family firms, I noticed that there is a conflict of opinions between the founder generation of the firm and the youth generation in relation to the requirement of independent members. The first generation still adopts the traditional way of running the firm that is based on centralism in decision-making. One board director literally said why I should employ people to monitor me. The firm is doing well without them. On the other hand, the youth generation is convinced of the independent member's role but they do not have any authority within the family firms".

In a contradictory view, the majority of the interviewees presented statements that refuted agency theory suggestion by introducing independent members as important players in mitigating some of the agency problem consequences. Their statements in general support the institutional theory proposition, in which introducing such members within the Jordanian context was done as a form of response to regulator pressures to adopt such a code to avoid any conflict with JSC (Meyer and Rowan, 1977). Furthermore, the absence of the active inspections actions by regulators due to different factors has reduced the effectiveness of activating the independence requirement in Jordan.

In spite of this, the secondary data table (see table 6-12, page 175) shows a contradictory conclusion regarding the effectiveness of introducing independent members to serve as loyal and experienced members. Indeed, table 6-12 presents a significant negative correlation between discretionary accrual levels and the proportion of independent members in firms' boards.

Interestingly, this conclusion is in line with Ianniello (2015); Khalil and Ozkan (2016) and González and García-Meca (2014) findings that the independence requirement in Italy, Egypt and Spain is close to a formality, rather than focusing on its practical effect. Therefore, they failed to document a significant monitoring effect for such members.

7.6.1.2 Does Board Size (at least six) Constrain Earnings Management?

With respect to board size, agency theory suggests that larger boards provide more experienced and qualified members, since such boards are expected to hire more independent members; hence, the overall monitoring process is enhanced (Fama and Jensen, 1983; Jamaludin *et al.*, 2015).

During the interviews, the participants addressed some factors that may affect the expected monitoring roles of the board size. They mentioned, for example, type of sector and firm size and ownership map within the listed firms.

For instance, a governmental employee stated that

> ***"This is a controversial issue. In general, however, there are several factors that play an important role in determining the size of the board of directors like the sector, firms' size or ownership diversity. From my experience, there are manipulations that can be easily observed in companies, which have relatively small boards (5-6) members. I do believe that board of directors should consist of between (9-10) members in the industrial sector and between (7-8) members in service firms".***

In addition, an external auditor expressed his opinion with the following statement:

> ***"In my opinion, the more complicated the sector is, the more members the board of directors need. Honestly, in Jordan relatively small and middle-sized firm's recruitment policy is based on tribalism and***

> ***personal relations rather than proficiency. The reason is that board of directors still dominates the accounting and financial policies of the company as well as any essential matters.”***

However, a CEO in a service firm stated that

> ***“Being a family firm, we have moral obligations forwards our tribes. This perception has become an integral part of the society way of thinking. Based on my experience, I would prefer to have a small board 5-6 members who are well qualified to run the firm rather than have a 10-members board, half of them being employed in response to tribal or social pressures. I am against tribalism, but unfortunately, tribalism is part of society’s mentalities. One hand cannot clap”.***

However, most of the interviewees’ answers stressed the importance of having large boards within ASE, taking into account the impacts of some factors that hinder the formation of boards of directors in Jordan, such as personal relations and tribalism. Interestingly, they mentioned the effect of the ‘invisible power’, in which family firms’ members have the upper hand in structuring firms’ boards.

Significantly, the previous conclusion regarding the board’s size contradicts the main finding presented in table 6-12 (see page 175), which introduced the notion of large boards as weak boards for constraining discretionary accrual techniques, since a positive correlation between board size and earnings management has been documented.

In general, their statements are in line with a stand of previous studies, which suggests that dominant groups such as family members may introduce hegemonic practices over small boards, which may lead to engaging in opportunistic behaviours (Mallin, 2011). This result seems to be in line with previous studies, such as Aygun *et al.* (2014); Jamaludin *et al.* (2015); Essa *et al.* (2016) who found a negative association between EM and large boards.

7.6.1.3 Does the Frequency of Board Meetings (at least six) Constrain Earnings Management?

Another important mechanism for evaluating board industriousness levels is board meetings. More active boards showed flexibility in devoting more time and effort to taking their monitoring responsibilities seriously (Juhmani, 2017). To investigate this issue, the researcher asked the covered respondents the above question in order to have clear findings to challenge or to support the agency theory perspective in which active boards have significant monitoring roles in constraining managers' opportunistic behaviours.

For instance, an external auditor pointed this out:

> ***"The meetings concept needs more time to be understood efficiently by board's members, since the majority of those members are not aware enough of the importance of such meetings in enhancing the overall monitoring process. Indeed, some of those members come to these meetings without any preparations of the meetings discussion points. At the end, the CEO will decide on behalf of them".***

From a different point of view, a governmental employee expressed this opinion:

> ***"During the past years, we noticed that, the board of director's meetings were routine ones, at the end of each meeting the majority voted according to the majority's decisions. In 2013 and 2014 however, there were different attitudes, most of the board members participated in discussion and put forward suggestions to ensure the continuity of the company.***

Interestingly, a board member had a different opinion. This was expected since such a group of participants is directly engaged in attending frequent meetings to enhance the control process in their firms, he clearly said:

> ***"In my point of view, meetings are very suitable for discussion the company's affairs. In our meetings, discussion is open to all members unconditionally. On the contrary, I am certain that the members of the board seek the company's interests. Therefore, I welcome any suggestions made during the meetings. I approve of increasing the number of meetings because of their important role if they stop to play their routine and traditional role".***

The above statements, especially from external auditors and governmental employees, disprove the agency theory expectation which claims that active boards may play a noticeable role in improving the overall monitoring process. On the other hand, active boards that hold frequent meetings were more effective and experienced with imposing constraining discretionary accruals techniques in Jordan, based on our analysis of a set of secondary data in Jordan (see Table 6-12, page 175).

Indeed, such a result contradicts previous literature, such as González and García-Meca (2014); Zgarni *et al.* (2014); Halaoua *et al.* (2017), which found a significant role of active boards in constraining accruals manipulations.

It seems that in Jordan, due to different social, political and economic factors, this issue still needs more time and effort to make certain that board members are independent and can support their existence in firms' boards as active members during meetings.

7.6.1.4 Does the Separation between Chairperson and CEO Positions Constrain Earnings Management?

Previous studies present this mechanism as one of the most important tools to enhance board independence. This requirement offers a great opportunity to break down the centralization and power of the chair position (Alghamdi, 2012). In other words, the presence of a diverse board with separated positions is expected to align the interests between a firm's agents and principals, so that the integrity and transparency of the annual reports are enhanced (Mallin, 2011; Iqbal *et al.*, 2015).

To shed light on this matter, the researcher talked about this mechanism with an experienced external auditor, and his opinion was:

> ***"I am with the separation of CEO and chairperson positions and I strongly support this. I dare say that, the percentage of commitment to this requirement is relatively high in Jordan, however, in most cases, the process of separation is still mere ink on paper, since most of the companies have appointed people as CEO based on personal considerations. We do need a comprehensive awareness campaign at the level of ASE in order to change the traditional way of recruitment and management".***

During the interviews, the researcher asked AC member about the effectiveness of having non-duality managers, and he said:

> ***"To guarantee the survival of our firms as an AC, we support the separation, especially if it is crowned with the appointment of people who are not related to the chairman of the board of directors or to influential stakeholders in the company. Just in this case we can do our monitoring roles neutrally and safely without any pressures on the part of the chairman".***

It is worthwhile to present board members' opinions regarding this issue and how they reacted to this requirement in their firms. A chairperson said,

> ***"From my point of view, there is no need for this separation. I have been a chairperson of this firm for long time, the company is doing well, and I have managed to solve all problems".***

During the collection of the secondary data, the researcher noted that most of the offending companies disclosed different reasons to justify their contradictory positions. For instance, they did not see any need for this separation, since duality managers are qualified and have an adequate level of experience to run their firms successfully; such a clarification is in line with the stewardship theory which claims that, there is no need to have non-duality managers, since the duality one is internally motivated to achieve shareholders goals (Donaldson and Davis, 1991). In spite of the high level of separation, the previous statements provide real evidence that this separation was made just as a response to regulator pressure to adopt 2009 code (Meyer and Rowan, 1977).

The secondary data analysis provides empirical evidence showing a negative but not significant correlation between non-duality managers and discretionary accrual levels in Jordan. Indeed, the secondary data findings generally support audit committee members' and external auditors' arguments, which are presented as important mechanisms for constraining earnings management. Meanwhile, board members' points of view contradict the secondary data findings, since such views do not see any feasibility for such a separation within the Jordanian context.

Indeed, this separation is found to be '*mere ink on paper'*. This conclusion disagree with other findings in which they supported agency theory suggestion that, accruals manipulations is less practiced by non-duality managers (Iqbal *et al.*, 2015; Latif and Abdullah, 2015; Muttakin *et al.*, 2017).

7.6.1.5 Do the Multiple Directorships of Board's Members (maximum five) Constrain Earnings Management?

As a part of creating a powerful and effective board of directors, CG code in Jordan prohibits board members from holding more than five external seats (Cross-directorships) in other firms' boards. Busy directors in general may look more experienced and professional to carry out their monitoring tasks successfully (Jiraporn et al., 2009; Jamaludin et al., 2015). In this section, the researcher aimed to investigate the effects of cross-directorships on constraining accruals manipulations from various perspectives.

Notably, during the interviews and analysis process, the interviewees showed a general endorsement concerning the effect of external directorships in the overall monitoring process. All the participants' statements support JSC efforts that aimed to reduce the total number of external directorships for board members, since it impairs the monitoring roles of board members. In this group, one governmental employee said,

> ***"Through my position in the SDC, we faced the problem that a number of board members do not know the names of the companies of which they are members. So how can you expect from these people to do their monitoring roles to constrain any manipulation in the company. As a regulator, we realized this problem when we addressed the board members who have more than five external directorships asking them to reduce to only five ones or less. As a result, the 2017 CG code limited the number of external directorships to the maximum of three".***

One member of the big-four auditing office stated,

> ***" from the Jordanian market perspective, the aim of increasing the number of external directorships of board members is to polished their social image rather than provide experience for the company or to from a network of relations to support their monitoring experience. This has resulted from the lack of awareness and the ignorance of the importance of the board members as a monitoring instrument".***

A CEO who works in a service company asserted the importance of reducing the number of external directorships, since the current number of external seats available for board members has affected the overall monitoring process negatively. Indeed, he said,

> ***“As company managers, even from the viewpoint of shareholders, we need full-time board members who are qualified enough to run the company efficiently. We need members who never skip meetings and who discuss company’s affairs and problems. I do not need a member who attends two or three meetings without expressing any opinion; I need an effective board member who can help achieve the company’s goals. Hence, I am with the reduction of the number of external directorships”.***

The researcher concluded that the main motivations for holding extra seats were social in the first place and also to gain personal benefits in terms of remuneration. This interesting conclusion seems consistent with the busyness hypothesis, which claims that busy directors lose their ability to oversee board activities and the financial reporting preparation process (Sharma and Iselin, 2012; Baccouche and Omri, 2014; Kapoor and Goel, 2016). The previous statements support the main findings extracted by analysing a set of secondary data in Jordan between 2009 and 2014, since the reported results (see table 6-12, page 175) showed a significant positive relationship between discretionary accruals and the average of holding external seats.

In general, this result does not support previous findings that reached to a different conclusion (Lee and Lee, 2014; Fernandez *et al.*, 2016). Therefore, the new CG code in Jordan, which will be issued by the end of 2017, solves this issue by prohibiting directors from holding more than three external directorships in comparison with the current the 2009 code, which allows directors to hold up to five directorships.

7.6.1.6 Questionnaire and ANOVA Findings Regarding Board of Directors Characteristics

7.6.1.7 Questionnaire Findings Regarding Board of Directors Characteristics

As the researcher mentioned earlier in the methodology chapter, a separate part of the distributed questionnaire used to evaluate the role of board of directors in reducing EM issue based on various perspectives. Indeed, this list contains the same characteristics used in the secondary data analysis.

In terms of boards of directors' characteristics, table 7-8 shows, in general, a weak monitoring role for most of the selected mechanisms according to participants' perceptions. The only agreed-upon result was related to the 'external directorships held by board members'. Indeed, the participants highly believed in the importance of reducing the availability of external seats for board members, and this position is reflected by the estimated overall average values 4.050 with a rank level of 1. In detail, 84.7% of participants agreed or strongly agreed that reducing the number of external directorships is useful for enhancing directors' monitoring roles.

This result is consistent with the busyness hypothesis suggestion that busy directors lack the required time to carry out their monitoring tasks efficiently (Baccouche and Omri, 2014; Jamaludin *et al.*, 2015; Kapoor and Goel, 2016).

Additionally, the participants presented a moderate recognition in their answers regarding the effect of active boards and large boards in constraining accruals manipulations with an overall average score of 3.401 and 3.262 with rank levels of 4 and 8, respectively. Indeed, more than 68.6% and 57.6% of the participants agreed or strongly agreed on the effects of such mechanisms in constraining accruals actions. In general, these results are consistent with prior findings (Tarak Nath and Apu, 2013; González and García-Meca, 2014; Jamaludin *et al.*, 2015; Essa *et al.*, 2016; Halaoua *et al.*, 2017).

However, the most noticeable findings observed were related to independence requirements and non-duality functions. Table 7-8 shows insignificant effects of such members within the Jordanian context, and this was presented in their participations averages, which showed a low average of 2.992 with a rank of 9. This conclusion is supported by the fact that 56.1% of the respondents did not believe in the existence of independent members within the Jordanian context for many reasons. Likewise, some scholars such as Ianniello (2015); Kapoor and Goel (2016); Khalil and Ozkan (2016) documented insignificant monitoring roles of such members in constraining accruals manipulations.

Furthermore, most of the participants (64.1%) did not see any importance in the separation between the CEO and chair positions, since the overall average of their agreement reached 2.649 with a rank of 10. These perceptions contradict some previous findings, such as those of (Iqbal *et al.*, 2015; Khalil and Ozkan, 2016; Muttakin *et al.*, 2017).

Table 7-8 Sub-Groups Perceptions Regarding Board of Directors Characteristics

	Statements	Agreement Percentage %					Overall Average	Rank	SD
		1	2	3	4	5			
1	Board of directors' regular meetings (four meetings at least).	2.9%	26.3 %	2.2%	65.0 %	3.6%	3.401	4	1.010
2	Restricting the upper limit of memberships for each board member (not more than five memberships).	2.9	10.2	2.2	48.2	36.5	4.050	1	1.031
3	Separation between CEO and any executive position within firms.	13.1	47.4	3.6	32.8	2.9	2.649	10	1.154
4	High proportion of independent members in firm's board.	3.6	41.6	10.9	39.4	4.4	2.992	9	1.067
5	Large size of board of directors (six directors at least).	2.2	32.8	7.3	51.8	5.8	3.262	8	1.052
	1=Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree And 5=Strongly Agree Likert Scale Values								

The last two important results are in line with the majority of the obtained results of the semi-structured interviews, since some factors such as tribalism and favouritism may adjust their monitoring roles. Based on the interviews and the questionnaire results for this part, the researcher concluded that boards of directors seems to be a weak monitoring tool for constraining accruals behaviours, since the majority of the obtained results showed low levels of response regarding the selected issues. Further, this was clear in the obtained rank levels, which introduced these characteristics as insignificant tools.

7.6.1.7.1.1 ANOVA Findings regarding Board of Directors Characteristics

The ANOVA test provides significant evidence that there is a noticeable level of disagreement between the participants' perceptions regarding their recognition of the importance of board mechanisms in constraining accruals issues. Mainly, table 7-9 reveals a significant value of (F=24.547, Sig=0.000) with a significant level 0.05. This research rejects the null hypothesis that assumes no differences between groups' means.

Table 7-9 ANOVA Test Regarding Board of Directors Characteristics

Item	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.386	3	4.795	24.547	.000
Within Groups	25.981	133	.195		
Total	40.367	136			

Furthermore, a Post-Hoc test was carried out to determine the main difference points in the participants' perceptions. Tables 7-10 and 7-11 provide detailed descriptions that cover these differences. It is worth noting the governmental employees' positions in comparison with other groups.

Table 7-10 reveals that governmental employees have different perceptions about the monitoring roles of internal CG in constraining accruals actions in Jordan. This significant conclusion is logical and expected, since the targeted governmental employees were mainly serving on the initial committees that started the legislation process to enact CG code in Jordan.

Table 7-10 Multiple Comparisons among the Respondents Perceptions Regarding Board Characteristics

(I)Position	(J) Position	Mean Difference (I-J)	Std. Error	Sig.
Board Member	A/C Member	-.27849	.13552	.173
	Ext. Auditor	-.14874	.11311	.555
	Gov. Employee	-.76923*	.10489	.000
A/C Member	Board Member	.27849	.13552	.173
	Ext. Auditor	.12975	.12701	.737
	Gov. Employee	-.49074*	.11975	.000
External Auditors	Board Member	.14874	.11311	.555
	A/C Member	-.12975	.12701	.737
	Gov. Employee	-.62050*	.09364	.000
Governmental Employees	Board Member	.76923*	.10489	.000
	A/C Member	.49074*	.11975	.000
	Ext. Auditor	.62050*	.09364	.000
***. The mean difference is significant at the 0.05 level.**				

The Post-Hoc test table (7-11) shows that governmental employees and external auditors were less motivated to consider the separation between CEO and chair positions as a deterrent mechanism to enhance board monitoring roles, and this position is reflected in their overall response mean (2.1607 and 2.2973, respectively).

In terms of the effectiveness of introducing independent members to boards' structures, the four groups showed contradictory points of views. Only governmental employees agreed on this statement, in comparison with other groups, which responded weakly to this requirement. This proposition was reflected in their scores of means: governmental employees = 3.8929, board members = 2.3846, AC members = 2.388 and external auditors = 2.8379. This high mean of scores is expected in terms of board independency, since ASE and SDC concentrate on organizing the Jordanian market, at least theoretically, by asking firms to hire independent members in order to protect shareholders' interests and firms' resources. Therefore, they expect a high response from listed firms to cope with this requirement.

Other groups are directly connected to the Jordanian settings in which some obstacles may constrain the presence of independent members in firms' structures. Therefore, their response scores were slightly lower than the governmental expectations.

In terms of the monitoring roles of active boards estimated by the frequency of board meetings, both board members and governmental employees believed strongly in the importance of this mechanism in enhancing the overall monitoring process. Indeed, their scores of agreement explain this optimistic position (board members = 3.6154 and governmental employees = 3.7679). However, the high average of board members' perceptions may be connected to the fact that they are trying to send a clear signal to both internal and external parties that they believe in the importance of such meetings in allowing board members to share their opinions and monitoring notes to guarantee the presence of smooth monitoring processes. Meanwhile, board members aim to leave the good impression on Jordanian regulators that they support board meetings and they are flexible to accepting any participation from any member.

With regard to board size, governmental employees and external auditors preferred large boards within the Jordanian context, since large boards are expected to be more effective, experienced and qualified in comparison with small boards which may be controlled and driven by dominant members (family members). As can be seen in table 7-11, the reported scores of means were as follows: external auditors = 3.5676 and governmental employees = 3.8571). This view contradicts the general position, which claims that flexible and smooth communication channels within small boards may enhance boards' monitoring activities (Iqbal *et al.*, 2015; Ramachandran *et al.*, 2015; Talbi *et al.*, 2015).

Finally, it is worth mentioning that all four groups showed a highly consistent reaction regarding the importance of reducing the availability of external seats occupied by board members. This high consensus supports the fact that busy directors lack the required time, experience and effort to have the upper-monitoring hand in enhancing monitoring positions (Baccouche and Omri, 2014). Furthermore, this agreement in perception may be attributed to their knowledge and experience in the Jordanian environment, which not motivated managers to take advantage of these seats to protect their reputation capital. Their means score as follows: board members = 3.7692, AC members = 4.3889, external auditors = 3.5405 and governmental employees = 4.4107.

In summary, this section provides evidence that CG mechanisms regarding boards of directors' characteristics need more time and research to be understood accurately by the different interested groups. Indeed, there is a gap between boards of directors' propositions and governmental employees' expectations. Regulators legislated this code based on their expectations that it would enhance firms' performances and protect minority shareholders' interests from being expropriated by majority shareholders, without any solutions or suggestions to solve, for example, the independence issues in contexts where tribalism is a common feature. Independence is considered the key issue to support CG code in any context; therefore, the absence of member independence will hinder CG and other laws from being deterrent monitoring tools.

This conclusion presents real evidence that CG mechanisms in terms of boards of directors' characteristics need urgent revision to solve this weakness by constraining the main obstacles that hinder firms' boards from taking their monitoring responsibilities effectively and seriously.

Table 7-11 Participants Descriptive Statistics (Mean and Post-Hoc) Test Regarding Board Characteristics

Statements	Mean				Post Hoc Test			
	B. Director (1)	A/C Member (2)	Ext. Auditor (3)	Gov. Employee (4)	B. Director Sig with	A/C member Sig with	Ext. Auditor Sig with	Gov. Employee Sig with
1. Board of directors' regular meetings (four meetings at least).	3.6154	3.0000	2.8919	3.7679	3	4	1&4	2&3
2. Restricting the upper limit of memberships for each board member (not more than five memberships).	3.7692	4.3889	3.5405	4.4107	4	3	2&4	1&3
3. Separation between CEO and any executive position within firms.	3.9615	3.0000	2.2973	2.1607	2,3&4	1,3&4	1&2	1&2
4. High proportion of independent members in firm's board.	2.3846	2.388	2.8378	3.8929	4	4	4	1,2,3
5. Large size of board of directors (six directors at least).	2.1154	2.4444	3.5676	3.8571	3&4	3&4	1&2	1&2
1= Board Member, 2=Audit Committee member, 3=External Auditor and 4= Governmental Employee								

7.6.2 Do Audit Committee Mechanisms Constrain Earnings Management Levels in Jordan?

In order to determine the influence of AC characteristics on EM issues, the researcher covered the following main characteristics of ACs (AC existence and AC independency).

7.6.3 Does the Existence of Audit Committees Constrain Earnings Management?

Agency theory introduces AC as a delegated body of a firm's board to safeguard and protect shareholders' interests. Based on this mission, the AC is presented in a firm's structure as a monitoring tool that has several significant tasks, such as constraining information asymmetry issues and enhancing the overall auditing process to produce transparent and accurate financial reports (Klein, 2002; Chen and Zhang, 2014).

In this section, the researcher explored the participants' perceptions regarding the establishment of a separate AC by listed firms, since most of these firms did not show any evidence of such committees before 2009 (Shanikat and Abbadi, 2011). In this regard, a member of the Security Depository Centre said:

> ***"The concept of auditing as we understand it now is a relatively new concept both in public and privet sectors. In addition, this is because, most listed firms, especially, and family firms did not accept yet such a concept in Jordan. Therefore, Jordanian environment needs more time to understand and accept the auditing concept and auditing committee. Believe me, the role of AC in Jordan is mere ink on paper having no monitoring role".***

Moreover, the researcher asked an external auditor about the feasibility of establishing a separate AC, and he commented,

> ***"I noticed through my work that most of auditing committees lack the experience proficiency to play a noticeable monitoring role. In my opinion, establishing such a committee was as a response to meet CG code requirements not as an independent committee reasonable for monitoring auditing process".***

Another external auditor summarized his opinion with the following:

> ***"In short, these committees are directed by board of directors so no benefits of such committees".***

However, since this section directly concerns AC effectiveness, it was worth asking AC members about their opinions, since the previous two comments showed audit committees as ineffective mechanisms. Indeed, a member of an AC said,

> ***"As auditing committees our main concerns is to ensure the continuity of the company by preparing transparent financial reports, but our main problem with the board for example, they frequently change their accounting policy concerning fixed assets depreciation. When we ask the board to justify this, they claim that, the accounting standards allow for such decisions. Honestly, we do have a role in preparing financial reports but not a monitoring role".***

Most of the interviewees believed in the importance of ACs as monitoring functions, and perhaps they derived this belief from their expectations and experiences in terms of the importance of such a committee in enhancing the overall monitoring process. However, on the ground, ACs in general seem to be similar to any normal and unsupported committee with routine tasks and responsibilities.

To solve the inappropriate monitoring positions of this issue, AC member presented some solutions:

> ***In general, members of the auditing committee should have job security…Because, simply put, most of our corporations here are family ones… Whenever we encounter the board of directors, we get kicked out of our jobs. Frankly speaking, have it been the case that we enjoy a job security supported by laws that protect us, we then can lead a very strict monitoring role. But currently, our monitoring role is a superficial one only appearing on papers.***

In general, these statements are in line with the institutional theory proposition, which claims that the establishment of a separate AC was done to cope with regulators' pressures to adopt CG code in Jordan (Meyer and Rowan, 1977). Therefore, this situation has weakened the effectiveness of AC in constraining managers' opportunistic actions. Furthermore, this leads to keeping the monitoring tasks and responsibilities as merely 'in ink' without any practical effects on the ground. Interestingly, the previous statements support the secondary data finding regarding the feasibility of establishing a separate audit committee, since table 6-12 showed a positive correlation between the existence of an audit committee and discretionary accruals levels in Jordan.

This result contradicts agency theory, which introduces AC as core-monitoring tools to enhance firms' financial report integrity and transparency. Additionally, this conclusion contradicts previous findings of noticeable roles of separate AC in constraining accruals manipulations (Chen and Zhang, 2014; Omoye and Eriki, 2014; Albersmann and Hohenfels, 2017).

Based on the prior statements, the auditing concept needs more time to explain the role of establishing separate ACs as delegated bodies to support board monitoring roles. The Jordanian environment needs to make concerted efforts in order to build a solid ground for the auditing concept, specifically accepting the existence of a separate AC as a supportive committee to maximise shareholder wealth. Additionally, it is very important to legislate some laws and regulations to guarantee a secured job position for AC members to support their monitoring roles.

7.6.4 Does the Existence of Independent Members within an Audit Committee Constrain Earnings Management?

As a part of establishing a separate AC, the existence of independent members to guarantee an effective monitoring role is crucial. Therefore, the Jordanian CG code asked listed firms to have at least three independent members. Hence, the researcher asked the interviewees about the effectiveness of such members in enhancing the overall monitoring process in Jordan, and their answers were as follow:

A governmental employee said,

> ***"Independence is available only in the financial reports of companies, but, in reality there is nothing known as the independence. Favouritism and tribalism have weakened committee's independence. Additionally, family firms are still look down on auditing committee instead of considering it as a committee supporting the board".***

Additionally, the researcher explored an external auditor's opinion regarding AC independence, and he claimed that:

> ***"Their independence is incomplete because they lack proficiency and experience since the recruitment criteria were not depending on their qualifications. In addition, they lose the sense of job satisfaction if they oppose or question the board of directors".***

From management's perspective, a member of a board of directors said,

> ***"In compliance with the 2009 CG code, we have established as a company an AC that meet the requirements of the guide. We do our best to ensure the independence of committee, but in light of the current settings and conditions this is the best level of independence that we can provide".***

However, from the standpoint of the audit committee, a member said,

> ***"In my capacity as the chairman of an auditing committee, I tell you that the members of both board of directors and audit committee are not fully independent. As an auditing committee, we are fully aware and knowledgeable of our monitoring role. However, honestly, the chair of board controls the role of all auditing committees. Indeed, once the committee exceeded the limit allowed, the member will simply be sacked or changed".***

These comments present various evidence that independence issues for both boards of directors and ACs are still not adopted and not activated in a significant manner. Therefore, their independence seems to be incomplete and less powerful than CG code legislated. By contrast, the secondary data analysis introduced such members as qualified and experienced members for constraining discretionary accrual prevalence in Jordan, since table 6-12 showed a significant negative relationship between discretionary accruals and independent members within audit committees.

However, the statements show that listed firms have established separate ACs with specific tasks and responsibilities in which committee members are barred from acting outside a specified framework. Hence, the Jordanian regulators should focus on the empirical and practical matters instead of focusing on legislating the theoretical framework of the AC.

In general, this result is consistent with Alghamdi (2012); Al-Rassas and Kamardin (2015); Ianniello (2015); Juhmani (2017) findings, which showed that independence standards may be close to a formality style rather than focusing on the practical part. Hence, Jordanian regulators should consider the Jordanian settings and conditions when enacting code or laws such as CG code.

7.6.5 Questionnaire and ANOVA Findings Regarding Audit Committee Characteristics

7.6.6 Questionnaire Findings Regarding AC Characteristics

Table 7-12 presents a moderate level of consensus regarding the effectiveness of AC characteristics in enhancing the overall monitoring process in Jordan. The overall average of agreements about the effects of the existence of an AC was (mean= 3.284, rank=7). This result shows a moderate level of harmony regarding the efficiency of establishing a separate AC to act as a monitoring body within the structure of the listed firms. This moderate position is reflected by the fact that 51.6% of the respondents documented a weak benefit of creating a separate AC to support the overall monitoring process in the firms. This result is not consistent with some previous results that document a significant effect of establishing a separate AC on the overall monitoring process (Chen and Zhang, 2014; Albersmann and Hohenfels, 2017).

In terms of the existence of independent members in AC, table 7-12 shows that the overall mean of perceptions reaches (mean=3.372, rank= 6). Interestingly, around 58.4% of the respondents believed in the importance of introducing such members. Such a high level of agreement may be attributed to their expectations regarding the monitoring roles of such members based on CG code recommendations. In general, this result is in line with previous findings obtained by different scholars such as (Chen and Zhang, 2014; Iqbal *et al.*, 2015; Kankanamge, 2016).

Finally, 63.5% of the respondents felt that active committees which met at least four times annually were more effective in comparison with other AC characteristics with an overall (mean= 3.401, rank= 4). This important conclusion could be attributed to the participants responding based on a general perception regarding the importance of meetings in general. This result is consistent with those of González and García-Meca (2014); Elijah and Ayemere (2015); Kankanamge (2016) who concluded that active ACs were more qualified in constraining accruals manipulations.

Table 7-12 Sub-Groups Perceptions Regarding AC Characteristics

	Statements	Agreement Percentage %					Overall Average	Rank	SD
		1	2	3	4	5			
1	The existence of an audit committee.	2.9	41.4	7.3	41.1	7.3	3.284	7	1.077
2	The existence of independent members in the audit committee	4.4	24.1	7.3	58.4	5.8	3.372	6	1.050
3	Audit Committee regular meetings four meetings at least (more than four).	18.2	19.9	4.4	35.8	27.7	3.401	4	1.478
	1=Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree And 5=Strongly Agree Likert Scale Values								

7.6.6.1 ANOVA Findings Regarding AC Characteristics

In terms of the group differences, the ANOVA findings presented in table 7-13 reveal a statistical evidence that there were noticeable variance in participant's answers regarding AC effectiveness. This is presented on the reported F value 24.547 with significant levels at 0.05. Additionally, table 7-14 provides further details that explain these differences.

Table 7-13 ANOVA Test Regarding AC Characteristics

Item	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.386	3	4.795	24.547	.000
Within Groups	25.981	133	.195		
Total	40.367	136			

As presented in table 7-11, governmental employees and board members believed significantly in establishing a separate AC to support the monitoring processes in the Jordanian firms in comparison with other groups who were less. This is because the regulators aim to offer the most organized and structured environment for the Jordanian listed firms to carry out its monitoring activities. A logical justification behind the high level of agreement related to boards of directors' perceptions is that they want to send a clear sign to both regulators and shareholders that they believe in CG recommendations and are doing their best to act on behalf of the firms' shareholders. This position is reflected in their answers' means (governmental employees = 3.7321 and board members = 3.6154) in comparison with other groups' means (AC member = 3.000 and external auditor = 2.5135).

Furthermore, table 7-14 indicates that Jordanian regulators and AC members recognized the importance of independent members in AC differently. This was clear in their answers: governmental employees = 3.9829 and AC members = 3.6667. This result in fact indicates that AC members have at least the minimum required information regarding the effects of such members in supporting AC positions. Additionally, this is the expected conclusion regarding regulators' perceptions in terms of the importance of recruiting independent members to such committees; since they are the responsible party to legislate such a requirement.

Finally, in respect to active AC, the three groups (AC members, external auditors and governmental employees) believed that active AC which meet four times at least is more powerful and effective in constraining accruals manipulations. Their answers averages were as follow: 3.0556, 3.8919 and 4.1964, respectively. Boards of directors should be aware of the importance of the previous mechanism in supporting the overall monitoring processes, but their answers were not supportive of such a suggestion. Indeed, they did not agree with the proposition that supports the previous statement, and this was presented in their low mean agreement score: 1.2692.

In conclusion, both results obtained from the interviews and the questionnaires provide empirical evidence that the Jordanian listed firms still look down on auditing committees instead of considering them as committees supporting the boards. This negative recognition is attributed to different factors, such as recruitment policy, which rely on tribalism or favouritism criteria rather than proficiency or protection laws. Furthermore, most of the listed firms on ASE are family firms, and these firms cannot easily accept the introduction of a powerful committee in their firms to monitor or control their decisions. In fact, family firms' members want to be the only dominating group in the operations of the firms. Therefore, the Jordanian economy likely needs more time to accept this concept.

Table 7-14 Participants Descriptive Statistics (Mean and Post-Hoc) Regarding AC Characteristics

Statements	Mean				Post Hoc Test			
	B. Director (1)	A/C Member (2)	Ext. Auditor (3)	Gov. Employee (4)	B. Director Sig with	A/C member Sig with	Ext. Auditor Sig with	Gov. Employee Sig with
1. The existence of an audit committee.	3.6154	3.0000	2.5135	3.7321	3	4	1&4	2&3
2. The existence of independent members in the audit committee	2.7308	3.6667	2.8919	3.9829	2&4	1&3	2&4	1&3
3. Audit Committee regular meetings four meetings	1.2692	3.0556	3.8919	4.1964	2,3,&4	1,3 &4	1&2	1&2
1= Board Member, 2=Audit Committee member, 3=External Auditor and 4= Governmental Employee								

7.7 Do the Different Types of Ownership Constrain Earnings Management Accounting in Jordan?

Concentrated ownership combined with a sound structure of CG mechanisms may play noticeable monitoring roles in enhancing firms' financial reports (Wang, 2014; Ratnawati and Abdul-Hamid, 2015). Active owners such as institutional, blockholder and managerial owners are motivated to reduce the likelihood of opportunistic behaviours and thus lead to solving or reducing conflicts of interest within companies (Alzoubi, 2016; Rad *et al.*, 2016).

Hence, the researcher has interviewed different participants to shed light on their perceptions regarding the effectiveness of ownership structures in constraining accruals decisions. The covered types of ownerships are institutional investors, managerial investors, blockholder investors and family firm ownership.

7.7.1 Does the Existence of Institutional Ownership Constrain Earnings Management?

The existence of active institutional investors may adjust the monitoring behaviours of the investee companies (Gillan and Starks, 2003; Mehrani *et al.*, 2017). This view is consistent with the agency theory proposition that concentrated ownership may play a supplementary monitoring role in supporting the overall monitoring process in a firm (Fama and Jensen, 1983). In this regard, the interviewees mentioned different factors that may affect the monitoring role of such investors. For example, they mentioned the effect of ownership percentage, investment duration and the type of investors.

The presence of institutional investors in the Jordanian market reaches, on average 40%. The participants showed different perceptions' regarding the monitoring roles of the institutional investors. For instance, a member of an external auditing office said:

> ***"From my point of view, the major factor that constrains the efficiency of their monitoring role is the percentage of ownership. The more the ownership percentage of this sort of investors with a long-term investment strategy, the more their monitoring role becomes".***

From another point of view, a governmental employee stated,

> ***"I believe that the institutional investors in general and the Social Security Corporation must be separated. If we exclude the SSC, we find that other institutional investors have played a crucial monitoring role in compare with the SSC that aims to achieve political goals to express gratitude to certain politicians who rendered service to it in other situations".***

A member of an audit committee within the industrial sector said,

> ***"I prefer to have board members with diverse investment experience like banks. The existence of such quality of investors with a long-term investment plan plays a role in monitoring board's activities and performance. Indeed, such investors are aware of their monitoring role in which they can constrain accounting manipulations".***

A member of a board of directors within the service sector said,

> ***"This sort of investors is not very common in Jordan. This kind of investors is confined to the SSC, which has the highest market share as compared to other types such as banks. SSC often seeks political goals, but banks, which concern with protecting its reputation and investments, have an effective monitoring role to constraint infringements".***

Interestingly, some of these statements seem to be consistent with previous studies such Alghamdi (2012); Wang (2014); Rad *et al.* (2016); Mehrani *et al.* (2017), who found the monitoring roles of active and long-term investors to be crucial in constraining accruals manipulation in comparison with other institutional investors who seek high profits in a short period (free-riders).

Additionally, there was general agreement that institutional investor's type affect their monitoring roles in a significant manner. For example, institutional investors such as banks practiced their monitoring roles more effectively when compared with other investors such as the Social Securities Corporation (SSC), which aimed to achieve political goals to remunerate some board members for their service in other positions.

In general, the previous statements support and explain the secondary data findings, which document a negative but not significant monitoring role of such owners within the Jordanian context. Indeed, such a conclusion seems to be in line with previous studies, such as (Njah and Jarboui, 2013; Al-Amarneh, 2014).

7.7.2 Does the Existence of Family Firms Constrain Earnings Management?

This type of ownership presents the horizontal conflict of interests between firms' agents and principals. In most cases, there is a hidden congruence between the principals and agents in terms of firms' earnings figures, which leads to a collusion to alter or to manipulate firms' earnings for many reasons (Chi *et al.,* 2014; Chen *et al.*, 2015).

Hence, the researcher has explored participants' opinions regarding the level of engagement in accruals manipulation within the Jordanian family firms.

An external auditor expressed his opinion with the following statement:

> ***"Through my work as an external auditor, I found that family firms in general do not disclose their real earnings in their financial reports. In addition, the reason is they do not want any shareholders to share their firm's success. Therefore, most shareholder in most of family listed firms are of the same family or a group of friends. I am very sure that they know why the real earnings are not disclosed and they approve of that".***

A governmental employee presented this point of view:

> ***"Family firms in our country are influential and they exert pressures. They negatively look at the governments. Most of the firms I believe, manipulate their real earnings in order to pay less taxes. They think that the government does not render any service in return for the taxes it charge. And that's why they evade paying the taxes required".***

A CEO within the industrial sector presented this opinion:

> ***"As a board we never manipulate the value of earnings disclosed in our financial reports. All our accounting policies are legal and in line with accounting standards. For example, if I am permitted by law to choose***

from a number of accounting options, why shouldn't I choose the appropriate policies that suit the firm's circumstances".

The first two statements provided by an external auditor and a governmental employee are consistent with the majority of previous studies, which introduced family firms as a fertile ground to alter firms' earnings (Chi *et al.*, 2014; Chen *et al.*, 2015; Vieira, 2016). Additionally, these statements support the secondary data findings presented in table 6-12 (see page 175), which document a significant positive correlation between family firms and discretionary accruals over a sample of non-financial firms listed between 2009 and 2014.

In contrast, and in line with the researcher's expectations, the board member's opinion does not state a clear answer about whether family firms manipulate earnings or not. They claimed that all of the adopted policies and approaches are legal and confirmed by accounting standards. Indeed, the board member recognizes these activities as a legal form of actions and not comparable to manipulations actions.

This view is in line with the argument that family firms are safe environments which do not manipulate or adjust firm earnings, since such opportunistic actions may threaten the survival of the family firms in the long run (Achleitner *et al.*, 2014; Martin *et al.*, 2016).

7.7.3 Does the Existence of Managerial Ownership Constrain Earnings Management?

Another adopted remuneration scheme used by listed firms to align the interests between firms' agents and principals is distributing a specific stack of shares to boards' members (Alzoubi, 2016). This situation motivates them to act on behalf of the firms' shareholders to maximise shareholders' wealth, which leads to reducing the agency problem (Alves, 2014; Ratnawati and Abdul-Hamid, 2015).

A governmental employee contradicted the above argument by claiming that:

> ***"I don't want to be pessimistic, but even if the board members have shares in the company, I believe they will not have an effective monitoring role. The reason is that recruitment in boards is not based on qualifications or experience".***

A member of an audit committee within the industrial sector said,

> ***From my point of view, these shares may motivate the board members to play a good monitoring role but not a considerable effective one. I assure you, directors who hold shares will be compensated in one way or another, and this may lead those managers to cooperate with the chairperson of board to achieve his goals, which will probably not be in the interest of the minority shareholders".***

From a different perspective, an external auditor expressed this opinion:

> ***"There are many good example of this type of ownership in constraining the opportunistic behaviour of board members. For instance, company XXX, when it recruits any employees it gives him the privilege of getting a number of shares at low price during his service in the company. I noticed that some of these privileged employees became board members who had an effective monitoring role".***

This type of ownership presents contradictory evidence about the effectiveness of distributing a block of shares to board members. The external auditor's view is consistent with both the convergence-of-interests hypothesis and agency theory framework, which suggest that managerial ownership seems to have a significant effect in constraining accruals decisions since such a compensation plan is expected to align the interests between firms' agents and principals (Liu, 2012; Alves, 2014; Ratnawati and Abdul-Hamid, 2015).

However, some of the interviewees were pessimistic, and they didn't find any feasibility of such owners within the Jordanian context, since family members can reward them in different ways as a result of their complicity to alter firms' earnings (Nugroho and Eko, 2012; Kamran and Shah, 2014). Interestingly, the previous statements are in line with the secondary data findings, since table 6-12 reports the weak monitoring role of such owners in constraining discretionary accruals in Jordan by reporting a negative but not significant association between managerial ownership and discretionary accruals.

7.7.4 Does the Existence of Blockholder Ownership Constrain Earnings Management?

Blockholder ownership is more common in developed countries such as the UK and the US than in emerging markets, where the common type of ownership is family ownership (Siregar and Utama, 2008; Halioui and Jerbi, 2012). In Jordan, this type of ownership reached, in the best years, approximately 10.2% in comparison with family firm ownership, which represents nearly 60.1%. An interview with a government employee supports this conclusion by indicating this fact and the effect of ownership percentage on enhancing blockholders' monitoring roles. Indeed, he said:

> ***"This type of ownership is not very common in Jordan. In general, any investor owns less than 5% of the company's shares does not have any monitoring role whatever. However, if the ownership percentage is effective and connected with good investment background, they may have a good monitoring role to some extent".***

From another point of view, ownership percentage is shown as one of the main factors that shaped the monitoring tasks of such investors. Indeed, a member of auditing office said:

> ***"The ownership percentage is one of the main factors that determine the degree of the monitoring role of these investors. Based on my experience, the greater the ownership percentage, the more effective their monitoring role".***

However, a member who served in AC mentioned the importance of blockholders' investments backgrounds in supporting their monitoring positions

> ***"In my point of view, most of individual investors lack the financial and investing experience needed to monitor their investments. Most of the investors have different academic backgrounds such as engineering or medicine for example. Hence, even if their percentage is high, I do not believe that they may have a significant monitoring role since they lack the required experience and knowledge to capture the manager opportunistic decisions. In my point of view, the availability of good financial knowledge and investing expertise as well as an effective***

percentage of ownership will result in creating shareholder with an effective monitoring role".

According to the previous statements, there are two main factors that determine the monitoring boundaries for such owners. To have a noticeable monitoring position, blockholder should own a significant percentage combined with good financial knowledge and investing expertise to have close monitoring actions that may restrict managers' opportunistic behaviours. In general, this conclusion is consistent with other findings obtained by previous researchers (Habbash, 2013; Alves, 2014; Dou *et al.*, 2016). This conclusion seems to be in line with the extracted findings of the collected secondary data, since table 6-12 reported a significant negative correlation between discretionary accruals and blockholder owners who hold at least five per cent of a firm's outstanding shares.

7.7.5 Questionnaire and ANOVA Findings Regarding Ownership Structure.

7.7.6 Questionnaires Findings Regarding Ownership Structure.

Similar to the previous related section, this part presents the main findings of the questionnaires and ANOVA test. The four covered types of ownerships were blockholders, institutional, managerial and family. According to table 7-15, excluding family firm ownership, most of the participants believed in the importance of the concentrated ownership in constraining accruals manipulations.

The majority of the participants 77.4% said that the existence of blockholder was very important to enhancing financial statement quality by reducing mangers' opportunistic behaviours with a reported average of 3.605 and with a rank level of 2. In general, this result supports previous findings obtained by scholars who documented a superior monitoring position of such investors (Habbash *et al.*, 2013; Alves, 2014; Dou *et al.*, 2016).

Similarly, more than half of the respondents support agency theory proposition that claims that granting a stack of shares to firms' directors may motivate them to act on behalf of the firms' principals. This significant conclusion is presented in the participants' answers, which indicated an overall average of response of 3.8750 and a ranked level of 3. This general finding is consistent with prior studies (Liu, 2012; Alves, 2014; Ratnawati and

Abdul-Hamid, 2015). Additionally, this result is in line with the external auditors' expectations that managerial ownership is a good remuneration plan to align their interests with firms' shareholders.

The third effective type of ownership is related to institutional owners. Table 7-15 shows that 58.3% of respondents agreed on institutional investor's existence on firms' structure with an overall mean of acceptance of 3.401 and with a rank of 4. This result is in line with some previous results which presented institutional owners as a deterrent monitoring mechanism in constraining EM practices (Alzoubi, 2016; Rad *et al.*, 2016; Mehrani *et al.*, 2017).

Interestingly, there was a general agreement among the various groups of participants that the previous three types of ownerships can be effective monitoring mechanisms in comparison with other mechanisms (e.g. CG). This fact could be interpreted as that the presence of such investors is not a new issue in Jordan in comparison with CG, which was legislated in 2009. Therefore, and during the last several years, these various types of ownership have acquired the required monitoring experience to have noticeable monitoring roles in Jordan. Additionally, ownership structure does not ask firms to hire independent members or adopt other requirements; hence, perceiving a crucial monitoring role of such ownerships is not expected to be as expensive as adopting CG code to enhance the overall monitoring process.

However, 64.3% of respondents doubted the monitoring role of the family firms within the Jordanian context. Indeed, they ranked this mechanism eleventh out of twelve mechanisms, with an overall average of response of 2.313. This result presents family firms as fertile environments to support accruals manipulations. In such a situation, family firms are motivated to limit financial information flow to other interested groups, and thus they are expected to manipulate earnings in order to achieve their goals (Fan and Wong, 2002). This result is consistent with prior findings which presented evidence that family firms have practiced aggressive accounting techniques to alter firms' earnings (Achleitner *et al.*, 2014; Chi *et al.*, 2014; Chen *et al.*, 2015; Vieira, 2016).

The researcher expected this result to be found within the Jordanian context since the main feature of Jordan is ***tribalism***. This issue motivates listed firms to formulate their businesses and devote various efforts to building reputable firms to gain benefits (profits);

therefore, it is not easy for family members to accept new shareholders to share their profits and efforts.

Table 7-15 Sub-Groups Perceptions Regarding Ownership Structure

	Statements	Agreement Percentage %					Overall Average	Rank	SD
		1	2	3	4	5			
1	The existence of block-holders' owners.	3.6	16.8	2.2	70.1	7.3	3.605	2	.9728
2	High proportion of shares owned by members of board of directors.	6.6	12.4	10.9	56.9	13.1	3.576	3	1.075
3	The existence of family firms' ownerships.	40.9	23.4	5.1	24.8	5.8	2.313	11	1.376
4	The existence of institutional owners.	2.2	31.4	7.3	54.7	3.6	3.401	4	1.896
	1=Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree And 5=Strongly Agree								

7.7.6.1 ANOVA Findings Regarding Ownership Structure

Table 7-16 offers statistical evidence that there is an important difference between the four targeted groups regarding their awareness of the monitoring roles of ownership structures in constraining accruals manipulations.

Table 7-16 ANOVA Test Regarding Ownership Structure

Item	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.386	3	4.795	24.547	.000
Within Groups	25.981	133	.195		
Total	40.367	136			

As presented in table 7-17, there are no significant differences between AC members and external auditors in terms of the existence of blockholder as a monitoring mechanism in firms' structures. This is predictable since neither group has a direct link or previous experience with such owners; therefore, both groups lack a general overview regarding blockholders' monitoring roles in comparison with, for instance, regulators or board members. Furthermore, such a type of investors is not very common in Jordan compared with, for example, institutional or family owners.

In contrast, the governmental employees strongly believed in the monitoring role of such owners, and this was reflected in their perceptions with an average of 3.9464 in comparison with a moderate level of agreement with other types of respondents. This optimistic position is attributed to governmental thoughts that they legislated the required protection rights which enhanced blockholders' monitoring roles in listed firms in Jordan.

Furthermore, table 7-17 shows that Jordanian regulators are convinced that family firms are not the best choice for providing a good example for shareholders to invest their savings, since their overall average of response was 1.9286 in comparison with board of directors' members, who believe that family firms are a healthy investment destination for expected shareholders. Their level of agreement reached a high average of 3.6923. Their position is expected and logical, since no one in family firms will present any declaration that their institutions may alter earnings figures.

AC members recognized the importance of adopting the managerial ownership style within the Jordanian context to reduce the consequences of the problem between firms' agents and principals. The reflection of this position is found in their mean of agreement of 4.222, the highest mean reported in table 7-17. This result indicates that AC members have at least the minimum required information regarding the effects of such members in supporting the overall monitoring process in their firms, since such members directly practice their pressures and control over firms' employees. Additionally, this may be attributed to their access to several cases in which such owners were effective in constraining accruals manipulations.

Finally, both external auditors and governmental employees showed high averages of agreement in support the existence of institutional owners in firms' structures 3.5893 and 3.5405, respectively. This effective proposition could be attached to their practical and field experience with such investors who reduced the probability of engaging in accruals actions in some listed firms or banks in Jordan (Al-Amarneh, 2014).

In summary, the results introduced ownership structures (institutional, managerial and blockholder) as deterrent monitoring tools that have crucial roles in constraining accruals manipulations within the Jordanian context.

Table 7-17 Participants Descriptive Statistics (Mean and Post-Hoc) Test Regarding Ownership Structure

Statements	Mean				Post Hoc Test			
	B. Director (1)	A/C Member (2)	Ext. Auditor (3)	Gov. Employee (4)	B. Director Sig with	A/C member Sig with	Ext. Auditor Sig with	Gov. Employee Sig with
1.The existence of block-holders' owners	3.0769	3.6667	3.4324	3.9464	4	-	-	1
2. High proportion of shares owned by members of board of directors.	2.9231	4.2222	3.2703	3.8750	2&4	1&3	2&4	1&3
3. The existence of family firms' ownerships	3.6923	2.500	1.8378	1.9286	2,3,&4	1	1	1
4. The existence of institutional owners	2.1154	3.2778	3.5405	3.5893	2,3 &4	1	1	1
1= Board Member, 2=Audit Committee member, 3=External Auditor and 4= Governmental Employee								

7.8 Conclusion

Twelve face-to-face interviews and distributing 320 questionnaires with four types of respondents (i.e. board members, audit committee members, external auditors and governmental employees) were enough to draw an initial overview of the monitoring roles of both internal CG mechanisms and ownership map in Jordan. And further, to determine the most favourable accruals techniques used by Jordanian managers to alter firms' earnings. In this chapter, the researcher aimed to evaluate the monitoring effects of such tools from different points of view, since chapter six has examined the relationships between these mechanisms statistically.

This chapter starts by offering valid answers that explain the obstacles hindering CG code from being a deterrent monitoring mechanism in Jordan based on participants' perceptions and their understandings of the Jordanian environment. In this regard, the interviews' findings introduced different examples of the main challenges that faced CG in Jordan. The findings here were that political factors, social and cultural factors, and employee characteristics were the main obstacles that restricted the effectiveness of CG in Jordan.

However, according to the interviewees' statements, the tribal system, favouritism or (Wasta) have mainly affected the compositions of boards of directors, since most of the Jordanian listed firms (60.1%) are family firms. These issues played an important role in selecting and hiring firms' employees and board members since it directly relies on blood relationships or friendship connections with a clear absence of proficiency criteria in most cases.

With regard to the research question '*What were the most common EM techniques used in Jordan from 2009 to 2014 from different perspectives*?'; the obtained findings showed that accruals techniques have been applied in Jordan under three main techniques: 'Altering depreciation policy, such as altering useful life or salvage value amounts'; 'Altering accounts receivable' and 'Altering inventory amounts by changing valuation methods' (FIFO and AVCO). Interestingly, the interview findings confirmed the previous results. These results support the agency theory proposition, which assumes that managers are motivated to adopt various techniques to expropriate principals' interests(Fama and Jensen, 1983). And the presence of such techniques is expected as a response to weak and poor protection rights in the emerging market (Idris, 2012; Owusu and Weir, 2016).

In terms of the main research question regarding CG effectiveness in constraining accruals behaviours, the questionnaire participants showed a general endorsement for CG mechanisms having weak effects in enhancing the overall monitoring processes in Jordan.

This may be attributed to the existence of various obstacles that hinder the monitoring roles of these mechanisms. Their answers arrange these mechanisms as follows: ‘Restricting the upper limit of memberships for each board member (not more than five memberships)’; ‘Boards of directors’ regular meetings (four meetings at least)’; ‘AC regular meetings (four meetings at least)’; ‘The existence of independent members in the audit committee’; ‘The existence of an audit committee’; ‘Large size of board of directors (six directors at least)’; ‘High proportion of independent members in firms’ boards and, finally, ‘Separation between CEO and any executive position within firms’.

The semi-structured interviews shed light on various factors that may impact the effectiveness of CG mechanisms in Jordan, such as favouritism, Arab Spring, human capital characteristics and tribalism, which have direct effects on the independence requirements and in accepting CG in Jordan. Furthermore, the adopted survey revealed various evidence which showed a weak and insufficient recognition of the auditing concept in general and in establishing a separate audit committee with a sound structure to play a significant monitoring role in enhancing the overall monitoring process in Jordanian firms.

However, both the questionnaire and the interviews presented ownership structure as a better monitoring tool in comparison with internal CG mechanisms, and this was obvious in reported rank levels (blockholder (2), managerial ownership (3) and institutional ownership (4)). Unsurprisingly, the participants in this survey considered family firms to be supportive environments for managers to practice their discretions over the financial accounts to achieve their personal goals at the expense of the firms’ minority shareholders.

In general, most of the participants’ perceptions regarding CG effectiveness are consistent with institutional theory, which considers the adoption of CG recommendations a form of ‘*pressure*” to avoid any fines or problems with the Jordanian governments (Meyer and Rowan, 1977). This diminishes of the CG code as key instrument to mitigate agency problems that arise as response of the separation between ownership and control. Hence, in such an emerging market (Jordan), the qualitative approach seems to be insightful to investigate such phenomena in comparison with secondary data analysis in which the researcher depends on firms' disclosures that may be misleading. Additionally, adopting other theories (institutional theory, resource dependency theory and stewardship theory) to interpret the relationships between seems to be more appropriate within the emerging markets, since some political, social and economic factors may adjust the monitoring behaviours of the monitoring tools.

Chapter 8: Summary and Conclusions

8.1 Introduction

Chapter Six and Seven provided a detailed view of the research findings extracted from the quantitative and qualitative stands. Chapter Six explained the main statistical approaches adopted by the researcher to examine the relationship between the monitoring tools and earnings management (EM) estimated by discretionary accruals, based on a set of secondary data for a sample of 134 listed firms on ASE. In chapter Seven, the researcher analysed a set of questionnaires and face-to-face interviews to provide further insights into the issue under investigation, and to further support the analysis presented in the prior chapter. The present chapter aims to outline the key results of this research, discuss the research contributions, implications and recommendations and provide some suggestions for future research. Hence, the structure of this chapter is as follow: Section 8.2 summarizes briefly the scope and the methodology of this thesis. Section 8.3 demonstrates the main results. Section 8.4 highlights the main limitations of this research. Section 8.5 illustrates the research implications and section 8.6 reports some fields for future investigation.

8.2 An Overview of Thesis Scope and Methodology

8.2.1 Thesis Scope and Methodology

As the researcher has noted throughout this thesis, the main goals were to explore the monitoring roles of the controlling tools (i.e. internal corporate governance and ownership structure) in constraining manager's opportunistic behaviour estimated by discretionary accruals. Furthermore, the researcher aimed to achieve a sub-goal by explaining the main accruals techniques that have been used by Jordanian managers to alter firm's financial reports. The researcher decided that the mixed methodology approach was an appropriate methodology to answer his research questions, since applying one single approach may have not reached valid results in such a weak market (Jordan).

In detail, the researcher manually collected manually the required secondary data that covered the discretionary accruals issue, CG mechanisms and ownership types. In this part, the secondary data analysis covered six financial periods, starting from 2009 and ending in 2014, covering two main sectors (service and industrial) with a total of 134 non-financial firms.

On the other hand, the questionnaire phase tried to explore participants' opinions regarding the effectiveness of the monitoring tools in enhancing financial reports' integrity by reducing EM prevalence in Jordan. In this regard, the researcher selected four types of participant (i.e. board directors, AC members, external auditors and regulators), with a valid response rate of 42.8% being obtained.

Consequentially, and during the process of distributing the questionnaires, the researcher asked some participants to take part in further investigation, by conducting separate face-to-face interviews to discuss the research problem in depth. As a result, the researcher was able to conduct 12 valid and reliable interviews.

8.3 Summary of the Research Results

This section summarises the main results of this research, connected directly to the research questions outlined in Chapter One. The researcher formulated three main questions to achieve the research objectives, the first question evaluating the monitoring role of the internal CG mechanisms that cover boards of directors and AC characteristics in constraining EM. The second question was formulated to explore the effects of ownership structure on constraining EM, covering four main types of ownerships (i.e. institutional ownership, family ownership, blockholder ownership, and managerial ownership). Finally, the researcher structured the third question to shed light on the techniques most frequently used by Jordanian managers to alter firms' earnings. The following table summarizes the main research questions, objectives and the main approaches used to answer each question.

However, since this study adopted a mixed-methodology, the researcher will summarize the main findings based on the adopted approach started by the objective approach and then the subjective approach. The following table (8-1) summarizes the main research questions, objectives and the research approach used to answer each question.

Table 8-1 Summary of Research Questions and Objectives

Research Questions	Objectives	Methods
What are the common techniques of earnings management in Jordan?	To identify the main techniques that have been used by Jordanian firms.	**Main:** Questionnaire
Does the Jordanian CG code constrain earnings management phenomenon?	To identify the roles of CG mechanisms as tools to control earnings management.	**Main:** Secondary data analysis **Secondary**: Questionnaire Interview survey
Do the different types of ownership constrain earnings management levels in Jordan?	To investigate empirically the effects of ownership types in constraining earnings management practices over the study period.	**Main:** Secondary data analysis **Secondary:** Questionnaire Interview survey

8.3.1 The Objective Approach Findings (Secondary Data)

The first goal of this thesis was to evaluate the monitoring behaviours of the internal CG mechanisms and ownership structure in restricting the discretionary accruals phenomenon. As a main model to estimate discretionary accruals, the researcher adopted the Modified Jones (1995) model. In light of this main goal, this section of the study tried to offer sufficient conclusions to the following:

1. Do the internal CG mechanisms in terms of boards of directors' independence and audit committee characteristics constrain EM practices in Jordan?
2. Do the different types of ownership constrain EM in Jordan?

8.3.1.1 Board of Directors Characteristics and Earnings Management

This thesis is a deductive one and relied on agency theory when formulating the research objectives and hypotheses. This was due to the fact that a qualified and experienced board of directors will improve the quality of financial statements by hindering managers from taking advantage of their positions to achieve personal benefits (Fama and Jensen, 1983; Mallin, 2011; Chen and Zhang, 2014). The general expectation of the researcher was that '*boards of directors are expected to minimise the consequences of the agency problem by* *constraining accruals manipulations*'. Therefore, the researcher formulated five hypotheses to test the monitoring roles of the Jordanian boards.

Firstly, the researcher found a significant negative correlation ($P<0.05$) between discretionary accruals and the proportion of independent members. This result was expected, at least statistically, since the Jordanian firms showed a moderate percentage of compliance of approximately 50%. Therefore, and based on this result, this study accepts the following hypothesis "***H_1*: *There is a significant negative relationship between EM and the proportion of independent members in board structure***". In contrast, the researcher documented a significant positive correlation between the average of external seats occupied by boards' members and discretionary accruals, at a significance level of ($P<0.05$). Indeed, this conclusion supports the "*busyness hypotheses*", which introduced such members as unqualified members to constrain accruals manipulation. However, this study accepts the following hypothesis "***H_2****: There is a significant positive correlation between EM and the average of external seats occupied by board members.*

In addition, non-duality managers were inversely correlated with opportunistic behaviours in accruals, with a significance level of ($P>0.10$). In general, this result does not support the expectation of the researcher. Thus, this research rejects the following hypothesis *"**H_3**: There is a significant negative relationship between non-duality managers and EM".*

In terms of board size, the results showed that large boards were more flexible to pass manager's opportunistic behaviour in comparison with small boards, and this was clear with a positive correlation with discretionary accruals at a significance level of ($P>0.10$). As a result, this finding does not support the researcher's expectation regarding this mechanism. Therefore, this study rejects this hypothesis "***H_4****: There is a significant negative correlation between board size and EM"*. Finally, board meetings were found to be negatively correlated with discretionary accruals, at a significance level of ($P<0.05$). This finding supports the formulated hypothesis, and agency theory as well. Hence, this research accepts the following hypothesis "***H_5****: There is a significant negative correlation between the number of board meetings and EM.*

Statistically speaking, the prior results in general support the researcher's expectations. They introduce boards of directors as an important tool for supporting the transparency of financial statements, by constraining the opportunistic actions in accruals. The results are in line with the agency theory proposition, which suggests a noticeable monitoring role by firms' boards in constraining any opportunistic behaviour that may affect principals' benefits (Chen and Zhang, 2014; Jamaludin *et al.*, 2015; Khalil and Ozkan, 2016; Monsif Azzoz and Khamees, 2016).

8.3.1.2 Audit Committee Characteristics and Earnings Management

In line with the agency theory, the researcher was motivated to investigate empirically the effectiveness of AC characteristics, in acting as a delegated body of firms' boards, to enhance the overall monitoring processes in firms (Chen and Zhang, 2014; Juhmani, 2017). Furthermore, Shanikat and Abbadi (2011) claimed that before activating the CG code in Jordan in 2009, accounting and finance departments were the main actors working on behalf of ACs. Therefore, a group of three main characteristics was selected to answer the research question regarding AC effectiveness (the existence of AC, the presence of independent members and the frequency of AC meetings).

Related to the AC existence, table (6-12) documented a positive association with accruals manipulation, at a significance level of ($P>0.10$). This result does not support agency theory, which expects that the presence of a separate AC in a firm's structure may protect shareholders' interests from being taken by opportunistic managers, since it is expected to control and monitor managers' behaviour (Chen and Zhang, 2014). However, institutional theory may be an appropriate theoretical framework to explain this contradictory result. This theory assumes that Jordanian firms have established separate ACs as a reaction to JSC pressure, which legislated these requirements in order to organize firms' structures and to enhance firms' monitoring policy (Meyer and Rowan, 1977).

Hence, since this conclusion contradicts the expectation of the researcher, so this study rejects the following hypothesis "***H_6****: There is a significant negative correlation between audit committee existence and EM"*.

Consequently, introducing independent members to serve on the AC was found to be negatively correlated with discretionary accruals levels, at a significance level of ($P<0.10$). This result, at least statistically, is in line with the general framework of agency theory, in which independent members will support the monitoring position of the AC and this will lead to minimisation of the information asymmetry problem (agency problem) (Chen and Zhang, 2014; Iqbal *et al.*, 2015).

Hence, this finding supports the research hypothesis and, therefore, this study accepts the following hypothesis "**H_7**: *There is a significant negative correlation between independent members within an AC and EM.*

Concerning the AC meetings, the obtained result does not support the research expectation of a significant negative correlation with discretionary accrual; alternatively, the researcher documented a negative, but not significant, effect of such a mechanism within the Jordanian context, at a significance level of ($P>0.10$). As a result, the researcher rejects the suggested hypothesis "**H_8**: *There is a significant negative correlation between the number of AC meetings and EM.*

In general, these results contradict the main expectation of the researcher, that an AC is an effective monitoring body for restricting managers' opportunistic behaviour, as the majority of the formulated hypotheses are rejected.

8.3.1.3 Ownership Structure and Earnings Management

On the other hand, blockholder owners supported the researcher's expectations. Indeed, it was found to be negatively correlated with discretionary accruals, at a significant level of ($P<0.05$). Consequentially, this study accepts the formulated hypothesis "**H_{12}**: *There is a significant negative correlation between blockholder ownership and EM".*

Moreover, institutional ownership reported a negative correlation with discretionary accruals levels, but with a significance level of ($P>0.10$). A suggested illustration could be derived from previous literature, which introduced different factors that may affect the monitoring of behaviour, such as ownership percentage or investment durations (Wang, 2014; Mehrani *et al.*, 2017). Therefore, institutional owners seem to behave passively about protecting shareholders' interests. Hence, the researcher rejected the related hypothesis "**H_9**: *There is a significant negative correlation between institutional investors and EM*".

Managerial ownership appeared as a weak monitoring tool within the Jordanian context, since the reported finding showed a statistically insignificant negative correlation, with discretionary accruals at a significance level of ($P>0.10$). Therefore, this result does not support the agency theory proposition, which assumed a significant effect of such owners in constraining EM. Hence this study rejects this hypothesis "***H₁₀:*** *There is a significant positive relationship between director's ownership and EM.*

Finally, and in line with previous investigations and the research expectation made regarding the effect of family on EM levels, the main result extracted from the secondary data analysis showed such firms to be fertile ground that support such a phenomenon. Therefore, this study accepts the following hypothesis "**H_{11}:** *There is a significant positive relationship between family firm ownership and EM.*

This section showed weak monitoring roles, in general, by the various types of ownership in Jordan as an emerging market. Different factors played crucial roles in contradicting the agency theory suggestion, which introduced concentrated ownership as a deterrent tool to align the interests between firms' agents and principals.

8.3.2 The Subjective Approach Findings (Questionnaire and Interviews)

As mentioned in Chapter One, this thesis aimed to evaluate the effectiveness of internal CG mechanisms and ownership in constraining accruals issues in Jordan, as well as to shed light on the techniques most frequently used to alter firms' earnings within the Jordanian context. To achieve these sub-goals, the researcher used a questionnaire survey supported by several face-to-face interviews to explore various groups' perceptions to achieve the above-mentioned goals. This section summarizes the findings extracted from the subjective approach.

8.3.2.1 Accruals Techniques

8.3.2.1.1 Questionnaires' Findings

Exploring participants' perceptions to determine the most frequently used techniques to alter firms' earnings was a sub-goal for this thesis. Therefore, the research sample covered four potential groups of participants (board members, AC members, external auditors and governmental employees). To achieve this goal, the study adopted this hypothesis:

H_1: *There is a crucial difference between the various groups of participants in terms of accruals approaches in Jordan.*

To test this hypothesis, the researcher prepared a separate section in the distributed questionnaires that represented a group of techniques that could potentially have a direct effect on accruals numbers.

The acquired results from the questionnaire supported the researcher's expectation by reporting a noticeable difference in the means between the four groups, according to the ANOVA test. The reported value of the ANOVA test presented statistical evidence that there were at least two groups of participants who recognized the frequency of using these mechanisms differently from the other groups.

However, according to the participants' answers, more than 70% of the targeted participants agreed or strongly agreed that the following approaches were the first choices of the Jordanian managers to alter firms' earnings: '**Altering depreciation policy'**, such as altering useful life or salvage value amounts (mean=3.708); '**Altering accounts receivable**', such as using an estimation for doubtful accounts (mean= 3.659) and the third option, '**Altering inventory amounts by changing valuation methods**' (FIFO and AVCO) (mean = 3.538).

Additionally, the Post-Hoc test was used to determine the differences between the groups. There was a significant difference between board of director's members, external auditors and government employees. One accepted explanation for these differences is that both external auditors and government employees recognized these techniques as manipulative actions that may be adopted to alter firms' financial positions, to send an implicit signal to firms' stakeholders or to mislead others. However, board members considered these techniques to be legal, and accepted techniques which could be used to enhance their firms' financial positions. This conflict in recognition may create this gap over the participants' recognition targeted in this study.

In a nutshell, the previous findings support the formulated hypothesis, by reporting significant differences between the targeted participants regarding accruals techniques.

8.3.2.1.2 Interviews' Findings

With regard to the interviews, the interviewees provided further statements that supported the questionnaire findings. Furthermore, both external auditors and governmental employees believed that Jordanian managers may resort to capitalizing on some expenses, rather than recognizing them as general or operational expenses.

In conclusion, in a context such as Jordan, where the protection rights are weak, the presence of high taxation rates and the existence of a high level of non-compliance with disclosure requirements (Qudah, 2011; Idris, 2012), it was expected to document the adoption of EM mechanisms to alter firms' earnings in order to achieve specific goals. This has been proven by previous studies, such as Jarar (2008); Halabi (2009); Qudah (2011), who have documented the presence of such mechanisms within the Jordanian context. Additionally, this is a logical response to the agency problem, by which motivated, opportunistic, directors take advantage of their positions and of the separation between management and ownership to achieve extra special benefits at the expense of minority shareholders (Fama and Jensen, 1983).

8.3.2.2 Internal CG Mechanisms & Ownership Structure and Earnings Management

8.3.2.2.1 Questionnaires' Findings

In order to acquire a deeper understanding of, and insight into, the effectiveness of internal CG and ownership in constraining manipulations in accruals, the researcher surveyed various participants to provide further evidence to achieve the research goal. Therefore, this research adopted this hypothesis:

H_2: *There is a crucial difference between the various groups of participants in terms of internal CG and ownership effectiveness in constraining EM issue in Jordan.*

The analysis of the collected questionnaires revealed statistical evidence that there was a significant difference among the four targeted groups concerning their evaluations of CG mechanisms and ownership structures effectiveness. Indeed, the ANOVA test supported this conclusion, by reporting a significant F-value, with a significance level of (P=0.000). Therefore, the previous finding supports the formulated hypothesis by reporting significant differences between the targeted participants regarding CG and ownership effectiveness.

Consequently, the questionnaire's results showed that 84.7% of the participants believed in the importance of reducing the availability of external seats offered to board members. Likewise, 68% of the participants considered the frequency of board meetings to be an important mechanism that may enhance the monitoring roles in Jordan. However, the presence of independent members, board size and the separation between the CEO and chair positions were recognized as ineffective monitoring tools. The recorded ranks of the mentioned mechanisms were 9, 8 and 10, respectively, out of twelve mechanisms.

With regard to AC effectiveness, the results covering the existence of a separate AC were contradictory and did not show a clear argument. Approximately 48.4% agreed or strongly agreed on the importance of establishing a separate AC in a firm’s structure, to enhance the overall monitoring roles in Jordanian firms. In contrast, 44.3% of the participants contradicted this requirement. One expected perception from the selected samples covered was among governmental employees (regulators), and such participants strongly believed in AC committees as monitoring bodies, since they were the responsible parties for enacting the required laws or codes to organize AC environments.

However, both external auditors and AC members did not support the regulators’ views, and this position was obvious in the means of their answers (3.000 and 2.5135, respectively). Institutional theory explains this position, by claiming that Jordanian listed firms have responded to this requirement as a form of pressure to avoid any unfavourable reactions raised by the regulators.

More than 64.2% of the participants agreed on the CG code suggestion that asked listed firms to hire independent members on the AC. In relation to the effect of AC meetings on its monitoring function, 63.5% of the groups recognised this mechanism as a useful tool to motivate AC members to discuss and monitor firms’ operations efficiently.

In general, the results contradicted the main expectations of the researcher, who had assumed a significant monitoring role in constraining accrual manipulation, since the first two mechanisms recorded moderate ranks in comparison with other mechanisms (the existence of AC rank=7 and the existence of independent members rank=6).

In comparison with board and AC characteristics, the participants considered ownership structure generally more effective in constraining opportunistic behaviour in accruals. This superior recognition was clearly presented in their averages of agreement and the reported rank values. The findings confirmed that 77.4% of the participants presented blockholder as an effective mechanism, with a reported rank of 2, directly after the internal CG mechanisms that supported reducing the external seats available for firms’ directors. In general, the participants reacted consistently regarding blockholders’ monitoring roles.

Additionally, the participants supported firms having remuneration packages, which consisted of shares bonuses for firms' managers, since 70% of the various groups of participants believed in the importance of such owners in adjusting the opportunistic behaviour of firms' managers, with a rank value of 3.

In the fourth rank, the participants classified the presence of institutional investors as one of the deterrent tools that had a direct role in constraining accruals actions within the Jordanian context, with an overall level of agreement of 58.3%.

8.3.2.2.2 Interviews Findings

Interestingly, the interviewees who participated in this research highlighted various factors that had a direct effect in hindering the CG code and ownership structure from being deterrent monitoring tools in Jordan, for instance:

1. The CG code was still in the preliminary phase in Jordan and under the general rule of '***comply or explain***'; therefore, such a new phenomenon needed more time and effort to be understood accurately by the different players in Jordan.
2. Recruiting criteria in Jordan lacked transparency and integrity in general, since other factors, such as favouritism, tribalism or political pressures, were the main criteria used to hire employees.
3. The Jordanian environment showed a reluctance in accepting the auditing concept in general, and in establishing diverse and experienced ACs in the listed firms on ASE, due to different factors (e.g. family firms).
4. The Arab Spring played a crucial role in reducing the efficiency of the CG code, since the Jordanian regulators were more flexible in tracking firms to adopt CG code.
5. There was a general weakness in employees' educational qualifications and the level of mental openness in coping with new regulations, such as the CG code.
6. In general, investors in the Jordanian market lacked the required investments' experience, knowledge and awareness, which meant that their monitoring responsibilities were still ambiguous.
7. The duration of investment plans, investment percentage and type of investors were the main factors that had a significant effect on supporting or challenging the effectiveness of ownership structure in constraining accruals manipulations.

8. There was an absence of protection laws that, through which job security could be available for AC members or independent members, and support them in practicing their monitoring tasks efficiently.

8.4 Contributions

This section discusses the main contributions of this research with regard to methodology and theory. In terms of the methodological contributions, this study covers various dimensions, such as sample selection, measures of discretionary accruals and measures of CG mechanisms and ownership structure. This study also has theoretical contributions, in that it is expected to add to agency theory and the institutional theory framework.

8.4.1 Methodological Contributions

This study adopted a mixed-methodology approach to achieve the objective mentioned in chapter one, while most of the previous initiatives such as Abed *et al.* (2012); Hamdan *et al.* (2013); Al-Amarneh (2014); Abbadi *et al.* (2016); Alzoubi (2016); Alzoubi and Alzoubi (2016); Monsif Azzoz and Khamees (2016); Ramadan (2016) adopted one-method (regression approach) to examine the relationships between CG and EM. To the researcher's knowledge, this study will be the first study to adopt this type of methodology in the Jordanian emerging-market context. This thesis used the triangulation concept to collect the required data to answer the main questions formulated in this research. The sources of the data were secondary data analysis, questionnaires and face-to-face interviews. Interestingly, this methodology is expected to overcome the main shortages attached to the Jordanian context, which are non-compliance with disclosure requirements and weak protection laws.

Additionally, this study contributes to the current literature through the selected samples covered in both adopted approaches. In terms of the secondary data, this study covered all non-financial listed firms on the ASE between 2009 until 2014. Previous investigations showed a rareness in covering all non-financial firms. Indeed, most previous studies such as Abed *et al.* (2012); Fodio *et al.* (2013); Al-Amarneh (2014); Alves (2014); Chi *et al.* (2014); Kumari and Pattanayak (2014); Almasarwah (2015); Alzoubi and Alzoubi (2016); Monsif Azzoz and Khamees (2016); Wan Mohammad *et al.* (2016) focused on one sector, such as the service sector, industrial sector, technology sector or financial sector. Therefore, this study contributes to the previous studies by carrying out an empirical investigation to evaluate the effectiveness of internal CG mechanisms and ownership structures in constraining accruals manipulations, targeting 134 non-financial firms and covering two different sectors in the emerging market (Jordan).

This research contributes to the current literature by providing further evidence regarding new CG variables, such as external directorships or the presence of AC within the context of an emerging market; such evidence is not available in such contexts. Therefore, this will enhance the quality of CG literature in general.

With regard to the time horizon, previous investigations covered short periods for their studies. Some studies such as Klein (2002); Sarkar *et al.* (2008); Abed *et al.* (2012); Baccouche and Omri (2014); Kumari and Pattanayak (2014); Ianniello (2015); Alzoubi and Alzoubi (2016); Juhmani (2017) focused on short periods, such as one year, two years or three years in the best circumstances. However, in such studies that aim to evaluate CG effectiveness in enhancing the quality of financial reports, CG phenomenon needs a longer period of observation to capture the real changes made in firms' structures, for example, or to reflect the CG requirement accurately (Chen and Zhang, 2014). In order to offer a free space for firms and other interested groups to understand some of the requirements, such as independence. Therefore, and in line with Chen and Zhang (2014) suggestion, and in order to cover this shortage, this study covered six financial years, from 2009 to 2014.

In terms of CG measurements, previous studies, especially in Jordan, such as Hamdan *et al.* (2013); Alzoubi and Alzoubi (2016) have either used dummy variable techniques to estimate mechanisms such as independence, or applied ready indexes of CG that have been formulated based on other contexts and settings. These indexes may be valid in developed markets, which are characterized by high levels of compliance with disclosure laws and the presence of strong protection rights, but not in Jordan, where the situation is completely different. Therefore, this research introduces new evidence to the current literature by using valid ratios and methods to estimate CG mechanisms. This, in turn, will help the researcher to compare his results obtained from the main regression with the current related studies that have applied the same approaches.

This research used the Jordanian context to answer the research questions, as outlined previously. The novelty of this context is that the CG code is practiced under the general rule of '*comply or explain*' in comparison with, for instance, the US context, in which the adoption is compulsory and the misconducting firms will be subject to different forms of fines. Therefore, this study offered a great opportunity for the researcher to explore implicitly the perceptions and awareness of the different interested groups which have a direct effect on CG adoption in Jordan.

The questionnaire survey and face-to-face interviews covered four sub-groups of respondents (i.e. board members, AC members, external auditors and governmental employees). One logical explanation for this selection is that these groups were directly engaged in supporting the success of CG adoption in any context. Hence, exploring their perceptions may have led to valid conclusions regarding the effectiveness of CG mechanisms in constraining managers' opportunistic behaviour. Indeed, none of the previous investigations mentioned in the prior literature targeted the regulators to explore their perceptions regarding CG effectiveness in constraining EM. Therefore, this is considered to be a sub-methodological contribution which is expected to add to the current literature by adding new insights about CG from different perspectives.

Additionally, within the Jordanian context, this study is considered the first study that employ a questionnaire technique to evaluate the effectiveness of CG and ownership structure monitoring roles in constraining EM technique in Jordan, since previous studies such as Abed *et al.* (2012); Idris (2012); Hamdan *et al.* (2013); Al-Amarneh (2014); Abbadi *et al.* (2016); Alzoubi (2016); Alzoubi and Alzoubi (2016); Monsif Azzoz and Khamees (2016); Ramadan (2016) used regression approach to investigate the effectiveness of CG mechanisms in constraining EM issue in Jordan. Therefore, this study contributes to current literature by providing a different point of view in terms of CG effectiveness in constraining EM by targeting social actors' perceptions regarding the research problem.

8.4.2 Theoretical Contributions

The literature review chapter provided empirical evidence that agency theory was the main theoretical umbrella for previous investigations (Chen and Zhang, 2014; Amos *et al.*, 2016; Owusu and Weir, 2016; Mehrani *et al.*, 2017). Moreover, these initiatives documented the presence of potential connections between accruals manipulations and internal CG mechanisms. In terms of specific characteristics, some researchers have adopted other theories, such as the stewardship theory, institutional theory, resource dependency theory and others, to formulate or justify their research hypotheses (Alghamdi, 2012; Owusu and Weir, 2016). Within the scope of this topic, the most popular and used theory was agency theory, since this theory explains the roots of managers' opportunistic behaviour, which initially presents itself as a response to the separation between firms' control and ownership (Fama and Jensen, 1983; Khalil and Ozkan, 2016). Theoretically speaking, firms should devote and allocate effort and resources (agency costs) to reducing this conflict of interests, in order to protect shareholders' interests (Chen and Zhang, 2014) .

Hence, establishing a board of directors composed of independent members, non-duality directors and experienced directors, and creating various qualified sub-committees such as ACs or remunerations and nomination committees were the main suggestions made by the agency theory (Mallin, 2011; Ianniello, 2015; Khalil and Ozkan, 2016; Wan Mohammad *et al.*, 2016; Juhmani, 2017), in order to improve the quality of financial figures. Such crucial suggestions seem to be suitable and appropriate for organized markets that have deterrent protections laws and a good compliance percentage with disclosure requirements which will help in protecting minority shareholders (Man and Wong, 2013).

Significantly, the majority of previous studies that have covered the CG and accruals issues have adopted such a proposition to formulate their research questions in different contexts (Abbadi *et al.*, 2016; Alzoubi, 2016; Alzoubi and Alzoubi, 2016; Monsif Azzoz and Khamees, 2016; Ramadan, 2016; Juhmani, 2017), thereby ignoring the presence of a contradictory theory, 'institutional theory', which may have logical explanations that justify the weakness of CG effectiveness in some contexts, such as emerging markets (Alghamdi, 2012; Owusu, 2012; Owusu and Weir, 2016) .

Under the institutional theory framework, institutions or firms may adopt any new legislated laws or regulations as a response to regulatory or stockholders' pressures, or to imitate other successful firms (Meyer and Rowan, 1977; Owusu and Weir, 2016).

The main difference between this research and the previous literature is the adoption of several contradictory theories (i.e. agency theory, resource dependency theory, stewardship theory and institutional theory) in justifying and interpreting the obtained results within the Jordanian market. Institutional theory and stewardship theory may be more appropriate for justifying the results, since some social, political and cultural factors may impact the effectiveness of CG mechanisms in constraining opportunistic actions in accruals (Ball *et al.*, 2000; Man and Wong, 2013; Owusu and Weir, 2016).

Additionally, this study contributes to the current literature, especially within the emerging markets, that institutional theory is more valid for, and appropriate in, such contexts because no harmful consequences of the agency problem are expected to be found. The fact that most listed firms in such markets are located under the family firms' framework means that the principals hold the agents' tasks and responsibilities concurrently, and this may weaken the adoption of agency theory in such contexts.

In other words, under this conflict of interests (horizontal-type), institutional theory has a competitive theoretical position for explaining the monitoring behaviour of family firms' directors in comparison with agency theory, which lacks the ability to consider the effects of other factors, such as social, cultural and political, in supporting or challenging the effectiveness of the monitoring tools in general.

To support the previous argument, the interviews presented several significant factors, such as favouritism, tribalism, political factors (Arab spring), personal lack of experience and poorly educated employees, which had noticeable negative effects on CG effectiveness in general, and independence specifically. Adopting only the agency theory may not lead to valid interpretations of the correlations between accruals manipulations and CG mechanisms. In such a situation, institutional theory appears to be a radical solution to interpreting the findings (Alghamdi, 2012; Owusu and Weir, 2016).

In summary, most previous key studies in both developed and less-developed markets have adopted agency theory as the main theory to achieve their investigations' goals, without relying on a complementary theory, such as institutional theory. Likewise, several studies in Jordan have adopted the agency theory proposition to interpret their findings in a context in which institutional theory is more appropriate (Abed *et al.*, 2012; Hamdan *et al.*, 2013; Al-Amarneh, 2014; Al Sawalqa, 2014; Riesheh, 2014; Abbadi *et al.*, 2016; Alzoubi and Alzoubi, 2016; C.B.O.J, 2016; Monsif Azzoz and Khamees, 2016).

Therefore, this study, and in line with other studies such as Alghamdi (2012) and Owusu and Weir (2016) considered the effects of the institutional, stewardship, resource dependency and agency theories in exploring the effects of CG and ownership structure in constraining accruals manipulations to avoid any weakness in interpreting the results.

8.5 Implications of the Study

This part discusses the practical implications that may interest various groups, such as regulators, external auditors, firms' principals, and academic staff, in Jordan.

The results of this research have distinctive implications for the Amman Stock Exchange (ASE) and the Jordanian Securities Commission (JSC), as regulators in Jordan. The main goal of such regulators is to organize the Jordanian market by enacting the required laws and codes, such as the CG codes, to improve the integrity of the financial statements of the Jordanian listed firms, in order to protect shareholders' interests from opportunistic managers. Therefore, the findings of this research are expected to give the regulators empirical evidence that shows the main weakness points of such a code within the Jordanian context. Adopting the mixed-methodology approach offers significant implications for the ASE and JSC regarding the main challenges that impair CG effectiveness in Jordan. Some of these obstacles were tribalism, the Arab Spring and favouritism; therefore, these bodies can support shareholders' goals by taking into consideration the effects of such issues when legislating future CG codes.

Additionally, this study explained the main adopted techniques used by listed firms to alter accruals levels. This may help such regulators to legislate or to improve laws in the light of these techniques, in order to constrain its prevalence in Jordan.

Interestingly, this research provides practical evidence that the auditing concept is still unaccepted by family firms in Jordan, since they do not see any feasibility, for example, of establishing a qualified AC in their firms, for many reasons. However, even if they created such a committee, its roles would still be ambiguous for family firms. This has weakened the overall monitoring functions of such committees; therefore, this study provides significant evidence for the regulatory bodies in Jordan to enhance and improve the requirements that organize the auditing concept in general.

As a result, the regulators should be motivated to enact the required laws and regulations in addition to improving the CG code to constrain the prevalence of such techniques in Jordan and to promote the Jordanian context as a safe investment environment. The ASE & JSC may take advantage of these findings to legislate local regulations and laws, based on the Jordanian setting and conditions, to guarantee a real adoption of these requirements, rather than imitating other firms or purposefully disclosing counterfeit information.

External auditors may be interested in recognizing the most frequently used techniques to alter firms' earnings, based on different perspectives, such as board members, AC members and regulators in order to adjust their auditing policies to cope with the Jordanian environment and to provide professional services for their clients. Furthermore, the main findings of this study showed ineffective monitoring behaviours of ACs in general for many reasons. Hence, external auditors may consider this weakness in their communications with internal ACs to devote more effort and resources to checking the accuracy of the provided information from such committees.

In terms of shareholders' implications, the main findings are expected to enhance their awareness levels regarding accruals techniques used by Jordanian managers to alter firms' earnings. By doing so, firms' shareholders may be influenced to change their regular monitoring policies and to adopt more rational and valid polices to protect their interests in the firms.

Additionally, firms' shareholders need to understand and evaluate the effectiveness of the adopted monitoring techniques in their firms, especially if they are considered as minority shareholders, since firms' disclosures do not necessarily reflect their current monitoring positions. Indeed, minority shareholders need to recognize the validity of the CG mechanisms in their firms, in order to take serious decisions that may activate these mechanisms, by solving or reducing the effects of some obstacles mentioned in the interviews.

Finally, the main results of this research also provide significant implications for the academic field in Jordan, by providing empirical evidence about the prevalence of accruals manipulations there. Therefore, this may motivate them to make further investigations into this issue, by employing different methodologies, models or variables to constrain such opportunistic issues from being used widely by listed firms. In addition, the reported results provide motivation for academic staff in the Jordanian universities to investigate CG effectiveness in enhancing the overall monitoring processes, since these findings revealed some obstacles that hindered such a code from having a significant monitoring role in Jordan. It should be useful to academics to make further, deeper investigations into these obstacles in order to present radical solutions that will enhance CG effectiveness.

8.6 Limitations

Jordan is classified as an emerging market and several factors may affect the process of conducting any research, due to different factors. However, the scope of this research widens the overall knowledge on CG and accruals manipulations and provides empirical evidence on the effectiveness of CG in constraining accruals in Jordan. Additionally, it enhances awareness of the levels of accruals techniques used in Jordan and provides additional information regarding the main obstacles that weaken CG effectiveness.

However, all social studies have some limitations, and this research has some limitations as well. In order to draw a clear view of the main limitations of this research, the researcher will explain these limitations, starting with the Objective approach and then the Subjective.

8.6.1 The Objective Approach Limitations (Secondary Data)

This study evaluated the effectiveness of CG and ownership structure in constraining EM, based on 134 non-financial listed firms on the ASE between 2009 and 2014. However, the following are the main limitations of this phase:

1. This study adopted the opportunistic theme of accruals in formulating the research problem and research hypotheses, rather than taking into consideration the other scope of accruals, in which it could be used beneficially to achieve shareholders' goals. This may affect the interpretation of the main findings and conclusions.
2. Firms with limited disclosures in terms of accruals numbers, ownership structure or CG mechanisms were removed from the final sample.
3. Limited discloser regarding foreign ownership constrained the researcher ability to consider this type of ownership in this thesis. Therefore, this study covered four main types of ownerships in Jordan.

4. In general, extracting the required data to evaluate AC effectiveness was not an easy task for the researcher, since most of the service firms did not disclose this data explicitly in their annual reports. Instead, the researcher had to download more documents to collect the required data.
5. The accruals models used in this research gave a low level of explanation in terms of explaining the relationships between accruals levels and the monitoring tools. Therefore, this issue opens the door for other variables which may have crucial effects on enhancing the effectiveness of the monitoring tools.
6. The financial institutions, covering banks, insurance firms, and any other financial firms, have been ignored, since these firms have completely different operational environments and requirements that may affect the validity of the obtaining findings.
7. Collecting the data for the years 2009 and 2010 was very difficult, especially in terms of the CG disclosures, since some listed firms did not disclose some information regarding, for example, independent members' names or AC existence.
8. Several annual reports and firms' documents were unorganized and unstructured. Therefore, the researcher had to contact the disclosure department at the ASE to get further clarification regarding these firms.
9. Since no database was available for the Jordanian market, the researcher had to collect the data manually. This lessened the opportunity to cover other variables, since there was a general weakness in the CG disclosure in the annual reports covered in this research. Therefore, the researcher was restricted to the published data to achieve his research goals.
10. The researcher had to recalculate the values related to some variables manually (e.g. (gross PP&E) or total accruals (cash-flow approach), since these numbers, either in net or gross, were not available in firms' disclosures, the ASE website or any other websites. This situation was time consuming for the researcher.
11. Previous literature, in terms of discretionary accruals' calculations, presents various models to estimate EM levels, and such a diversity of models creates inconsistency in the obtained findings. This disharmony in the results was found between the main model used in this research and other models which were applied to check the robustness of the obtained results. Therefore, this may limit

the probability of generalising the extracted findings regarding the effectiveness of the monitoring tools in Jordan.

12. Making a distinctive conclusion regarding the research findings is limited to the industrial and service sectors. Such results may not be appropriate and valid for financial sectors, such as banks or insurance firms.
13. This study tried to overcome the main weaknesses observed in previous investigations regarding the sample period by choosing six financial years (2009–2014). Future research may extend or update this period to cover recent years, such as 2015, 2016 and 2017. By doing so, researcher may have an opportunity to capture more accurately the effects of CG in enhancing financial report quality.
14. This thesis focused on a total accruals approach to estimate total accruals as an index of mangers' opportunistic behaviour. Such an approach has various weaknesses, and considering other approaches (real earnings management) to estimate managers' opportunistic behaviour may be useful to offer better and diverse findings for interested users.
15. In spite of the fact that some of the selected variables failed to achieve the requirements of parametric analysis, the researcher applied a set of parametric tests to analyse the collected data to achieve the thesis goals.

8.6.2 The Subjective Approach Limitations (Questionnaire and Interviews)

This research adopted the mixed methodology approach, the subjective aspect of which consisted of interviews and questionnaire surveys. Likewise, these are the main limitations of such approaches based on this study:

1. In terms of the questionnaires, the researcher had to prepare the first draft in English and then translate it into Arabic, since all the participants spoke Arabic, specifically "*colloquial idioms*". Therefore, the researcher tried to simplify the questionnaire as much as he could to achieve his research goals. This might have affected the questionnaire validity.
2. The researcher started his data collection during ***Ramadan*** month, and this has constrained his ability to conduct more interviews with the targeted participants.
3. This type of survey is located under the subjective stand, which relies mainly on social actors' perceptions to evaluate a specific issue. Therefore, the presence of social phenomena is not independent from the social actors' propositions (Burell

and Morgan, 1979). Hence, this part of the methodology may not provide valid or reliable evidence to interpret a specific phenomenon in a specific context. Thus, the generalisability of the obtained findings is limited to the research scope or sample.

4. In general, these approaches may show some systematic biases, in terms of participants' answers or the consequence of conducting such approaches to collect the required data.
5. Since the researcher was limited by some financial and time restrictions, he was able to distributed 320 copies of the questionnaire (134 collected questionnaires') covering four sub-groups of participants. In general, this is a small sample for such an investigation, aiming to explore participants' perceptions regarding CG effectiveness in enhancing the overall monitoring process. Indeed, this small sample may not represent the overall targeted non-financial firms, and this may limit the generalizability of the findings.
6. In addition, most of the participants were not qualified to participate in this survey, because they were not experienced or knowledgeable enough about the CG and accrual manipulations issues. Therefore, this limited the researcher's ability to cover a representative sample of the research population.
7. Being familiar with the Jordanian environment, the researcher prepared a questionnaire that achieved the research goals and, at the same time, attempted to be short enough to avoid any invalid or incomplete answers by the participants, since some of them could become bored by completing long questionnaires.
8. Some participants provided illogical and invalid answers. Therefore, the researcher had to remove thirteen copies of the questionnaire, leaving a total of 134 valid questionnaires in the final analysis.
9. The researcher was able to conduct only 12 valid interviews during the data collection trip. This may restrict generalizing the results to other companies or sectors. However, this is normal in such approaches.
10. The study targeted four different groups of respondents, which may have caused some conflict of interests between the participants, since each group would be motivated to present his/ her self as an experienced in this area and that their opinions were always correct.
11. During the interviews, the researcher noticed that some participants were inclined to provide exemplar answers or reactions, since they considered the research topic

to be a sensitive one, and that providing real answers may cost them their jobs. Therefore, the researcher excluded two of the interviews because the participants were very reticent in their answers.

12. Similar to the secondary data limitations, the researcher conducted these interviews with specific participants who worked within the non-financial sectors, and this sample may not represent the whole population of the ASE, since it excluded financial sectors such as banks, insurance firms and other non-financial firms. Therefore, this sub-sample may not be a representative one to generalize these findings as deterministic conclusions in Jordan.

8.7 Suggestions for Future Investigations

The field of this research was focused on corporate governance and accruals topics in Jordan. However, this study has covered only a small area of investigation that could be conducted in Jordan. There follows some suggestions to expand the scope of this study, to cover more areas and to overcome some of the limitations mentioned above.

1. The first suggested avenue is to explore the effects of internal CG mechanisms and ownership structures in constraining real-earnings management, since this study estimated EM by calculating accruals levels. This will offer a better opportunity to evaluate the effectiveness of monitoring tools, based on different measurements, and the evaluation will be more valid and accurate.
2. This study covered non-financial listed firms on the ASE. Therefore, upcoming investigations should be carried out within the financial sectors to cover banks and insurance firms to get more insight into the monitoring behaviour of the CG code.
3. This study recommends that researchers use other measurements of total accruals, such as the balance sheet approach or working capital approach, since this study adopted the cash flow approach, based on (Hribar and Collins, 2002)s' recommendation. They presented such an approach as a more valid and reliable technique in comparison to the balance sheet approach. This suggestion offers comprehensive evidence that would evaluate the feasibility of applying the accruals approach within the Jordanian context.
4. This study covered a sample of listed firms between 2009 and 2014, during which time CG was a new phenomenon in Jordan and needed more time to be understood

efficiently by the various groups. Therefore, future investigations should consider extending the periods to cover recent years, to overcome the weakness of this preliminary stage in Jordan.

5. A comparative study is suggested to be conducted by the Jordanian researcher to cover two sub-periods, before, and after, activating CG in 2009. Such a suggestion may provide detailed information and evidence regarding CG effectiveness in Jordan, by comparing the results between the two different periods.
6. Additionally, this study used four types of ownership to evaluate their monitoring roles in Jordan, with a minimum percentage of ownership of 5%. In this vein, future research is recommended to focus on classifying ownership percentages into different levels of ownership to determine the effective level of ownership.
7. This study ignored the duration of investment plan. Therefore, dividing future samples, based on the duration, will enhance the literature regarding the effectiveness of ownership in improving the overall monitoring process.
8. Further investigation is needed to cover more characteristics of the board of directors' mechanisms, such education levels, qualifications, experience and gender, in order to obtain better comprehensive evidence to evaluate board monitoring roles.
9. Concerning board sub-committees, it is very important to cover more characteristics, such as size, financial experience and members' certificates and knowledge, to evaluate AC roles in enhancing report quality.
10. The researcher suggests that extended research should be carried out to cover remuneration and nomination committees, to provide distinctive evidence that explains the effectiveness of such committees in enhancing firms' performances and monitoring processes.
11. It would also be beneficial to explore the relationships between the CG mechanisms and firms' performances, by concentrating on firms' performances as a dependent variable.
12. Focusing on a qualitative approach seems to be an appropriate methodology to explore CG effectiveness within the Jordanian context. Therefore, the researcher suggests further investigations through this approach to get deeper and more valid answers to evaluate the CG code.
13. Adopting the beneficial theoretical framework to investigate the effectiveness of the CG and ownership structure is highly recommended, since such a research

position may provide further results in which the historical results or conclusions could be changed.

8.8 Recommendations

This research has provided distinct evidence that Jordanian managers have practiced discretion over financial reports in order to alter firms' earnings. Based on the results reported in chapters six and seven, the researcher suggests the following recommendations, which may support regulators' efforts to enhance the monitoring tasks of the monitoring tools in Jordan.

1. The future sanctions theme of CG violation should be more restricted in comparison to the current levels of fines, since 500 pounds is the fine for violating the CG requirements in Jordan.
2. Jordanian regulators should conduct various national campaigns to introduce and explain the CG codes to interested parties, to avoid the ambiguity of this preliminary phase.
3. A separate committee (Royal committee) should be created, consisting of foreign and trusted members to carry out significant inspections steps to check firms' disclosures and to guarantee a valid and effective adoption of the CG recommendations, rather than the current situation, in which uncorroborated disclosures are available.
4. The ASE and JSC must evaluate the monitoring performance of the Social Security Corporation's representatives in every corporation listed in the ASE. This is crucial, as there is a notable deficiency in their monitoring roles, due to their recruitment policy, which is believed to be based on personal or mutual interests rather than qualifications and capability.
5. Companies' law and disclosure law should be modified to become more binding for the enlisted firms in ways that improve the quality of the disclosures which appear in financial reports. Laws needed to protect minorities' rights should also be activated.
6. The CG codes, based on the Jordanian settings and conditions, should be put into legislation, and consideration of social, political and cultural factors should be made in order to guarantee real compliance.

7. The service sector disclosures should be focussed on to enhance CG effectiveness, since the CG mechanisms behaved passively in constraining the EM phenomenon in comparison to the industrial sector, which seems to be more organized, at least statistically, in constraining such an issue.
8. A variety of workshops should be held, especially within the context of family firms, to increase the awareness levels in terms of the importance of such codes.
9. A range of laws and regulations should be introduced to protect AC members and independent members, to minimise boards' hegemony over their monitoring roles and to protect their job security.
10. A number of workshops and training courses should be held to explain the auditing concept and how it affects the transparency and accuracy of financial statements, in order to protect minority shareholders' interests from being expropriated by major shareholders.
11. Jordanian universities should be supported in considering making CG courses compulsory, in order to explain this concept to undergraduate students, so they will be experienced, knowledgeable staff members in their future employment.
12. The Jordanian Association of Certified Public Accountants (JACPA) should become a legal umbrella for all accountants and auditors, to protect their rights and to support their monitoring roles within the Jordanian context.

Appendices

Appendix 1

Firm Name	Firm Name
Industrial Sector	
THE INDUSTRIAL COMMERCIAL & AGRICULTURAL	FIRST NATIONAL VEGETABLE OIL INDUSTRIES
Prime Business	JORDAN VEGETABLE OIL
JORDAN CHEMICAL INDUSTRIES	FIRST NATIONAL VEGETABLE OIL
COMPREHENSIVE MULTIPLE PROJECT	Afia Oli
Universal Chemical Industries	JORDAN CERAMIC INDUSTRIES
INDUSTRIAL INDUSTRIES	GENERAL MINING CPMPANY
JORDAN INDUSTRIAL RESOURCES	ARAB ALUMINIUM INDUSTRY
THE ARAB PESTICIDES & VETERINARY	NATIONAL STEEL INDUSTRY
INTERMEDIATE PETROCHEMICALS	JORDAN PHOSPHATE MINES
NATIONAL CHLORINE INDUSTRIES	THE JORDAN CEMENT FACTORIES
NATIONAL CABLE & WIRE	THE ARAB POTASH
MIDDLE EAST SPECIALIZED CABLES	JORDAN STEEL
ARAB ELECTRICAL INDUSTRIES	NATIONAL ALUMINIUM INDUSTRIAL
MIDDLE EAST COMPLEX FOR ENG.,	INVESTMENTS & INTEGRATED
THE JORDAN PIPES MANUFACTURING	INTERNATIONAL SILICA
JORDAN WOOD INDUSTRIES JWICO	TRAVERTINE COMPANY LTD
READY MIX CONCRTE AND	ARAB COMPANY FOR INVESTMENT
RUM ALADDIN INDUSTRIES	JORDAN PAPER & CARDBOARD
ARABIAN STEEL PIPES	PEARL- SANITARY PAPER
AL-QUDS READY MIX	AL-EKBAL PRINTING
Asas for concert	UNION ADVANCED INDUSTRIES
GENERAL LIGHTWEIGHT CONCRETE	DAR AL DAWA DEVELOPMENT &
Al-Janoub Filters	ARAB CENTER FOR PHARM
JORDAN POULTRY PROCESSING &	MIDDLE EAST PHARMA. & CHMICAL
JORDAN DAIRY	THE JORDANIAN PHARMACEUTICAL MANUFACTURING
JORDAN CERAMIC INDUSTRIES	HAYAT PHARMACEUTICAL
GENERAL INVESTMENT	PHILADELPHIA
AL-QARIA FOOD & VEGETABLE	THE JORDAN WORSTED MILLS
UNIVERSAL MODERN INDUSTRIES	EL-ZAY READY WEAR
NATIONAL POULTRY	ARAB WEAVERS UNION COMPANY
THE ARAB INTERNATIONAL FOOD	JORDAN CLOTHING COMPANY
NUTRI DAR	AL-EQBAL INVESTMENT COMPANY
Service Sector	
JORDANIAN DUTY FREE SHOPS	JORDAN PETROLEUM REFINERY
JORDAN INTERNATIONAL TRADING	SPECIALIZED JORDANIAN
JORDAN TRADE FACILITIES	BINDAR TRADING & INVESTMENT
SPECIALIZED TRADING & INVESTMENT	OFFTECHOLDING GROUP PLC
SOUTH ELECTRONICS	NOPAR FOR TRADING AND
COMPREHENSIVE LEASING	ENJAZ FOR DEVELOPMENT
AL-ZARQA EDUCATIONAL &	THE ARAB INTERNATIONL FOR

ITTIHAD SCHOOLS	AL-ISRA FOR EDUCATION
PETRA EDUCATION	PHILADELPHIA INTERNATIONAL
AL-BILAD MEDICAL SERVICES	THE CONSULTANT & INVESTMENT
INTERNATIONAL FOR MEDICA	JORDAN HOTELS & TOURISM
ARAB INTERNATIONAL HOTELS	JORDAN HIMMEH MINERAL
AL-TAJAMOUAT FOR TOURISTIC	MEDITERRANEAN TOURISM
ZARA INVESTEMENT HOLDING	AL- SHARQ INVESTMENTS PROJECTS
AL-DAWLIYAH FOR HOTELS & MALLS	JORDAN PROJECTS FOR TOURISM
WINTER VALLEY TOURISM	JORDAN PRESS FOUNDATION/AL-
JORDAN PRESS & PUBLISHING/(AD-	BATELCO JORDAN
JORDAN TELECOM	AL-FARIS NATIONAL COMPANY FOR
JORDAN NATIONAL SHIPPING LINES	SALAM INTERNATIONL TRANSPORT
TRUST INTERNATIONAL TRANSPORT	UNIFIED TRANSPORT & LOGISTICS
JORDAN EXPRESS TOURIST TRANSPORT	JORDAN INVESTMENT
TRANSPORT& INVESTMENT BARTER	ALIA- THE ROYAL JORDANIAN
ROYAL JORDANIAN AIR ACADEMY	MASAFAT FOR SPECIALISED
JORDAN ELECTRIC POWER	IRBID DISTRICT ELECTRICITY
CENTRAL ELECTRICITY GENERATING	NATIONAL PETROULEUM
REAL ESTATE DEVELOPMENT	THE REAL ESTATE & INVESTMENT
ARAB EAST FOR REAL ESTATE	INT'L ARABIAN DEVELOPMENT AND
JORDANIAN REALESTATE COMPANY	AMAD INVESTMENT & REAL ESTATE
IHDATHIAT CO-ORDINATES	EMMAR INVESTMENTS
METHAQ REAL ESTATE INVESTMENT	CONTEMPRO FOR HOUSING
ZAHRAT ALURDON REAL ESTATE AND	MIDDLE EAST DIVERSIFIED
JORDAN INTERNATIONAL INVESTMENT	COMPREHENSIVE LAND
AD-DULAYL INDUSTRIAL PARK & REAL	ALSHAMEKHA FOR REALESTATE
RESOURCES COMPANY FOR	JORDAN DECAPOLIS PROPERTIES
UNION LAND DEVELOPMENT	SPECIALIZED INVESTMENT

Appendix 2

UNIVERSITY OF Southampton

جامعة ساوثمبتون

كلية الاعمال-قسم المحاسبة

ساوثمبتون-بريطانيا

إستبيانة حول

دور آليات حوكمة الشركات الداخلية في الحد من ممارسات إدارة الارباح في الأسواق الناشئة: دليل من الأردن

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تحيه واحترام......

يقوم الباحث بإجراء بحث لدراسة دور اليات حوكمة الشركات الداخلية في الحد من ممارسات إدارة الأرباح في السوق الأردني. ويعتبر هذا البحث جزء رئيسيا من متطلبات درجة الدكتوراه في جامعة ساوثهمبتون، علما بأن الباحث طالب دكتوراه في مستوى السنة الثانية في قسم المحاسبة- جامعة ساوثهمبتون. هذه الاستبانة تهدف إلى أخذ آراء مجموعة مختلفة من الأشخاص ذوي الخبرة في مجال إدارة الأرباح وحوكمة الشركات وذلك من أجل تقويم دور هذه الاليات في الحد من في السوق الأردني.

قد تم اختياركم للمشاركة بهذا الإستبيانة نظرا لما تتمتعون به من خبره في مجال هذه البحث والتي من المتوقع ان تساهم في دعم الدراسة الحالية، مما يساهم في تطوير سوق عمان المالي بشكل أفضل وذلك لضمان وتوفير بيئة إستثمارية آمنة للمستثمرين.

أخيرا، اود التأكيد على علما أن جميع البيانات وآرائكم الشخصية سيتم التعامل معها بصورة سرية ولن يسمح لأي شخصي غير الباحث إمتثالا لأخلاقيات البحث العلمي المنصوص عليها في دليل الباحث لجامعة ساوثهمبتون باستخدام هذه البيانات وتفضلوا بقبول فائق الاحترام.

هذا الاستبيان يتكون من أربعة أجزاء رئيسية ومدة الاجابة لا تتجاوز الخمسة عشر دقيقة. أرجو الاجابة عن جميع الاجزاء.

الجزء الاول: المعلومات العامة

هذا الاستبيان يتكون من أربعة أجزاء رئيسية ومدة الاجابة لا تتجاوز الخمسة عشر دقيقة. أرجو الاجابة عن جميع الاجزاء.

1.1 ما هو منصبك الوظيفي الحالي:

عضو مجلس ادارة	عضو لجنة تدقيق	مدقق خارجي	جهة حكومية

2.1 ما هي مؤهلاتك العلمية الحالية:

دبلوم	بكالوريوس	ماجستير	دكتوراه	غير ذلك

أرجو التحديد إذا كانت غير ذلك: ....

3.1 ما هي مدة خبرتك\ خدمتك في هذا المنصب الوظيفي؟

أقل من عام واحد	1-5 اعوام	6-10 اعوام	11- 15 اعوام	أكثر من 15 عاما

4.1 ما هي الشهادات المهنية التي حصلت عليها؟

CPA	CMA	JCPA	لا يوجد	اخرى

أرجو التحديد إذا كانت غير ذلك: ....

الجزء الثاني: اليات إدارة الارباح

تشير أدبيات الدراسات السابقة والمتعلقة أساليب إدارة الأرباح الى وجود العديد من الطرق التي يمكن استخدامها من قبل أعضاء مجلس الادارة للتأثير على نتائج الشركة النهائية والمتمثلة بأرباح الشركة. لذلك وبناءا على خبرتك يرجى ابداء رأيكم الكريم في مدى استخدام هذه الممارسات في البيئة الأردنية.

	أساليب ادارى الارباح	غير موافق بشدة	غير موافق	لا أعلم	موافق	موافق بشدة
1	التأثير على قيم المخزون من خلال تغير طرق التقييم (FIFO or Average Cost Approach)					
2	التأثير على قيم حساب المدينون من خلال تغيير نسبة الخصم او مدة الخصم.					
3	التأثير على سياسة استهلاك الاصول الثابتة من خلال تغيير العمر الانتاجي للأصل او قيمة الخردة).					
4	التأثير على قيم بعض المصاريف من خلال تغيير طريقة الاعتراف مثل (مصاريف البحث والتطوير او مصاريف الصيانة).					
5	التأثير على طريقة تصنيف بعض القروض سواء أكانت قصيرة الاجل او طويلة الاجل.					
6	التأثير على قيمة الايرادات التشغيلية للشركة من خلال الاعتراف المبكر لبعض العمليات التشغيلية او العكس.					
7	التأثير على قيمة المبيعات من خلال تغيير سياسة الخصم المتاح للمبيعات.					
8	التأثير على قيمة التدفقات النقدية من خلال اعادة تصنيف بعض المصاريف الاستثمارية او التمويلية على انها تدفقات تشغيلية.					
9	التأثير على تصنيف بعض المصاريف من خلال رسملتها عوضا عن الاعتراف بها كمصاريف تشغيليه.					
10	الاعتراف ببعض عمليات بيع الاصول على انها ايرادات تشغيليه.					
11	اطفاء بعض المصاريف للتأثير على اداء الشركة.					
12	التأثير على مخصصات الديون المشكوك في تحصيلها					
13	التأثير على قيمة بيع الاصول الثابتة.					

أي أساليب أخرى ....

الجزء الثالث: دور آليات حوكمة الشركات الداخلية في الحد من ممارسات إدارة الارباح.

خلال السنوات الماضية قامت الحكومة الاردنية بتشريع مجموعة من القوانين والأنظمة (مثل حوكمة الشركات) لحماية حقوق المساهمين في الشركات المساهمة العامة. لذلك وبناءا على خبرتك العلمية\ العملية يرجى ابداء رأيكم الكريم في مدى تأثير اليات الحوكمة التالية في الحد من ممارسات إدارة الأرباح وتقليل تأثير المدراء على قيم الارباح.

	آليات حوكمة الشركات	غير موافق بشدة	غير موافق	لا أعلم	موافق	موافق بشدة
1	عقد اجتماعات دورية من قبل مجلس الإدارة بحد أدني أربعة اجتماعات.					
2	وجود نسبة ملكية عالية للمستثمرين الافراد.					
3	تحديد السقف الاعلى لعدد العضويات الخارجية لأعضاء مجلس الادارة في مجالس الشركات الاخرى (بحدها الاعلى خمس عضويات).					
4	وجود لجنة التدقيق.					
5	الفصل ما بين منصب رئيس مجلس الادارة ومنصب المدير التنفيذي.					
6	وجود نسبة ملكية عالية لأعضاء مجلس الادارة.					
7	وجود نسبة ملكية عائلية عالية في الشركة.					
8	وجود عدد معقول من الاعضاء المستقلين في لجنة التدقيق					
9	وجود عدد معقول من الاعضاء المستقلين في مجلس الادارة (على الاقل ثلث مجلس الادارة).					
10	وجود نسبة ملكية عالية للمستثمرين كالشركات والبنوك.					
11	كبر حجم مجلس الإدارة (على الأقل ستة أعضاء).					
12	عقد اجتماعات دورية من قبل لجنة التدقيق بحد أدنى أربعة اجتماعات.					

أي آليات أخرى ....

شكرا لتعاونكم

Appendix 3

University of Southampton
Business School Accounting Department
Southampton, U.K

Questionnaire
On
The Roles of Internal Corporate Governance mechanisms in constraining earnings management Techniques in Emerging Market: the Jordanian Case

Dear Participant

You are invited to participate in a research study that aims to investigate the role of monitoring mechanisms in constraining earnings management practices within the Jordanian context. Specifically, it aims to investigate the effects of the corporate governance code and ownership structure in mitigating this phenomenon. I am currently a full time PhD student in the Accounting Department of the Southampton Business School / University of Southampton, United Kingdom. I am in the process of collecting the required data to achieve my research objectives. Therefore, the following questionnaire considered a significant part of my empirical study in order to achieve the intended outcomes

Your participation in this research project is voluntary. Your responses will remain confidential and anonymous. The collected data will be encrypted and password protected, and stored in a secured place, thus, no one other than the researcher will have the ability to access these data. Your participations will contribute to our results positively. Consequently, this will help Jordanian regulators to assess the needs for Jordanian market to minimize this phenomenon.

It is my pleasure to carry out this questionnaire with you due to your financial / accounting experience and your field experience concerning earnings management and corporate governance issues.

Thank you for your participation.

Alaa M.M Al-Qudah

Tel: 0777420026

Mail: Amma1g14@soton.ac.uk

Part 1: General Information

The questionnaire consists of four main parts. Please answer all section. It should not take more than 15 minutes to be completed.

1) What is your work position? Select one please.

Board of Directors	Audit Committee Member	External Auditor	Government Employee

2) What is your qualification?

Diploma	Bachelor	Master	PhD	Other
	`			

3) What is the total length for your work experience in your current position is…………

Less than One Year	1-5 Years	6-10 Years	11-15 Years	More than 15 years
	`			

4) What is your professional certification?

CMA	CPA	JCPA	NONE	Other
	`			

Please identify…………………………………………..

Part 2: Based on pervious literature, there is a general coincidence on different practices for board of directors to use their personal judgments to alter accruals numbers to reach a specific target of earnings. Therefore, and based on your work and professional experiences, to what extent the following manipulation techniques do exist in the Jordanian market?

#	Accounting Treatments	Strongly Disagree	Disagree	Neutral	Agree	Strongly disagree
1	Altering inventory amounts by changing valuation methods (FIFO and AVCO).					
2	Altering account receivable estimation basis for doubtful accounts.					
3	Altering depreciation policy such as (altering useful life or salvage value					
4	Altering the amount of some expenses such as (research & development and maintenance allowances).					
5	Altering loan interest classifications.					
6	Altering revenue amounts by premature recognition of sales transactions.					
7	Inflating sales amount by altering credit notes.					
8	Reclassifying some cash flows to affect the operational cash flow amount.					
9	Capitalizing some expenses rather than recognising it as expenses.					
10	Recognizing assets sales (one off sales) amounts as operating revenue to improve operating income.					
11	Writing off firms costs to alter firm performance.					
12	Altering bad and doubtful debts provisions.					
13	Altering fixed assets sales amounts.					

<u>Part 3:</u> during the last years, Jordanian Governments legislated different laws and regulations such as (Corporate Governance) to protect shareholders rights. Hence, and based on your experience, to what extent do you think the following corporate governance mechanisms constrain earnings management issue?

#	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Board of directors regular meetings (four meetings at least).					
2	The existence of block-holders'					
3	Restricting the upper limit of memberships for each board					
4	The existence of an audit					
5	Separation between CEO and any executive position within firms.					
6	High proportion of shares owned by members of board of directors.					
7	The existence of family firms' ownerships					
8	The existence of independent members in the audit committee					
9	High proportion of independent members in firm’s board.					
10	The existence of institutional					
11	Large size of board of directors (six directors at least).					
12.	Audit Committee regular meetings four meetings at least (more than four).					

Thank you very much for your cooperation

Appendix 4

Name	Position	Place of Work	Email
Oliver Marnet	Academic Staff	University of Southampton	O.Marnet@soton.ac.uk
Mohammad. H Al Kaddour	Academic Staff	University of Southampton	M.H.Al-Kaddour@soton.ac.uk
Mahmoud Al-Sayed	Academic Staff	University of Southampton	M.Al-Sayed@soton.ac.uk
Malik Al-Shrairi	Academic Staff	German-Jordanian University	malek.alsharairi@gju.edu.jo
Hafez Abdo	Academic Staff	Nottingham Trent University	hafez.abdo@ntu.ac.uk
Ahmad Al-Qawasmi	External Auditor	KPMG auditing office	aalqawasmi@kpmg.com
Ayman Ahmad	External Auditor	Asia Auditing Office	ayman@asia-cpa.com
Mustafa Alqudah	Internal Auditor	Electricity Distribution company	M.alqudah@edco.jo
Ahmad Al-Omari	Academic Staff	Yarmouk University	aalomari@yu.edu.jo
Sara Tarawneh	Governmental employee	Securities Depositary Centre	starawneh@sdc.com.jo
Moayyad tahtamouni	Governmental employee	Amman Stock Exchange	mtahtamouni@ase.com.jo
Tariq Abu Al-Hyja	Governmental employee	Amman Stock Exchange	Talhja@ase.com.jo
Mohammad Khataybeh	Academic Staff	The Hashemite University	khataybeh@hu.edu.jo
Tony Abdoush	PhD student	University of Southampton	T.Abdoush@soton.ac.uk
Ahmad Abdallah Khataybeh	PhD student	Birmingham University	Aaa095@bham.ac.uk
Basiem Shattarat	PhD student	Plymouth University	Basiem.al-shattarat@plymouth.ac.uk

Appendix 5

University of Southampton
Business School Accounting Department
Southampton, U.K

<u>Semi Structured Interview Questions</u>

1. Based on your work experience, what are the most important obstacles that weaken corporate governance monitoring role in Jordan?

2. In order to restrict EM phenomenon, how do you evaluate board of director's role in this regard, specifically in terms of the following characteristics (Independent Members, CEO duality, Board size, Board meetings and the number of external directorships)?

4- In order to restrict EM phenomenon, how you do evaluate AC role in this regard, specifically in terms of the following characteristics (the existence of AC, Independent members, and AC meetings)?

5- Do you think ownership structure represented by (institutional, managerial, block-holders and family ownerships) constrains EM issues?

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