

# **UNIVERSITY OF SOUTHAMPTON**

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**Corporate governance and Risk disclosures practices in the annual reports of Jordanian  
banks**

By

Safaa Adnan Al Smadi

Thesis for the degree of Doctor of Philosophy

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# UNIVERSITY OF SOUTHAMPTON

## ABSTRACT

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### **Corporate governance and Risk disclosures practices in the annual reports of Jordanian banks**

**By Safaa Adnan Al Smadi**

Recent decades have witnessed an increasing demand for risk disclosures, a demand that has augmented since the 2007/2008 financial crisis (ICAEW 2011). According to Dobler et al. (2011), the lack of clarity in risk disclosures, coupled with a complex business environment, are factors, which have increased the need for research into firms' disclosures about risk and risk management. Furthermore, business scandals and fraudulent cases (e.g. Enron and Worldcom), and the 2007/2008 credit crisis have shaken investor confidence in the information provided by firms (Rajab and Handley-Schachler 2009), and have called into question firms' risk exposure and the reliability of financial reports (Oorschot 2009). It has been suggested that an increase in more relevant risk information would reduce investors' uncertainty (Elshandidy and Neri 2015) and enhance the image and reputation of firms (Louhichi and Zreik 2015).

This study intends to examine risk disclosure in annual reports of 15 listed Jordanian banks. Further, this research empirically examines the influence of corporate governance factors on the level of risk disclosure in the annual reports. This study will use mixed method research entailing quantitative and qualitative data analysis. Qualitative methods will employ semi-structured interviews, whilst the quantitative approach is based on content analysis and regression analysis over the period (2007-2016). Content analysis investigates risk disclosure volume, categories, nature, timeframe and news-type.

Results showed that there is an increase in the number of total risk disclosures in the annual reports of the Jordanian banks for the period examined, banks in Jordan provided similar levels of risk disclosures in terms of total risk disclosure, risk categories, timeframe, news-type and nature (quantitative vs. qualitative). However, Banks did disclose low level of voluntary risk disclosures, most of the risk information was based on mandatory requirements, such as Basel and IFRS.



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## Declaration of Authorship

I, ..... [please print name]

declare 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.

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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;
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Date: .....

## Dedication

To my great parents, whose support has made a great difference to my life.

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## Definitions and abbreviations

ACCA	Association of Chartered Certified Accountants
AFM	Amman Financial Market
AICPA	American Institute of Certified Public Accountants
AMIR	Association for Investment Management and Research
ASE	Amman Stock Exchange
BCBS	Basel Committee on Banking Supervision
CBJ	Central Bank of Jordan
CEO	Chief Executive Officer
CICA	Canadian Institute of Chartered Accountants
COSO	The Committee of Sponsoring Organizations of the Treadway Commission
EAS	Egyptian Accounting Standards
ERM	Enterprise Risk Management
ERM	Enterprise Risk Management
ESRC	Economic and Social Research Council
FASB	Financial Accounting Standards Board
FRC	Financial Reporting Council
FRR	Financial Reporting Release
FTSE	Financial Times Stock Exchange
GAS	German Accounting Standard
GAS	German Accounting Standards
GCC	Gulf Cooperation Council

GDP	Gross domestic product
GNI	Gross National Income
IAS	International Accounting Standards
IAS	International Accounting Standards
ICAEW	Institute of Chartered Accountants in England & Wales.
IFRS	International Financial Reporting Standard
IMF	International Monetary Fund
IRGC	International Risk Governance Council
JACPA	Jordanian Association of Certified Public Accountants
JSC	Jordan Securities Commission
OECD	Organisation for Economic Co-operation and Development
ROSC	Report on the Observance of Standards and Codes
SDC	Securities Depository Centre
SEC	Securities Exchange Commission
SSC	State Security Court
UN	United Nations
WB	World Bank
WTO	World Trade Organization

## Chapter 1 : Introduction

### 1.1 Research Background

According to Eccles et al. (2000), firms need to include associated risks and risk management plans when reporting activities to shareholders and stakeholders; as it is believed that risk disclosures increase investors' confidence and enhance transparency (Linsley and Shrives 2006; Linsley and Lawrence 2007; Hassan 2014). Financial scandals in recent decades have exposed the inadequacies and limitations of reporting systems and risk disclosures (ICAEW, 2011), and have led to greater interest in risk reporting (Oliveira et al., 2013). Furthermore, global business operations, expansion of new financial instruments, rapid technological changes and the issuance of new regulations and standards are making business environments more volatile and unstable, leading to more risk exposures. This increases investors' demands for more disclosures, which will enable them to assess firms' risks (Abdallah et al., 2015). 70% of respondents to an ACCA (the Association of Chartered Certified Accountants) survey conducted in the UK, US and Canada, stated that there should be more disclosures about the risks that a firm is exposed to, and that risk and risk management disclosures were top concerns after the global financial crisis (ACCA, 2012).

To begin with banks are seen as risk taking and risk management entities, add to this the new regulations and the new innovative, yet sophisticated, financial instruments. This contributes to increasing the complexity of the banking industry, hence increasing the level of risks faced by banks. Disclosures about such risks is important to evaluate these risk effects on the firm's financial position in the future (Dobler, 2008). However, according to Linsley et al. (2006, p.279), " banks wish to keep discussions concerning their risk levels and their risk management capabilities out of the public domain". The determinants of the quality of risk reporting in financial institutions are under-researched (Barakat and Hussainey, 2013).

Disclosures about risk and risk management of many failed banks were deemed to be lacking before the credit crisis in 2007 and 2008 (Singh, 2013). It is worthwhile to mention that laxity in risk management is the underlying cause of major financial crises (Ellul and Yerramilli, 2010). President's Working Group on Financial Regulation (2008, p.2) considered risk management weaknesses at some large U.S. and European financial institutions as one of "the principal underlying causes of the turmoil in financial markets". Ineffective risk management systems can affect risk disclosures; since, one of the risk management functions is to enhance the firm's financial reporting (Subramaniam et al., 2009). Moreover, such problems and weaknesses in risk management systems were not included in the annual reports in a clear manner during and prior to crisis (Kravet and Muslu 2013).

Land and Jagtiani (2010 p.21) argued that before the credit crisis "Financial firms lacked effective internal controls, accurate and timely financial and risk reporting to the right management level, and

a corporate-wide view of risk or an enterprise-wide risk management program". Furthermore, after the Credit Crisis 2007-2008, banks' risk disclosures have been suggested as an effective tool to avoiding banking crises (Financial Stability Board, 2012), for example, existing literature on risk disclosures shows that banks with better quality risk disclosures have higher capital reserves and lower default risk (Nier & Baumann, 2006).

Many frameworks have been introduced all over the world to describe efficient methods in identifying and managing risks; the (OECD) analytical model of risk, the (COSO) framework of enterprise risk management and the International Risk Governance Council (IRGC) risk governance framework. Nevertheless, effective risk management policy does not necessarily mean that a firm is communicating adequate risk information to stakeholders, and this is demonstrated by the greater demand from investors to increase risk disclosures (The Association of Chartered Certified Accountants 2014).

Armstrong & Sweeney (2002) identify that risk reporting is a mechanism used to provide information on the risks, dynamics and uncertainties that an organization is exposed to. According to Steve (2012), the question of risk reporting stems down to corporate governance practices in an organization. He argues that with good practices in place, the management should be able to put in place appropriate measures to enhance required risk reporting standards. Coupled with poor corporate governance, risk reporting is a critical concern in the determination of a firm's performance.

Disclosures in the non-financial sections of the annual reports are of great importance to stakeholders, and to the quality of financial reporting (Beattie et al., 2004). Risk disclosure is critical in enhancing a sustainable firm in light of the increasing incidences of financial loss in the contemporary environment (Steve, 2012). Coupled with good corporate governance, risk reporting is also crucial in upholding the reputation of firms, increasing investor confidence and stakeholders' motivation.

In spite of the increased interest in risk disclosure and the surge of regulations and reforms (i.e., IFRS 7 Financial instruments, IAS 32, IAS 39 and the BASEL II) that began after key scandals such as the Global Financial Crisis, studies suggest that risk disclosures are still not adequate (Abraham and Shrives, 2014; Bao and Datta, 2014; Davies et al., 2010; Dobler et al., 2011). A large portion of research in this area reports an increase in the amount of risk disclosures, but with lesser focus on the quality and usefulness of risk disclosures (Oliveira et al., 2013; Anagnostopoulos and Skordoulis, 2011), which raises questions about the quality of present regulations and how future regulations should be formed.

The effects of these regulations on the quality of firms' disclosures have not been fully examined by researchers (Leuz and Wysocki, 2008), but it is observed that countries with highly governed disclosures have well developed capital markets and stronger economies. An example of this is demonstrated by La Porta et al. (2006), who found that better enforced security regulations are associated with higher financial market developments. Another study from Glaeser et al. (2001), on the regulation of financial markets and the associated stock market development in Poland and the Czech Republic, reported that higher enforcement of securities law is associated with a rapidly developing stock market in Poland.

Current disclosures of risk and risk management are unhelpful (Davies et al., 2010; Campbell and Slack, 2008), lack transparency (Dobler et al., 2011) and lack informativeness (Bao and Datta, 2014). In recent years, firms have failed to perform, and have collapsed, liquidated and merged due to scanty supervision of financial systems (Mokhtar and Mellet, 2013; Benediktsdottir et al., 2011; Levine, 2012), high leverage and dependence on external financing (Mokhtar and Mellet, 2013; Claessens and Kose, 2013), and the massive use of new risky financial instruments (Levine, 2012). Such risks and others were not included in the shareholders' reports in a timely, clear and complete manner during and prior to crisis (Kravet and Muslu, 2013; Magnan and Markarian, 2011; McFall, 2008 as cited in Huian, 2010). This weakness is widely known as the risk information gap, and denotes the difference between the risk disclosure reported by a company, and the shareholder's needs for information to assess the company's risk profile (Linsley and Shrives, 2006).

Mohkatar and Mellet (2013) noted that most prior literature focused on the nature and determinants of risk reporting in developed countries. The studies in this category included the works of Elshandidy et al. (2015), Abraham and Cox (2007), Konishi, and Ali (2007) and Kravet and Muslu (2013). Mohkatar and Mellet (2013) also tried to further the study of developing economies such as Egypt. Current studies note that middle-income economies are not adequately examined in the literature which discusses risk and risk management reporting. It is essential that different nationalities evaluate their risk reporting practices following the suggestion of Aerts (2005), that firms' disclosures are influenced by cultural differences among countries.

## 1.2 Problem statement

It is believed that better risk reporting is in the best interest of firms, Solomon et al. (2000) argues that corporate risk disclosures will enhance market confidence and reduce the cost of the capital. Moreover, risk disclosure enhances risk management and corporate governance, increases the usefulness of financial reporting and reduces cost of capital for companies (ICAEW, 2002). Elshandidy and Neri (2015) add that risk information is useful for users since it reduces information

uncertainty and information asymmetry. Hence, improving risk disclosures should be like pushing on an open door, making the current status of risk disclosures (i.e. inadequate) a puzzle that needs to be explained (ICAEW, 2011 P.16).

The concept of risk reporting has been in existence for some time, especially in the US and the EU (Steve 2012), but In spite of its existence, organizations and financial institutions have collapsed and failed (e.g., Worldcom). According to ICAEW (2011), risk reporting before the financial crisis was inadequate, especially in financial institutions where it failed to warn that there were imminent and conceivable problems. Judging from the study by Mead & Bampton (2006), there are certain practices that benchmark appropriate risk reporting, including; informing users about information they need to know, focusing on quantitative information, integrating information on risk with other disclosures, and providing analysis beyond the usual annual reporting. However, today's risk disclosures are generic and hold information of limited use (The Association of Chartered Certified Accountants, 2014). According to Miihkinen (2012, p.5) risk disclosure is still an "unexplored area of research'. Hence, it is important to understand why there is a note of disappointment in risk disclosures and whether risk disclosures have improved in response to recent reforms and regulations.

'A clear description of the most important resources, risks and relationships that management believes can affect the entity's value and how those resources, risks and relationships are managed' among other elements should be included in management commentary (IASB 2010, p.13). However, studies on current risk disclosures describe them as being generic, brief, and lacking forward-looking information (Abraham and Shrives, 2014), which can affect the relevance of financial reporting (Cabedo and Tirado, 2004). This noted lack of risk disclosures in the annual reports necessitates research on the reasons behind the lack of disclosures and on the determinants of risk disclosures practices. Furthermore, Dobler et al. (2011) called for more research on risk disclosures and the effect of corporate governance on the level of disclosures in countries where risk disclosure regulation is weak.

On the other hand, the failures of many large companies internationally, rapid changes in technology, the introduction of new products and services, globalization of capital and product markets have made the business environment complex and created the need for new regulations and laws. Hence, many countries and standards setting bodies have been establishing new regulations and codes of corporate governance. Developed countries' experiences in risk management and financial reporting are far more successful than those of developing countries and research on such issues have been focusing greatly on developed countries. Hence countries like

Jordan still lag behind developed countries in terms of the understanding of the status quo of risk management and disclosure practices, and in terms of the implementation of the adopted financial reporting and corporate governance rules and regulations.

It is widely accepted that corporate governance affects firms' disclosure practices (Patelli and Prencipe, 2007; Lim et al. 2007; Karamanou and Vafeas, 2005; Core 2001), but there is little research on the effect of corporate governance on risk disclosures (Elshandidy and Neri, 2015).

Structures of corporate governance vary from one state to another based on the economy, social and political standings. The neo-institutional theory predicts that firms tend to respond differently to regulations, because companies usually face different sets of institutional and market pressures (Aguilera and Jackson 2003). So far, there are minimal studies that indicate any relationships between corporate governance determinates, risk, and risk management reporting in Jordan. Different corporate governance styles have an impact on risk and risk management reporting practices.

It will be of great interest to study whether risk disclosures in Jordan have improved as a response to various pressures

### **1.3 Research objectives**

The research objectives drawn from the problem statement are as follows;

1. To determine the extent of risk disclosures in the annual reports of Jordanian banks.
2. To determine the relationship between the mechanisms of corporate governance and risk reporting.

### **1.4 Research questions**

The research questions of the study are as follows:

1. What is the level of risk disclosures (quantity and quality) in the annual reports of the Jordanian banks?
2. Do corporate governance mechanisms, including Institutional ownership, audit committee composition and board of directors' composition, affect the quality and quantity of risk disclosures?
3. Has the issuance of corporate governance codes affected the quantity/quality of risk disclosures?

## 1.5 Motivation and rationale behind the study

Fuller and Jensen (2002) argue that trying to hide risks associated with any business is like pushing a balloon that will explode sometime in the future. Risk assessment and management is a key feature that all firms must observe and report accordingly to the shareholders, since risk is an inevitable element in each business, let alone banks.

It is inevitable that shareholders have drawn their attention to risk reporting practices after the recurrent news and reports on failures of firms. Such failures have shaken investors' confidence in the information provided by firms. Furthermore, globalization, introduction of new complex financial instruments, rapid technological changes and new regulations have contributed to a volatile business environment, thus more risk exposures. Which necessities the need for more risk disclosures to assess firms' risks (Abdallah et al., 2015).

The importance of risk disclosures comes from the belief that better risk disclosures enhance investors' assessment of the future performance of the firm (Moumen et al., 2015), and ensure dissemination of relevant information to stakeholders Alawattage & Wickramasinghe (2004), therefore, increasing investors' prudence when they make their investments decisions. However, current risk disclosures are insufficient (Domínguez and Gámez 2014), lacks transparency (Dobler et al., 2011), and lacks informativeness (Bao and Datta, 2014). In addition, research on risk disclosure is still in its "infancy" (Abraham and Shrvies, 2014 p. 3) and some topics are less examined such as, the association between corporate governance and risk disclosures (Elshandidy and Neri, 2015). Although quality of risk disclosures is more important than quantity (Beretta & Bozzolan, 2004; Campbell, & Shrvies, 2010), the most part of risk disclosure literature has examined the quantity of risk disclosures by counting the number of sentences or words of risk information in the firms' annual reports (Abraham and Shrvies, 2014).

Most of the research on risk disclosures is conducted in developed countries (e.g Linsley and Shrvies, 2006; Abraham and Cox, 2007; Elzahar and Hussainey 2012; Lajili, 2009) research is still limited in developing countries. Finally, research on risk disclosures that focuses on financial firms is limited and the lack of this research is greater in developing countries (Al-Maghzom et al., 2016).

Linsley and Shrvies (2006) argued that risk disclosures of banks should be addressed independently since banks are more confronted with risks compared to non-financial firms. Risk disclosures are very important to the banking industry since it enhances transparency and reduces uncertainty thus, enhances investors' confidence and trust, confidence in the banking industry is vital to the stability of the financial system (FSB, 2012). Moreover, risk disclosures can help evading banking crisis (ibid).

Studies that examined corporate governance influence on risk disclosures in developing countries, is limited (Al-Maghzom et al., 2016). Furthermore, to the best of my knowledge not a single study has studied the influence of corporate governance on risk reporting practices in the Jordanian context. Therefore, this is the first study that examines this subject in Jordan. Examining risk disclosures in developing countries is hence important, given that different cultures, literacy, economic and political systems can influence the nature and extent of financial reporting (Wallace, 1993).

In addition, few studies have explored risk disclosure over more than a single year in developed countries (e.g., Cabedo and Tirado, 2004; Deumes, 2008; Rajab and Schachler, 2009; Elshandidy et al., 2015), this shortage is rather greater in developing countries (Al-Maghzom et al., 2016).

Based on the World Bank classification, a developing economy is low- or middle-income economy, and a Gross National Income (GNI) of \$12,746 or less (in 2016). Problems developing countries are facing include unstable economies, weak legal frameworks, and weak protection of investors (Tsamenyi et al., 2007). Moreover, accounting systems and financial reporting in developing countries are usually inadequate (Thompson, 2016).

Previously mentioned problems might affect the way corporate governance structures are implemented, especially that some developing countries (e.g. Jordan) have adopted governance codes of western countries without considering differences in economy and culture, which in some cases did not provide desired results (Iuhasz and Dorin, 2015). Uddin and Choudhury, (2008) attributed the undesired results to corruption and government interference.

Moreover, motivations behind adoption of international codes and standards in developing countries, who according to United Nations, (2011) are more willing to comply with international standards, might be an attempt to appear as a well-organized and regulated place for investment (Irvine, 2008) or as a result of pressures of World Bank's or the Organisation for Economic Co-operation and Development (OECD) economic reforms (Gugler et al., 2003) and not for the sake of real change and development.

In the area of disclosures, disclosures in middle income countries tend to be different from those in the high income countries, for example United Nations Conference on Trade and Development (2007) found that firms in middle income countries provide less corporate governance disclosures than firms in high income countries. The UN (2011) Found that disclosure requirements in developing countries and compliance levels are less than those in developed countries.

It is therefore important to determine the extent of risk and risk management reporting in Jordan. Understanding how corporate governance influences risk reporting practices will be of prime

significance. This will provide a platform to direct the next level of risk and risk management reporting in Jordan.

### **1.6 Contribution to the existing literature**

The research will study risk disclosure trends over eight years and examine how disclosure practices have changed due to the new regulations and codes of corporate governance in Jordan. One important contribution of this study is the period of time covered, because it follows the imposition of corporate governance in 2008 in Jordan. Recent research reports an improvement in the level of disclosures after a specific regulation, for instance ( Woods and Reber 2003) after risk reporting GAS 5 in Germany, (Dunne et al. 2007) after FRS 13 in UK, (Miihkinen 2010) after the introduction of the National Disclosure Standard in Finland, and (Roulstone 1999) study of the effect of FRR No. 48 in the US.

This study will contribute to existing literature on risk disclosures through addressing the differences in risk disclosures among different firms, and explore the reasons and determinants of these differences. It will focus on the association between corporate governance factors on risk reporting in Jordan. Moreover, this study supports the limited literature which is available regarding the middle-income nations in reference to accounting and risk reporting practices.

Contributions of the study are: First, the majority of risk disclosures studies in the Middle East has been focusing on the effects of firm characteristics on risk disclosures. For example, Hassan (2009) in UAE, Mousa and ElAmir (2013) in Bahrain, Marsouk (2016) in Egypt, Ramezani (2013) in Iran. Hence, more research is needed on the effect of governance characteristics on risk disclosures. Second, most of the research has been examining risk disclosures over a year or a short period of time. For example, Mokhtar and Mellet (2013) in Egypt for the year 2007, Abdallaha et al. (2015) in Gulf Cooperation Council (GCC) for the year 2009, Almania (2017) in Saudi from 2012 to 2015 and Mousa and ElAmir (2013) in Bahrain for the years 2010 and 2011. The current study covers a period of ten years from 2007 to 2016.

Third, previous research has examined risk disclosures based on quantitative methods such as content analysis and disclosures indices (e.g., Mousa and ElAmir, 2013; Marsouk, 2016; Abdallaha et al., 2015). However, using mixed methods to examine risk disclosures provides an opportunity to obtain deeper understanding of the issue and reveal complex relations that cannot be examined by quantitative methods (Anderson, 2009). This study will be based on content analysis as a method of measuring the level of risk disclosures in the annual reports of the Jordanian banks and interviews

with board members, regulators, auditors and risk managers in the Jordanian banks to explore attitudes toward risk disclosures.

Fourth, few studies address the levels of risk disclosures after the introduction of new codes and regulations. Mokhtar (2010) investigated the effect of Egyptian Accounting standard (EAS 25, EAS 33) on the level of risk disclosures in the Egyptian listed firms. However, limited studies addressed the effects of governance codes on the level of risk disclosures.

Fifth, although some research has been done in developing countries, Jordan has some particularities. For example, culture in Jordan is characterised by tribalism and Wasta (nepotism). Which can affect compliance with laws (Subramaniam and Sonntag 2015), and culture is found to affect accounting and disclosure practices of a country (Gray 1988). Moreover Jordan is a fertile area for research because of the consequent changes on these country's economies and stock exchanges (new corporate governance codes) and the continuous pressure from institutions like the World Bank (WB) and the International Monetary Fund (IMF) on the country to adopt the international best practices.

Sixth, there is a scanty of research that focused on the effect of the characteristics risk committee on the level of risk disclosures (e.g. Alhadi et al., 2016). Research that focused on risk committee examines the mere existence of risk committee without examining the characteristics of the committee. Seventh, majority of research, especially in developed countries, address risk disclosures in non-financial firms (e.g., Marzouk, 2016; Hassan, 2009; Mokhtar and Mellet, 2013). Finally, most of risk disclosure research measure risk disclosures by counting risk occurrences (e.g., words and sentences) in the annual reports; this study comes to address this gap by measuring quantity and quality of risk disclosures.

### **1.7 Conclusion**

The purpose of this first chapter is to provide an overview of the corporate governance and risk disclosure in general, and the financial reporting situation in Jordan. The chapter also provides the research questions and objectives, rationale and contributions of this study.

## Chapter 2 : Financial reporting in Jordan

## 2.1 Introduction

Jordan is an Islamic, Arab Kingdom located in the Middle East. Jordan is a constitutional monarchy; the country gained its independence from the British Mandate in 1946. The Jordanian economy is open, small and can be described as service oriented; but it has relatively well-educated human resources (Alhomsi, 2002).

The country has very limited natural resources; the economy depends heavily on aid from the Gulf countries, remittances of expatriates and tourism (Beblawi and Luciani, 2015). This is indicative of how dependent the Jordanian economy is on the external economic and political situation, any external crisis or prosperity is likely to have a big effect on Jordan's economy. The vulnerability of the Jordanian economy and its dependence on external funds have led the government to cooperate with institutions, like the World Bank and the IMF, to ensure economic and financial stability.

According to the OECD (2013), the investment environment in Jordan is complex and is regulated by laws and acts, some of which are temporary and overlapping. Problems of 'legal coherence, transparency and predictability for investors', deform the environment and hinder governmental efforts to enhance investors' confidence (ibid, p.19). Clear evidence of this began with the initiation of several reforms in 2002. Jordan First was the first initiative; it was initiated by the Palace under King Abdullah and aimed to reform the economic and political environment.

However, as one of the interviewees indicated, the slogan 'Jordan First' was the most obvious result of this reform, since it lacked support of many parties of the government. Only 16% of Jordanians knew that 'Jordan First' was aimed at strategic reform (Muasher, 2011). According to Muasher (2011), the initiative failed because it never acquired society's attention, and the objectives of the initiative were never adequately explained.

In 2005, the king offered a more holistic initiative; The National Agenda. This initiative was more holistic in terms of representatives who helped to form the agenda. Parties involved included parliament, the Government, female activists, the media, and the private sector. The National Agenda aimed to reform various areas of society, including; politics and the economy, as well as social and environmental reforms. Enhancing democracy, public freedom, accountability, transparency, and equal rights were among the objectives of the initiative.

Again, the agenda faced opposition from elitist groups surrounding the king, who feared that the reform would result in a loss of power. They argued that such reforms might weaken the politics and the economy (Interviewee 1). The Agenda was then side-lined, as many parties of the political

elite perceived the agenda as a threat to many of their privileges, for example, goals to change the electrical system were perceived to be a threat to the parliament (Lynch, 2008).

We Are All Jordan in 2006 was an attempt by the king to achieve the objectives of the previous tax reforms; the new initiative aimed at addressing the most urgent issues and challenges faced by the country. However, the public's lack of trust and the lack of commitment from prime ministers toward the reform left the agenda dead (Muasher, 2011).

The hindering of the reforms is only a symptom of the real problems that face the kingdom. Most notably; corruption, nepotism, unemployment and poverty, which became a real concern in Jordan (Al Adwaan, 2014). Jordan faces great deal of corruption challenges (Johnson and Martini, 2012), and many corruption cases have been filed to the State Security Court (SSC) such as the National Resources Investment and Development Corporation (Shanikat and Khan, 2013).

One form of corruption that is common in Jordan is Nepotism (Wasta), the anti-corruption department in Jordan has stated that nepotism is one of the top corruption factors in Jordan (ASE, 2015). Examples of Wasta are promotions that are not based on personal qualifications rather based on kinship and personal connections (Bertelsmann Foundation, 2010) and firms that use their strong relations with the government to gain special treatment to serve their own business.

Add to that, Jordan is a country with limited natural resources that mainly depends on aid from Arab and western countries, tourism and expatriate remittances. Which makes the Jordanian economy vulnerable to circumstances in other countries, particularly to the political stability in the region. The increase in imports of food and energy by at least 50% (Oxford Business Group, 2013) after the Syrian crisis is just one example. Moreover, this difficult position of Jordan will put it under the pressure to adopt development programs that, according to Kamla (2004, p.12) are 'prescribed to them by western experts working in international organizations such as the World Bank'. Which might not be applicable in the Jordanian context.

## **2.2 Financial reporting in Jordan**

Prior to 1997, disclosures in Jordan were voluntarily prepared and disseminated, as Amman Financial Market (AFM) had no disclosure requirements at that time (Solas, 1994). Since the establishment of the Jordanian Board of Accountancy in 1961, several laws and amendments were introduced in Jordan in order to regulate the accounting and auditing profession. But 'prior to 1997, there was no legally established accounting and auditing standard-setting body in Jordan, and the process of regulating accounting practice in Jordan was purely promulgated by the government' (Al-Akra et al.,

2009 p.169). In 1997, the Jordanian companies listed at the Amman Stock Exchange (ASE) were required for the first time, to adhere to specific disclosure requirements according to a new disclosure regulation, known as Directives of Disclosure and Accounting and Auditing Standards No. 1(Haddad et al., 2009).

Difficult economic conditions, the loss of Arab and US aid in the nineties, open trade agreements with the states and the European Union, and the conditions imposed on Jordan by the World Bank, have sparked the need for new regulations and reforms in order to strengthen the national economy. Reforms and regulations included the privatisation process in 1997, adaptation of International Accounting and Auditing Standards (1997), the enactment of The Company Law (1997) and The Temporary Securities Law (1997). The major purpose of the Temporary Securities Law (1997) enactment is to regulate and restructure the Jordanian Capital Market and to enhance transparency in the market. The Law was the first to require Listed Jordanian firms to comply with specific accounting requirements. Moreover, it paved the way for the establishment of the three institutions; The Jordan Securities Commission (JSC), the Securities Depository Centre (SDC) and the Amman Stock Exchange (ASE), which were previously represented by the Amman Financial Market. The restructuring separated the monitoring role from the executive role, where AME and SDC held the executive functions and the JSC played the supervision role (Saadi-Sedik and Petri, 2006).

The Company Law (1997) focused on the adoption of International Accounting Standards, and laid down the governance policy framework for Jordanian listed firms. The reform focused on strengthening legal investor protection and emphasised the board of directors' responsibilities in ensuring compliance with mandatory requirements (ASE, 2008). The Act required all public shareholding firms to have an audit committee comprising of three non-executive directors, whereby the committee is responsible for internal control and internal and external audit matters. The committee is required to meet at least four times every year (ROSC, 2004).

The Jordanian Association of Certified Public Accountants (JACPA) recommended that all Jordanian firms voluntarily adopt International Financial Reporting Standards (IFRS) from January 1990. However, the absence of any legal or professional requirement to implement IFRS or any other set of disclosure requirements until 1997 allowed firms to choose the accounting standards that they wanted to adopt, and JACPA were unable to force all listed companies to comply with IFRS. In 1997 The Company Law (1997) was enacted which stated that listed firms are to apply IFRS when preparing their financial statement.

Many studies have explored the level of disclosures in Jordan. Suwaidan (1997) reported that Jordanian firms listed in AMF have low levels of voluntary disclosures, but he conducted the survey before the new regulations and acts were enforced (e.g., The Company Law 1997). He attributed the results to the absence of disclosure requirements, as The Company Law 1989 did not require the contents of financial statements to be disclosed.

Al-Shiab (2003) compared disclosure practises before and after the IAS became mandatory for Jordanian firms. Although the compliance with IAS was higher in the post-mandatory action period, the increase in levels of disclosure were not as high as expected. Al-Shiab (2003) suggests that this was due to an ineffective regulatory system in Jordan.

Shanikat and Abbadi (2011), in their assessment of corporate governance in Jordan, concluded that disclosure and transparency was limited. Naser, et al. (2002) found that good quality reporting in Jordan seemed to be restricted to large companies, and Sartawi et al. (2014) found that the level of voluntary disclosure in the annual reports of Jordanian firms is moderate. Al Akra and Ali (2012) discussed that Jordanian companies need to provide more voluntary information in their annual reports in order to have increased investor confidence, which in turn will add value to the firm.

### **2.3 Empirical evidence of corporate governance in Jordan**

Several studies were dedicated to corporate governance in Jordan, for example, Al-Sa'eed (2013) examined the level of compliance with OECD principles of corporate governance by Jordanian Banks. He distributed surveys to three groups; the audit committee, members of Jordanian Banks, and the Control and Governance Departments in the (CBJ) and in the (JSC). From the perspective of banks, Jordanian banks are complying perfectly with the role of stakeholders in corporate governance, disclosure, and transparency rules. However, from the perspective of CBJ and JSC, banks are only complying moderately with the rights of shareholders and the responsibility of the board. The author explained the differences in the two perspectives, by describing the responses of the CBJ and the JSC as more 'mature' and 'objective' (ibid, p.573).

In his examination of Jordanian banks' compliance with the code of corporate governance in 2012, Al Sawalqa (2014) reported a medium voluntary disclosure level, which is unsatisfactory according to the author. Al Sawalqa (2014) attributes this medium level of compliance to the high level of competition between banks in Jordan, which leads the banks to hide certain information; especially information about their employees for which the level of compliance was lowest according to the study. The highest level of compliance was for background information, which does not represent any risk if known by competitors. One type of information, which is of special interest for this

research, is credit risk exposure information; Al Sawalqa (2014) reported a result of 66.7% of voluntary disclosure for this type of information.

Bawaneh (2011) studied the effects of the implantation of OECD and BCBS (Basel Committee on Banking Supervision) requirements of corporate governance on the banking sector in Jordan. The study reported that each bank in Jordan has established their own code of corporate governance according to the corporate governance code of the CBJ (2007), and that each firm reports annually their level of compliance with the code.

A stream of research focused on the effects of governance mechanisms on the level of disclosures, for example, Al bitar (2015) examined the effects of governance attributes on the level of voluntary disclosures in the annual reports of listed Jordanian firms for the period of (2010-2012). He reported that Board size and audit committee size are positively associated with the voluntary disclosures, whereas board independence and ownership structure are negatively associated.

In a study that examined governance and voluntary disclosures in Jordanian banks over the period of 2009- 2013, Albawwat (2015) found that foreign, block holders ownership and board meeting frequency are not significant to the levels of voluntary disclosures, whereas government ownership is positively associated to the voluntary disclosures. This is consistent with the findings of Al Attar (2016) who found no association between corporate governance and the level of voluntary disclosures in the annual reports of Jordanian banks from 2008 to 2014. Hassan (2013) found that public ownership is negatively associated with total disclosure implying lack of demand by public investors for more disclosures in the Jordan. Hence, according to the author, the majority of individual investors in Jordan are unsophisticated, and they do speculative investment decisions.

## **2.4 Conclusion**

In a country like Jordan that has a bank-based financial system (World Bank 2003), where the banking sector holds up the economy, the government is striving to improve banking regulations to meet the international banking best practices. Banks in Jordan comply with IFRS and Basel requirements, although it is worth mentioning that banks in Jordan do not comply with the Pillar 3 of Basel, considering that IFRS 7 is an adequate alternative. Moreover, banks also comply with rules and regulations of the Central Bank of Jordan and Amman Stock Exchange. It is interesting to study the disclosures of Jordanian banks due to all of the rules and standards that banks have to comply with.

## Chapter 3 : Theoretical framework

### 3.1 Introduction

Disclosure theories assist the study to develop hypotheses and interpret findings. Until now; there is no single theory that explains disclosure practices and motivations (Rajab and Handley-Schachler 2009). Different disclosure theories can be employed to explain disclosure practices, it is recommended to employ more than one theory in the same research. This is because each theory provides partial view of the issue under study (Deegan and Unerman, 2006), therefore different theories can be integrated to obtain different point of views for the same problem being examined. Moreover, there have been calls to use more than one theory in the area of corporate governance due to the inability of one theory to provide adequate explanation.

The chapter begins with defining risk and risk disclosures, and continues to discuss the disclosure theories that explain the relation between corporate governance and risk disclosures.

### 3.2 Definition of risk

Before studying risk disclosure levels and determinants, a clear definition of risk should be provided. There are many definitions of risk in risk literature as well as, risk management and risk disclosure, and some researchers differentiate between risk and uncertainty.

Knight (1921) and Watson and Head (1998) define risk as several expected outcomes with assigned probabilities resulting from a specific decision, whereas uncertainties occur when numerical probabilities cannot be assigned. Ryan (2012, p.296) defines risk as a 'random variation (upside and downside) in firm's future economic performance, given currently available information', and emphasises Knight's (1921) differentiation between risk and uncertainty in his survey of risk disclosure empirical research. Ryan (2012) reports that most of the literature adopts Knightian risk rather than uncertainty, since it is more feasible to measure and quantify risk than measuring uncertainty.

Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines downside risk as events that can 'prevent value creation or erode existing value' and upside risk as events that may offset negative impacts or represent opportunities. (COSO, 2004, p.16).

Researchers meet at the point where risk involves the possibilities of threat, loss, harm and any unfavourable outcome. Many researchers argue that risk could also include upside risk (Shrand & Elliot, 1998), and Ryan (2012, p.296) argues that 'downside risk cannot exist without upside risk unless the benchmark outcome against which risk is assessed is the maximum possible outcome'.

Dobler et al. (2008) provide two perspectives on the definitions of risk; the uncertainty-based view and the target-based view. The uncertainty-based defines perspective risk as uncertainty about possible outcomes associated with probabilities. The target-based view assumes risk as 'the potential deviation from a benchmark or target outcome' (ibid, p.187)

The Institute of Chartered Accountants in England and Wales defines downside risk as 'the risk that something will go wrong', and uses the term volatility to refer to 'the risk associated with uncertainty which gives rise to the opportunity for gain as well as loss' (ICAEW 2002, p.19). Abraham and Cox (2007) classified risk into three groups: variety, uncertainty and opportunity.

The current study will adopt the view that there is downside risk and upside risk, which according to Shrives and Linsley (2003), is called opportunity.

Different definitions of risk have the ability to affect the results of the study; hence it shall be determined what will be considered as risk disclosure. Risk disclosure has been defined by (Schrand and Elliott, 1998) as all types of information communicated in financial statements dealing with business uncertainties.

Risk disclosure is defined by Hassan (2009, P.668) as the 'financial statements' incorporation of general, specific measures as well as potential circumstances that may cause corporations' assets and/or liabilities' value to fluctuate, decrease or otherwise'. Berretta and Bozzolan (2004, p. 269) define risk disclosure as 'the communication of information concerning firms' strategies, characteristics, operations, and other external factors that have the potential to affect expected results'.

Disclosures are judged to be risk disclosures only if 'the reader is informed of any opportunity or prospect, or of any hazard, danger, harm, threat or exposure, that has already impacted upon the company or may impact upon the company in the future or of the management of any such opportunity, prospect, hazard, harm, threat or exposure' (Linsley & Shrives 2006: 389). The current research will adopt this latter definition.

### **3.3 Disclosure theories**

Theories are used to establish the hypothesis of the research and to anticipate the relationships between dependent and independent variables. According to Cooke (1998), there is no correct known form of the theoretical relationship between the variables in accounting. Different theories may provide different expectations and explanations of disclosure practices.

According to Brewer and Hunter (1989), the use of several theories in the same research can help to revive views in the literature that are not well embraced because of using a specific theory. This is

very much the case throughout the disclosure literature. For instance, Cormier et al. (2005, p.8) suggest using 'wider conceptual lenses' and Shrives and Linsley (2003) recommended employing more than one theoretical perspective in the same research in order to take the advantage of theories integration.

In the current research, agency theory, resource dependency theory, legitimacy theory and proprietary cost theory will be employed. Oliveira et al. (2013) and Yi et al. (2011) argued that using an economic theory (resource dependency theory) and a social/ political theory (Agency theory) might be able to explain the motives behind disclosures (Oliveira et al., 2013; Yi et al., 2011), and give a better opportunity to understand disclosure practices (Oliveira et al., 2011). Moreover, studies using single theoretical framework are rare in the literature (Ntim et al., 2013), since, they cannot explain disclosures practices completely (Oliveira et al., 2011).

### **3.3.1 Agency theory**

The most common theory employed to explain risk disclosures practices is the agency theory (Ntim et al., 2013; Mokhtar and Mellet, 2013; Allini et al., 2014; Mousa and Elamir, 2014; Elzahar and Hussainey, 2012; Zadeh and Eskandari, 2012; Oliveira et al., 2011; Htay et al., 2011). Hunziker (2013) suggests that agency theory explains variability in voluntary disclosures, and states that these four variables are management ownership, block-holder ownership, board size, and leverage. All of these variables adequately explained the different levels of internal control disclosures in Swiss companies.

According to this theory, management is an agent who acts on behalf of the owners; it follows that every action taken by the management should be in the best interest of the shareholders. Given the separation between owners and managers there is an inherent risk that shareholders may suffer because of managers' self-interest maximisation at the expense of shareholders (Fama and Jensen, 1985). In such a case, an inherent conflict of interest will arise where managers' interests and shareholders' interests are not aligned (Fama and Jensen, 1983).

Due to the separation between managers and shareholders, it is not possible for shareholders to perfectly observe managers' actions and monitor their performance, creating an information asymmetry, where managers have better information than owners (Jensen & Meckling, 1976). Henceforth, owners employ other monitoring mechanisms and arrangements in order to mitigate information asymmetry and agency problems (Arnold and De Lange, 2004). The relevance of risk disclosures lies in its ability to reduce information asymmetry (Ahmed et al., 2004), hence, helping investors in their decision making regarding investments.

Controlling agency problems entails three types of costs; monitoring costs, bonding costs and residual loss (Jensen and Meckling, 1976).

Monitoring costs include, among others, appointing a board of directors and the cost of audit incurred by owners in order to monitor the opportunistic behaviour of managers. Residual loss refers to managers' actions that do not increase shareholders value despite incurring monitoring and bonding costs. Bonding costs include costs incurred by management to provide a guarantee that they are acting in the best interest of the owners, such as, providing voluntary disclosures. This could explain why managers disclose information voluntarily in order to assure shareholders that they are performing their job as required, hence reducing the monitoring level of shareholders, or as Linsley and Shrives (2000) describe it, 'to keep principals of their backs'.

In order to control for agency costs, two policies are usually employed. The first one deals with avoiding conflict of interest through encouraging managers to act in the interest of owners by using compensation schemes and managerial ownership, for example. The other policy aims at resolving any conflict of interests by employing corporate governance tools such as ownership structures (Jensen and Meckling, 1976).

Based on this theory, corporate governance mechanisms aim to monitor managers, mitigate their opportunistic behaviour and protect shareholders from any conflict of interest. For example, independent directors can enhance the ability of the board to monitor managers due to their objectivity (Laksmana, 2008) and experience (Bear et al., 2010), and their incentive to protect their reputation (Lim et al., 2007). Separation of the CEO and the chairperson positions is another example; as the theory predicts that the separation will enhance the monitoring activity of the board since one of the board's responsibilities is to monitor the actions of the CEO. Meanwhile, CEO duality will impair the board's independence (Donaldson and Davis 1991).

Disclosures are one of the monitoring mechanisms that reduce information asymmetry and agency costs (Barako et al., 2006; Healy and Palepu, 2001; Botosan and Plumlee, 2002), hence, they help stakeholders to make informed decisions about risk assessment and investments (Greco, 2012).

According to the agency theory, disclosures in general and risk disclosure in particular, is a mechanism to reduce the gap between managers and owners. This can be achieved by providing information to all stakeholders about the firm's resources and the use of these resources, hence, increasing their confidence and reducing information asymmetry and agency costs. Different firms with different characteristics (size, value, listing status, and performance) will have different levels of agency costs and therefore different levels of disclosure.

According to this theory, the greater the agency costs the greater the voluntary disclosures made by the firm. i.e. the greater the information gap between the management and different stakeholders, the more likely management are to use disclosures as a monitoring device to manage its relations with stakeholders in order to reduce information asymmetry. Larger firms, firms with high leverage and firms with a high percentage of outside shareholders are expected to disclose more information. One of the limitations about agency theory is the assumption that agents always have opportunistic behaviour; it follows that their actions need to be controlled through an efficient compensation scheme in order to align their interests with those of the owners.

### **3.3.2 Resource Dependency Theory**

Resource dependency theory predicate on the fact that an organization requires continuous resources in order to survive uncertainties in the corporate environment (Steve, 2012). The theory focuses on the firm's need to obtain required resources. Hence, corporate governance is viewed as the methods employed by an organization to gain access to sustainable resources (Pfeffer, 1973). The roles outlined for the board in this school of thought include sourcing information, attracting buyers and identifying suppliers. The directors with the ability and means to widen the capital base of the company are considered as a connection to the resources in the external environment (Korac-Kakabadse et al., 2001; Feffer and Salancik, 1978), such as capital (Mizruchi and Stearns, 1988) and information (Baysinger and Zardkoohi, 1986).

Based on this theory, corporate disclosure is motivated by the need for resources, so a company will disclose more information in order to gain access to resources at lower costs. Investors may overestimate the rates they require for their funding since no adequate information about risk is provided by firms (Healy & Palepu, 2001), so disclosing more information will attract new investors and creditors by decreasing uncertainty and information asymmetry (Pfeffer & Salancik, 1978).

This theory recommends higher levels of outside directors as they have more expertise, connections (Carpenter and Westphal, 2001; Boyd, 1990), and a better reputation to bring to the firm (Haniffa and Hudaib, 2006); making it easier to build better relations with customers, creditors, suppliers and other stakeholders. It also recommends the separation of the CEO and the chairperson positions (Jensen, 1993), since each position requires different sets of resources.

Regarding risk disclosures, the theory explains that the benefits of disclosing risk information include; reduction of capital cost (Botosan, 1997) and improvement in risk management skills (Linsley and Shrives, 2006), which will cover the disclosure costs (Lajili and Zeghal, 2005).

### 3.3.3 Proprietary Cost Theory

Proprietary cost is 'the cost associated with disclosing information which may be proprietary in nature and therefore potentially damaging' (Verrecchia 1983, p. 181). Proprietary cost theory has been used by several studies to explain voluntary disclosure motives (Prencipe, 2002; Low, 1996; Monk, 2010; Moumen et al., 2015). According to this theory, companies refrain or limit the disclosures of voluntary information because of the possibility that competitors may use the information disclosed in a way that is harmful to the company (Hayes and Lundholm, 1996). Therefore it is not expected that a firm will disclose its complete private information (Gigler, 1994), rather a company will weigh the benefits and costs of each disclosure before making the decision of disclosure (Darrough, 1993).

One of the contributions of this theory is the consideration of both benefits and costs when examining disclosure practices (Prencipe, 2004). For example, a company might want to disclose good news when they aim at raising funds, however, they might disclose bad news to reduce competition. Feltham and Xie (1992) argue that managers' decisions about disclosures depend on whether management is concerned with their image in the capital market (i.e. the concern is to raise funds) or with their image in the product market (i.e. the concern is to reduce competition).

Therefore, it is expected that firms operating in an environment with low barriers for new firms to enter the market will disclose less information as they are threatened by new competitors. On the contrary, firms that operate in an environment with high barriers to entry, in terms of a high amount of fixed assets needed to establish the firm, the requirement of patents or the existence of geographical barriers, will disclose more information about their plans, products, customers and profitability, since these disclosures will be less risky than for the firms in the first case. 'Firms in highly competitive industries may regard public disclosures of any kind as potentially costly in the assistance it renders competitors. Firms in less competitive industries may see no costs associated with making public disclosures' (Verrecchia 1983, p.191). It is also expected that some firms may provide general and boilerplate disclosures to limit proprietary costs (Abraham and Shives, 2014).

To sum up, proprietary costs can explain why managers may withhold or disclose information. Clarkson et al. (1994) argue that firms will disclose information when the benefits resulting from disclosures exceed the costs. It must be noted that even non-disclosure can entail proprietary costs since it could be interpreted as bad news that the firm is trying to hide (Verrecchia, 1983).

### 3.3.4 Legitimacy Theory

Based on the legitimacy theory, there is a social relationship between the society and the firm. It follows that while a firm seeks permission from society to operate, it is obliged to be accountable

to it when managing the resources in the environment. Armstrong & Sweeney (2002) defines legitimacy theory as a perception that the actions by a firm are appropriated and bound by values, norms, and beliefs. In terms of legitimacy, the profitability of a firm denotes the inclusive measure of company legitimacy rather than the measure of corporate performance. The failure to comply is associated with dire consequences that include; restriction on the operations of the firm, product demand and resources (Armstrong & Sweeney, 2002).

According to this theory, companies tend to adopt norms, rules and structures that are accepted by the external environment in order to gain legitimacy. A company can use disclosures in order to be legitimised by the society and gain the acceptance from the larger system of which the firm is part of.

In the context of risk disclosures, companies tend to disclose the same levels of disclosures as other firms in the same environment; hence the firm will not be viewed negatively by stakeholders compared to competitors and other firms in the environment.

It is important to consider the overlap between legitimacy theory and stakeholder theory. The two theories have developed from the political economy perspective (Gray et al, 1996), political economy theory contends that economic issues are not to be investigated solely without putting political, social and institutional factors in the picture, political economy theory views reports produced by the firm as a mean of interchange between the firm and the environment (Deegan, 2009). Stakeholder theory and legitimacy theory are both concerned with the firm's environment, while stakeholder theory addresses the firm's accountability to different stakeholders (Laan, 2009) and examines the impact of stakeholders on management (Roberts, 1992), legitimacy theory focusses on the management strategies to maintain legitimacy from the society (O'Donovan, 2002).

Hence, legitimacy theory and stakeholder theory provide overlapping perspectives on assumptions that support political economy (Gray et al, 1995). Gray et al (1995) contends that these two theories should not be treated as discrete competing theories.

Finally, there is a common confusion in the literature between legitimacy theory and political cost theory yet they are two different theories (Milne, 2002). The latter is particularly concerned about the political pressures on firms and their effects on accounting practices. Larger firms or more profitable firms are assumed to be more visible and exposed to higher political interference, it follows that these firms are expected to disclose more information for the purpose of reducing such interference.

The table below summarises the differences between the three theories:

Table 3.1: Summary of legitimacy, stakeholder and political cost theories

Theory	Main assumption	Assumption regarding disclosures
Legitimacy theory	There is a contract between the firm and the environment.	Disclosures are important to gain and maintain legitimacy.
Stakeholder theory	There is a relationship between the firm and all of its stakeholders.	Disclosures are important to meet stakeholders' demands for information.
Political cost theory	Political pressures effect on accounting practices.	Firms can use disclosures to avoid scrutiny from regulators and labour unions.

### 3.3.5 Signalling theory

Signalling theory is another approach that tries to explain management's disclosure practices, the theory was introduced by Michael Spence in 1973, Spence (1973) used signalling theory to reduce information asymmetry between the employer and the employee, he introduced how an employee with a high level of education may signal information about their productivity to differentiate themselves from employees with low level of education. After being employed in the labour market, signalling theory was then used in other disciplines such as accounting disclosures (Campbell et al., 2001).

The main notion behind signalling theory is the need to reduce information asymmetry between the better informed group (i.e. management) and the less informed group (public stakeholders) by reporting information from the former (Ross, 1977). With the existence of information asymmetry, uninformed investors are left unenlightened about the quality of potential investments, they will not be able to differentiate high quality opportunities from low quality ones. Hence, they will either withhold their funds or be willing to offer low prices (Scott, 2003). Therefore, profitable and better performing firms will report certain information to the public to attract investments and enhance their reputation (Verrecchia, 1983). Disclosure is considered as a signal to stakeholders by the firm to announce commitment to standards and social values.

The theory also explains why managers may withhold information, as a result of information asymmetry, investors usually do not know what information managers have. Hence, managers hide bad news taking advantage of investors' unawareness of bad news existence (Dye, 1985). To summarize, high quality firms have greater incentives to report more information to be differentiated

from other firms (Morris, 1987) hence have higher share prices (Levy and Lazarovich-Porat, 1995) and lower cost of capital (Lambert et al., 2007). On the other hand, firms with bad news are less motivated to disclose information because reporting bad news is costly to them (Clarkson et al., 1994).

It is important to mention the similarity between agency theory and signalling theory, both theories realises the existence of information asymmetry between managers and other stakeholders. However, they have different assumptions. While signalling theory revolves about information asymmetry, agency theory was inspired by the separation of ownerships and information asymmetry is one aspect of the theory.

In the context of risk disclosures, it is Intuitive that firms with high quality risk management systems will confidently disclose their risk information and how well their risk management (Linsley and Shrives, 2000).

### **3.4 Conclusion**

This chapter determined risk and risk disclosures definitions that this study will be based at, and discussed disclosures theories that will be employed to explain risk disclosure practices and the association between corporate governance and risk disclosures. Theories discussed in this chapter are agency theory, signalling theory, proprietary cost theory, legitimacy theory and resource dependency theory. Theories will be employed to understand the risk disclosure practices in Jordanian banks.

Agency theory suggests that disclosures reduce agency problems that exists as a result of ownership separation, hence disclosures can be used to prove that management is working in the best inters of owners and other stakeholders. Signalling theory suggests that, because of information asymmetry, high quality firms have incentives to disclose information as an attempt to be differentiated from low quality firms. Proprietary cost theory argues that managers may withhold information because of the way competitors may use this information. Legitimacy theory suggests that disclosure is important to maintain legitimacy.

Although overlap between legitimacy theory and stakeholder theory have been discussed, they focus on different aspects. For example, stakeholder theory is concerned with economic motivations of the firm. A firm tries to meet the demands of powerful stakeholders, since they control the essential resources the firm needs (Roberts, 1992). Whereas legitimacy theory deals with the society's expectations, hence it focuses on the social motivations of the firm (Gray et al., 1995).

Finally, although agency theory and signalling theory are overlapped, Morris (1987) concluded in his study that agency theory and signalling theory are consistent however, they are not equivalent and can be used together in the same research.

## Chapter 4 : Literature review

#### 4.1 Introduction:

Studies on risk disclosure can be classified in several ways, a group of studies focused on the association between firm characteristics and risk disclosures (e.g. Rajab and Schachler, 2009), other studies focused on the influence of corporate governance on risk disclosures (e.g. Ntim et al., 2007). Group of studies measured the quantity of risk disclosures (e.g. Linsley and Shives, 2006), other studies examined the quality of risk disclosure (e.g. Miihknен, 2013). Some studies examined risk disclosures in one year (e.g. Linsley and Shives, 2006), others examined disclosures over a period of time (e.g. Rajab & Handley-Schachler, 2009).

The purpose of this chapter is to provide a literature review on risk disclosure and corporate governance and discusses the element of corporate governance and provides the research hypotheses.

#### 4.2 Risk Reporting

Throughout history, the notion of risk has changed from being seen as a negative natural incident, into a wider definition to include future uncertainties that can be managed in a systematic way (Zachmann, 2014). In the field of business, "economic" risk started to emerge alongside the shipping trade –where the risk included sinking a ship or being attacked by pirates. Recently the consecutive developments in financial markets and in the forms of trade have caused new types of risks to emerge, coupled with techniques to benefit from or to avoid these risks (What is risk?, n.d.). Business risk has been defined as 'an event affecting or potentially affecting the entity's performance and financial position' (Carlon et al., 2003 p.38), and has changed from being totally beyond the control of human beings, to being manageable and avoidable.

Risk management is getting increasingly complex, as more sophisticated business transactions and structures are developed (Voinea and Anton, 2009) abreast with technological developments. One paradox with risk management is that the more complex it becomes, the easier it is for management to manipulate stakeholders. Beck (1998) summarized that in an ingenious way, more environmental laws are being imposed, however, environmental problems are increasing and no one is being held responsible for these resulting problems. With this being the case and with the increased complexity and rapid pace of the current business environment, the need for more disclosures and more regulations (Domínguez and Gámez, 2014,) and the need for risk disclosures in order to hold managers accountable to stakeholders (Caruana, 2011) has increased.

Early recognition of the importance of risk disclosures can be illustrated by many regulatory efforts to improve risk disclosures, mostly in developed countries. Examples include:

(i) Cadbury Report (1992). This report pinpointed the importance of providing relevant information to stakeholders about key risks that may affect future performance.

(ii) Turnbull Report (1999). This report provided a conceptual framework for risk disclosure.

In the US and Canada, the need for better risk disclosures was also recognised early (Solomon, 2000). Examples are Report of the Task Force on Risks and Uncertainties (1987) and the Report of the Task Force on disclosure of insurance (1987) issued by the American Institute of Certified Public Accountants (AICPA). In a survey conducted in 1987 by the Stanford Research Institute in the US, the majority of individual and professional investors asserted that risk related information in annual reports is important or extremely important. In 2001, Big 5 accounting firms (now big 4) in the US signed a petition to the SEC requiring improved disclosures for the sake of enhancing transparency regarding various types of risks. The Canadian Institute of Chartered Accountants (CICA) in Canada issued several papers and projects on the issue of risk disclosure, e.g. Issues paper on Credit Commitments and Derivatives Financial Instruments: Accounting and disclosure Issues for Financial Institutions (CICA, 1989).

Despite the great interest in risk reporting by regulators and accounting professions, research on risk reporting is still limited and in its early stages (Abraham & Shrives, 2014; Woods et al., 2008; Beattie, 2005; Miihkinen, 2012; Davies et al., 2010; Lajili, 2009). Research over the last fifty years has been investigating the level of disclosures and their association with firms' characteristics (Khelifi and Bouri, 2010). The research on risk disclosure specifically, began in the late of nineties, when the (ICAEW) published the paper Financial Reporting of Risk – Proposals for a statement of Business Risk in 1998 (Linsley and Shrives, 2006). The majority of the research focused on developed countries. Examples are (a summary of these studies is provided in table 4.1):

- (i) USA (Blankley et al., 2002; Jorion, 2002; Hodder et al, 2001; Roulstone, 1999; Rajgopal, 1999; Elmy et al., 1998).
- (ii) UK (Elzahar and Hussainey, 2012; Dobler et al., 2011; Rajab and Handley-Schachler, 2009; Linsley and Lawrence, 2007; Abraham and Cox, 2007; Linsley and Shrives, 2006; Rajab and Handley-Schachler, 2009; Dobler et al., 2011).
- (iii) Germany (Homölle, 2009).
- (iv) Italy (Beretta and Bozzolan, 2004; Allini et al., 2014).
- (v) Canada (Lajili and Zeghal, 2005; Lajili, 2009).
- (vi) Malaysia (Amran et al., 2009; Ismail et al., 2013).

However, fewer studies were completed in developing countries, such as the UAE (Hassan, 2009), Egypt (Said Mokhtar and Mellett , 2013), and South Africa (Ntim et al., 2013). The following table provides a summary of these studies

Table 4.1: Summary of risk disclosure studies

Study	Country	Results
Beretta and Bozzolan (2004)	Italy	Risk disclosures are mainly qualitative Quantity of risk disclosures is affected by firm size but not industry.
Allini et al (2014)	Italy	Risk disclosure is affected by board diversity (Gender, education and seniority). Firm size and internet visibility are positively related to risk disclosure Profitability is negatively related to risk disclosure
Linsley and Shrives (2006)	UK	Large variation in risk disclosure among firms Limited quantitative disclosures Risk disclosures are mainly general and lack coherence Firm size is positively related to risk disclosures
Rajab and Schachler (2009)	UK	Regulation pressure has increased risk disclosures levels. Risk disclosures are general and of questionable quality
Abraham and Cox, 2007 -	UK	Risk disclosures depend on both executive and independent directors. Long term institutional ownership is negatively related to risk disclosures
Linsley & Lawrence (2007)	UK	Risk disclosure is difficult or very difficult to understand. No evidence is found to suggest that directors deliberately obfuscate or conceal bad risk news through their writing style.
Elsahar & Hussainey (2012)	UK	Governance mechanisms (institutional ownership, CEO duality, board size, board composition, and Audit committee size) are insignificant to risk disclosures. Large firms are more likely to disclose more risk information.
Dobler et al. (2011)	US, Canada, UK and	Financial risk disclosures are the most disclosed type. Little quantitative and forward looking disclosure.

	Germany	Cross-country variation in risk disclosure is partly caused by domestic risk regulation.
Amran et al. 2009	Malaysia	Risk disclosure in Malaysian firms is less than those in developed countries (e.g. UK) because of the novelty of risk reporting in Malaysia.  Risk disclosure is positively associated to risk disclosures
Ismail et al. (2013)	Malaysia	There is level of noncompliance with risk disclosure requirements.  Internal control risk was the most disclosed type and Sharia compliance risk is the least.
Homölle (2009)	Germany	Risk reporting can affect firm's risk exposure.  Risk reporting may reduce welfare.
Lajili and Zeghal, 2005	Canada	Large variation in risk disclosure among firms  Risk information is mainly qualitative  Limited disclosures on risk assessment and forecast  Limited forward-looking risk disclosure
Lajili, 2009	Canada	Risk disclosures are mainly qualitative  Independence of the board is significant to risk disclosures.
Elmy et al. (1998)	USA	Quality of the quantitative and qualitative disclosures was less than satisfactory.
Roulstone (1999)	USA	Disclosures have improved after FRR 48 adoption.  Wide variation of risk disclosures.  Half of the sample provided details and limitations of their risk measurement.  Sensitivity analysis was the most disclosed risk information.
Hodder et al. (2001)	USA	There is lack of comparable information and lack of detailed quantitative information after the adoption of FRR 48
Blankley et al. (2002)	USA	FRR 48 requirements of market risk qualitative information were generally followed by all DOW 30 companies. Compliance with the other aspects of FRR 48 was mixed
Jorion (2002)	USA	VaR information predicts market risk of trading activities. VaR disclosures are informative to the users to compare the risk profiles of banks' trading portfolios.
Rajgopal (1999)	USA	Several types of risk disclosures such as disclosures on derivatives and sensitivity analysis are associated with firm's price sensitivity.

Hassan (2009)	UAE	Levels of risk and industry type are significant to risk disclosures and firm size is not.
Ntim et al 2013	South Africa	<p>Disclosures are largely non-financial, historical, good news and qualitative</p> <p>Blockholder and institutional Ownership are negatively associated with risk disclosures.</p> <p>Board diversity, size and independence are positively associated with risk disclosures</p> <p>CEO duality is insignificant.</p>
Said Mokhtar and Mellett 2013	Egypt	<p>There is low level of compliance with risk disclosure requirement.</p> <p>Disclosures are mainly qualitative and backward looking.</p> <p>Risk disclosures are unhelpful in assessing firm's risk profile.</p> <p>Competition, CEO duality, board size, ownership concentration are key determinants of risk reporting.</p>

Certain areas related to risk disclosures are being discussed less than others in the risk disclosure literature; for example, the effect of corporate governance on the level of risk disclosure and the effect of risk disclosure on market liquidity (Elshandidy and Neri, 2015). However, research on the effect of firm characteristics on risk disclosure is older and more common in the literature. Research on the effect of regulation on the quality of risk disclosures is also limited (Miihkinen, 2012; Beretta and Bozzolan, 2004). According to Abdallah et al. (2015), literature of risk reporting contains little research on the effect of management's characteristics and the effects of corporate governance on the level of risk disclosures, especially in developing countries.

Most of the research on risk reporting has examined the level of risk reporting in a single year, (Beretta & Bozzolan, 2004 and Linsley & Shrives, 2006) although some researchers have investigated the change of risk disclosures over a period (Rajab & Handley-Schachler, 2009; Liu, 2006).

The consensus of literature on risk disclosure is that current risk disclosures practices are variant and uneven among firms in the same country (Kajuter, 2004; Rajgopal, 1999; Carlon et al., 2003; Lajili and Zéghal, 2005; Mohobbot, 2005; Linsley and Shrives, 2006). The majority of risk reporting research concludes that risk reporting does not help investors in their decision-making (Abraham & Cox, 2007; Solomon et al., 2000; Abraham & Shrives, 2014; Davies et al., 2010; Dobler et al., 2011). This is due to generally irrelevant and mainly qualitative risk information in firms' annual reports (Linsley and Shrives, 2006). Several explanations can be found in the literature to explain why

managers refrain from disclosing risk information - although the exact reason for non-disclosure is not yet clear (Marshall and Weetman, 2007). Some factors include the costs incurred when collecting and preparing risk information (Binh, 2016; Cormier et al., 2005), the fear of disclosing information that is sensitive to the firm (Marshall and Weetman, 2007) and fear of litigation resulting from management uncertainty about their measurements (Dobler, 2008; Linsley and Shrives, 2000). On the other hand, many studies suggest that disclosing risk information will reduce the cost of capital (Hail, 2002; Healy and Palepu, 2001; Lang & Lundholm, 1996) and will improve the image of the firm and inform the market that the company is able to determine and manage their risks (Akerlof, 1970; Branco & Rodrigues, 2006). Taking into consideration that firms need complicated information in order to manage their risks, firms seem to hide information from the public, and include more information of higher quality in internal reports than the information they present in their external report, which results in information asymmetry.

A content analysis of 300 Canadian firms by (Lajili and Zeghal, 2005) revealed high levels of mandatory and voluntary risk management disclosures, and that most of the disclosures are related to financial disclosures. However, these disclosures are mainly general, qualitative and lacking uniformity and clarity, which is consistent with later research in the same context of Canada, where Lajili's (2009) research on the effect of corporate governance on risk disclosures employed content analysis on the reports of 225 Canadian firms for the year of 2002. The research indicated that the information disclosed by the firms is predominantly qualitative.

Consistent with Lajili and Zeghal (2005) and Linsley and Shrives (2005), content analysis in the UK reported that risk information which is disclosed usually refers to financial risks, and most of the disclosures are qualitative. The research also suggests that managers refrain from disclosing detailed sensitive information that may be used by competitors.

A content analysis of 79 annual reports of UK firms by Linsley and Shrives (2006) indicated the existence of the information gap. According to the study, risk disclosures were qualitative and mainly composed of general statements of risk disclosures. In their content analysis of 52 listed UK firms, Rajab and Handley-Schachler (2009) concluded that in spite of the increase in risk disclosure levels in response to the development in accounting regulations, the quality of these disclosure is still questionable. The study covered the period from 1998 to 2006, which witnessed many accounting regulations in the UK, for example The Combined Code (1998) and Turnbull Report (1999).

The great majority of the research indicates that the current estate of risk disclosure is insufficient (Domínguez and Gámez, 2014), qualitative in nature (Dobler, 2008; Rajab and Handley-Schachler, 2009; Dobler et al., 2011), past or non-time (Rajab and Handley-Schachler, 2009; Dobler et al., 2011;

Abraham et al., 2012) and neutral (Rajab and Handley-Schachler, 2009; Abraham et al., 2012). Campbell and Slack (2008, p.21) reported that from the perspective of investment analysts, voluntary disclosures in the annual reports of a sample of UK banks are 'meaningless', 'generic', 'boilerplate' and 'stating the obvious'. However, In the US, Linsmeir et al. (2002) found that forward-looking market risk disclosures mandated by the SEC have been useful and have reduced investors' uncertainty regarding the effects of market prices changes on firm value and firm risk exposure, as shown by reduced trading volume sensitivity to changes in commodity prices, interest rates and exchange rates. In the same field of the US, Jorion (2002) studied value-at-risk disclosures of 8 big commercial banks in the US for the period 1995-1999. He found that Value-at-Risk disclosures do help investors in predicting variability of trading revenues. However, the 2007/2008 financial crisis proved the results of these studies to be dubious.

Hence, many researchers tried to understand the determinants and motivations of risk disclosures and the reasons that make managers refrain from disclosing obvious detailed information about firms' risks that helps investors make informed decisions. (Abraham and Cox, 2007; Konishi and Ali, 2007; Beretta and Bozzolan, 2004; Hassan, 2009; Allini et al., 2014; Elshandidy and Neri, 2015; Abdallah et al., 2015).

Oliveira et al. (2013) in their literature review of risk reporting research, suggest that research of the economic and social perspectives of risk reporting determinants and motivations might be able to explain risk reporting practices, and they add that this is an unexplored area of risk reporting research.

We can distinguish between two streams of risk reporting in the literature. The first deals with the results and the usefulness of risk disclosure which is measured through the investigation of the relationship between risk reporting and proxies such as, cost of capital (Beltrán, 2014), market liquidity (Elshandidy and Neri, 2015), stock return volatility (Kravet and Muslu, 2013), and analysts' earnings forecast dispersion (Kravet and Muslu, 2013). The second is the study of the determinants of risk reporting (Allini et al., 2014; Elshandidy and Neri, 2015; Ntim et al., 2013; Lajili, 2009; Dobler, 2008 and Abraham and Cox, 2007) which is the stream that this study belongs to.

Mainly, studies that discussed determinants of risk reporting divaricate into two streams. The first stream deals with the effects of firm characteristics on firms' disclosures about risk and risk management (Linsley and Shives, 2006; Jorgensen and Kirschenheiter, 2003; Abraham and Cox, 2007; Elzahar and Hussainey, 2012; Beretta and Bozzolan, 2004 and Meier et al., 1995). The second stream deals with the effects of corporate governance on the levels of risk disclosures (Mokhtar and

Mellet, 2013; Elshandidy and Neri, 2015; Allini et al., 2014; Abdallah et al., 2015 and Ntim et al., 2013).

Two main conclusions can be inferred from the studies on risk disclosures determinants:

- (i) There are no conclusive results regarding the effects of firms' characteristics and corporate governance mechanisms on the level of risk discourses. However,
- (ii) These results were found to be different among different countries and to be affected by the culture and differences in legal systems. Mixed results regarding what determines the level of risk disclosures according to Ahmed and Courtis (1999, p.36) are due to 'socio economic and political environments between countries'.

Khelif and Hussainey (2014) in their meta-analysis, emphasized the effect of different legal systems, cultures, and types of industry on the relationship between risk disclosure and number of determinants. They suggested that these moderators should be taken into consideration when analysing the determinants of risk reporting among different firms and countries.

In the same vein, Beretta and Bozzolan (2004) recommended that the quality of risk information disclosed by companies can be explained by the system of regulation in the environment in which the company operates. In a cross country study on 23 countries, Beekes et al. (2016) reported that firms in common law countries disclose more information compared to firms in Code law countries, and firms with stronger corporate governance disclose more information than firms with weak corporate governance, even in code law countries.

In a recent multi-country research based on non-financial firms from the UK, The US and Germany from 2005 to 2010, Elshandidy et al. (2015) investigate firms and country characteristics that affect risk disclosures, they distinguish between mandatory and voluntary risk disclosures. They found that culture and legal system explain mandatory disclosures more than voluntary disclosures. This implies that these differences in culture and legal system should be taken into consideration when establishing rules and regulations regarding risk disclosure. This is consistent with a study by Williams (1999) on the Asia-Pacific region, where the author reported that variations in the level of voluntary, environmental and social accounting disclosures are explained by the differences in the cultural and political systems.

In the Islamic context, few studies examined the issue of risk reporting. Amran et al., (2009) in their study in Malaysia, addressed the effects of firms' specific characteristics on the level of risk reporting. The study reported a low level of disclosures compared to firms in developed countries

such as the UK. This could be in part due to the use of a risk management checklist used in the UK, created by Linsley and Shrives (2006), which may not be suitable in the Malaysian context.

In very recent research, Abdallah et al. (2015) conducted a sample of the GCC countries; the authors examined the level and determinants of risk disclosures. They found that, in general, Islamic firms disclose less information compared to conventional firms, and that firms across gulf countries differ in their level of risk disclosures despite the similarities shared among these countries in terms of culture, political and economic systems. The main finding was that firms with higher corporate governance quality disclose more information about risk.

Ismail et al. (2013) studied risk disclosures in 17 Islamic financial institutions in Malaysia around the period of financial crisis, and discovered that Islamic institutions have a satisfactory level of risk disclosures, although disclosures for sharia compliance were the lowest among other types of disclosures. The index constructed by the authors contained mandatory and voluntary general categories, although a problem with the index is the generality and comprehensiveness of the items included in the index. For example, a firm has to disclose any information related to market risk without considering the quality of the disclosure. A firm will get the maximum score when disclosing information related to all of the general categories contained in the index. The structure of the index could be a main reason for the reported conclusion of the study, which suggested that institutions disclose satisfactory information about risk.

Hassan (2009), in a study conducted on corporations in UAE, developed a risk disclosure index and examined the effect of firm size, industry affiliation, level of risk and reserves. He finds that industry affiliation and debt to equity ratio – as a measure of risk- are significant determinants of risk disclosures, while other factors were found to be not significantly related to risk disclosures.

In the Jordanian context Naser (1998) and Naser et al. (2002), reported an improvement in the depth of corporate disclosures after the adoption of IAS in 1990, compared to what El-Issa (1988) has reported. Naser et al. (2002), concluded that in spite of the improvement, the level of Jordanian firms' compliance is still low and is restricted to big firms. It is worth mentioning that Naser et al. (2002) found that the level of disclosure is related to profitability, size, gearing, liquidity and audit firm status.

#### **Risk disclosures in the banking sector:**

When it comes to banking sector, banks are risk prone entities hence their disclosures should be examined independently (Linsley & Shrives, 2006). Research on the effect of governance on the level of risk reporting is limited (Barakat and Hussainey, 2013), existing literature has focused on the

bank's characteristics such as size, leverage, profitability and risk level on risk disclosures (e.g. Bischof, 2009; Helbok & Wagner, 2006; Linsley et al., 2006; Oliveira, et al., 2011; Woods et al., 2009; Yong et al., 2005).

For example, Helbok and Wagner (2006) examined the determinants of risk disclosures in the annual reports banks in North America, Asia, and Europe from 1998 to 2001. Quantity and quality of risk disclosures have increased over the examined period. The authors found that less profitable banks provide more detailed risk disclosures.

Linsley et al. (2006) examined the effects of bank characteristics, including; size, profitability and risk level on the quantity of risk disclosures in the 2002 annual reports of 18 British and Canadian banks. The authors found that bank size positively affects the quantity of risk disclosures, whereas profitability and risk level were not found to be associated with the quantity of risk disclosures. The authors provided two possible explanations for the latter result, it is that the way profitability was measured (ratio of book-to-market value) was not proper, or banks tended to keep their risk practices confidential.

Results found by Savvides and Savvidou (2012) in their content analysis on the annual reports of 30 banks in several countries, are consistent with the rest of the literature. Firstly, the authors reported that there are significant differences in risk disclosure practices across banks in different countries and that banks in UK and USA have better market risk disclosures. Finally, the study reported positive association between risk disclosures and banks size.

Hassan (2009), in a study conducted on financial and nonfinancial firms in UAE, developed a risk disclosure index and examined the effect of firm size, industry affiliation, level of risk and reserves. He finds that industry affiliation and debt to equity ratio – as a measure of risk- are significant determinants of risk disclosures, while other factors were found to be not significantly related to risk disclosures.

As mentioned above studies on the effect of governance on risk disclosures are limited, Jizi (2015) has examined the association between governance and risk disclosures in the annual reports of US commercial banks in 2009 and 2010. The author reported that banks with larger board size and independent board of directors provide wider content of risk disclosures. Moreover, results showed that CEO duality is positively related to risk disclosures.

Barakat and Hussainey (2013) studied the effect of the country level of bank supervision and regulation and firms' level of governance on the level of risk disclosures in the annual reports European banks in the years 2008, 2009 and 2010. The main result was that bank supervisors, when

powerful and independent, can curb managers' unwillingness to disclose risk information voluntarily, hence they can serve as outside monitors over management. With regard to governance, results show that independent boards and effective audit committee improve the quality of risk disclosures.

A stream of research on risk disclosures in bank went on examining the attributes of risk disclosures, for example, a study by Lewis (2006) reported that banks risk management disclosures are not adequate and needs improvement and Linsley et al. (2006) concluded that qualitative and historical risk disclosures is significantly higher than quantitative and future risk disclosure.

A study by the Basel Committee (2002) examined risk disclosures of 55 banks in 13 countries for the period 1999-2001. Among the study results are:

- (i) Most banks have disclosed extensively their internal models for market risks
- (ii) Most banks disclosed quantitative information about credit risks while fewer banks have provided basic disclosures about their models for credit risks
- (iii) Disclosures of financial risks, namely credit and market risks, are higher than operational and legal risks disclosures (Basel Committee on Banking Supervision 2002).

Rattanataipop (2013) examined risk disclosures in the annual reports of six UK banks from 1995 to 2010, results show that the majority of risk disclosures are neutral, with limited disclosures of bad news. In addition, quantitative disclosures were decreasing over the period of the study. Credit risk information (financial) were the most disclosed type.

A study by Oliviera et al. (2011) focused on risk disclosures in the annual reports of 190 Portuguese credit firms (including banks) for the year 2006, findings showed that risk disclosures lacked comparability, reliability and understandability, examined firms used different practices in reporting risk exposures, capital structure and adequacy and sensitivity analysis. Moreover, numerical risk disclosures lacked sufficient explanation and were left to the reader interpretation.

In a cross-country study, using the Basel Committee and IOSCO recommendations of 1999, Yong et al. (2005) conducted an index to examine the level of disclosures on derivatives in a sample of Asia Pacific Banks annual reports. The study revealed a relatively low compliance with the previous mentioned recommendations, as well as a low level of quantitative information is detected. The authors reported significant variations in the level of risk disclosures by across the examined countries. Furthermore, the study reported higher disclosures by Australian firms compared to firms

in South Asia, which confirms the common idea that firms in more developed countries and economies disclose more information.

Breadth of research went on examining the usefulness of risk disclosures in the banking sector, it was found that better risk disclosures enhances risk taking discipline (Nier and Baumann, 2004; 2006). In a study on the effect of risk disclosures on cost of equity capital and performance Alnahar (2016) examined the annual reports of 30 listed banks in Bangladesh over the period (2006-2012), findings showed that risk disclosures reduces cost of capital.

Perignon and Smith (2010) examined quality of value at risk disclosure by US, Canadian and international banks from 1996 to 2005. Findings showed that value at risk disclosure is useful in to predict the change in the future trading return. Hirtle (2007) examines the impact of disclosing information banks risks in a sample of large US bank holding companies, results showed that greater disclosure enhances risk adjusted return and reduces firm risk.

Banks in Jordan adhere to IFRS regulations when it comes to risk disclosures. In 2007, the International Accounting Standards Board (IASB) issued IFRS 7 'Financial Instruments: Disclosures'. Although the rule is not specific for banks, banks have to adhere to it. Regarding Basel II, Jordan chose to implement the first and second pillars and not to adhere to the third pillar, which covers risk disclosures. The non-adherence to the Pillar 3 was justified by the Central Bank of Jordan as that Pillar 3 is equivalent to IFRS 7 and that Jordanian banks are all in adherence with the rules of IFRS 7. Some studies have reported that being a member in the Basel Committee has no effect on the increase in the levels of disclosures (Yong et al., 2005)

#### **4.3 Corporate Governance**

Many definitions of corporate governance can be found in the literature. Mead & Bampton (2006) define corporate governance as the processes and structures through which business operations of a firm are controlled and managed, which is in consonance with the definition of the Cadbury Report: corporate governance is the 'system by which companies are directed and controlled' (Cadbury Report 1992). The (OECD) defines corporate governance as 'a set of relationships between a company's management, its board, its shareholders and other stakeholders' (OECD 2004 p.11). It follows that corporate governance focuses on the interests of shareholders in an organization by ensuring proper accountability for long term improved shareholders' value. According to Konishi & Ali (2007), corporate governance is associated with credibility, transparency and accountability towards the handling of business operations, as well as finances of an organization. As such, an effective channel of communication and information dissemination is critical in the implementation of these attributes and fostering excellent corporate performance.

Corporate governance has received great attention as a determinant of risk reporting practices adopted by firms because 'corporate governance is an important determinant of disclosure compliance' Ettredge et al. (2011 p.871). According to the OECD, a good corporate governance system should ensure the disclosure of all material information on financial and operation matters, governance structure, related party transactions and risk factors among other issues (OECD, 2015).

Lajili (2009) discusses that risk management and corporate governance are intertwined and that corporate governance affects the strategies and disclosures of risk management. One way to look at the relationship between corporate governance and risk disclosures is that a good risk management system is determined by strong corporate governance structures; in the sense that corporate governance determines the level of risk acceptable to the firm and establishes the strategies to detect and manage those risks (Ellul, 2015). The UK Corporate Governance Code principle C.2 *Risk Management and Internal Control* states that: 'The board is responsible for determining the nature and extent of the significant risks it is willing to take in achieving its strategic objectives'. The board should maintain sound risk management and internal control systems. (Financial Reporting Council 2014 P.5). Moreover, better governance practices will lead to better communication channels between the firm and shareholders (Solomon, 2007). Hence, better disclosures including risk disclosures are expected to be available to stakeholders.

Empirical evidence suggests that corporate governance has a positive effect on voluntary disclosures (Ghazali, 2008) and on risk disclosures (Solomon and Solomon, 2000).

Reforms for corporate governance are being conducted around the world, especially after the financial crisis (Millar et al., 2005), and recently, researchers are investigating the association between corporate governance and risk reporting (Mokhtar and Mellet, 2013; Elshandidy and Neri, 2015; Allini et al., 2014; Ntim et al., 2013; Mertens & Blij, 2008). Another stream of research on risk reporting continued to explain the effect of specific firms' characteristics on the quantity and/or quality of risk reporting (Cahan et al., 2005; Linsley and Shrives, 2006; Jorgensen and Kirschenheiter, 2003; Abraham and Cox, 2007; Elzahar and Hussainey, 2012; Beretta and Bozzolan, 2004; Meier et al., 1995).

The importance of risk reporting lies in helping investors in making their own risk assessment and thus, reducing uncertainty (Linsmeir et al., 2002), managing their own risk profiles (Linsley and Shrives, 2005) and making wise judgments regarding their own investment (Hutton, 2004; Rajgopal, 1999). The relevance of corporate governance is exhibited in the way it reduces risks for investors and provides optimum strategies for operation of firms. The Cadbury Report (1992) and its successors, focused on the disclosure of risk information by UK companies, as part of the agenda for

reforming corporate governance. Chiang (2005) argued that companies with better corporate governance have higher standards of disclosure and transparency, and this has been proven true for risk specific types of disclosures. Steve (2012) argues that with good practices in place, the management should be able to place appropriate measures to enhance required risk reporting standards. The forth principle of corporate governance principles issued by the organization for economic cooperation and development (OECD) states that corporate governance should ensure that the disclosure and transparency of all the issues regarding the corporation are properly established (OECD, 2004). In line with this, The UK Corporate Governance Code emphasized the importance of financial reporting for effective corporate governance, and the responsibility of the board to provide 'a fair, balanced and understandable assessment' of the company's operations (Financial Reporting Council, 2014). Bhagat and Black (2002) posit that corporate governance has a direct positive bearing on the performance of an organization and the general growth of an economy.

Studies in the literature have assented on the relationship between corporate governance and disclosures in general (Bushman and Smith, 2001; Lim et al., 2007; Patelli and Prencipe, 2007; Sloan, 2001), the importance of disclosures in reducing agency costs and information asymmetry (Campbell et al., 2014), and the importance of disclosures to stakeholders to make informed decisions (Jorion, 2002; Miihkinen, 2013; Rajgopal, 1999), but not as much research has been conducted on risk disclosures in particular (Elshandidy and Neri, 2015).

Ho and Taylor (2013) reported that strong corporate governance structures have a positive impact on a firm's reporting financial, forward-looking and corporate social responsibility information. According to Taylor et al. (2010), the stronger the structure of corporate governance, the better the risk management information disclosed by firms, which is consistent with what Byard et al. (2006) and Karamanou and Vafeas (2005) reported, that good corporate governance is positively associated with how informative disclosures are.

Karamanou and Vafeas (2005) examined the effect of several attributes of corporate governance on the level of management earnings forecast. The authors found that independence of the board and financial experience on the audit committee are positively associated with the level of forecast. However Elzahar and Hussainey (2012) examined the effect of corporate governance and firms' characteristics on the level of voluntary risk information in the interim reports of 72 UK companies, and interestingly, they reported insignificant relationships between corporate governance and risk disclosure.

### 4.3 Elements of corporate governance

Armstrong and Sweeney (2002) assert that corporate governance has major elements which should ensure effective and improved corporate performance. These include board commitment, good board practices, effective control environment, transparent disclosure and appropriate shareholder rights. Steve (2012) also addressed other essentials of corporate governance which included separation of the roles for various groups of the firm management; the chairman and Chief executive officer (CEO), board committees and non-executive directors. Yet, there is no universal code of corporate principle that a board of directors embraces in their management duties, but they are influenced by the legal framework, economic and political environment, and business practices.

A longitudinal study by Barako et al. (2006) reported that the existence of an audit committee, board composition (the ratio of non-executive directors to total number of directors), and ownership structure all affect the level of voluntary disclosure. Hidalgo et al. (2011) studied the effect of several corporate governance mechanisms on the level of intellectual capital information disclosed voluntarily by a sample of Mexican firms, and they found that the size of the board and the institutional ownership have the ability to enhance voluntary disclosures of intellectual capital.

Theoretically, it is expected that effective corporate governance will result in better risk disclosure practices. However, empirical studies provided mixed results on the effective mix of corporate governance elements and their effects on disclosures, which will be discussed in the following section.

#### 4.3.1 Board of Directors

In the modern format of organizations, managers are expected to act in the best interests of owners. Whilst managers have their own interests, the expected role of managers is at risk, hence, in the presence of this agency problem, the job of the board of directors is to hire and monitor management, and ensure that management is acting in the best interest of shareholders. The board of directors is the organ responsible for ensuring that the management is accountable to the shareholders and stakeholders. A board of directors is without doubt the most important mechanism of corporate governance, and has received considerable attention from researchers in the corporate governance literature, as they are considered the final decision making and management body. On the other hand the effect that an effective board of directors has on the quality of disclosures has been reported by a large part of the literature (Anderson et al., 2003; Ajinkya et al., 2005; Karamanou and Vafeas, 2005; Allegrini and Greco, 2013; Domínguez and Gámez, 2014)

Principle VI.D.7 of OECD principles state that in order to ensure the integrity of reporting and monitoring systems, the board will have to determine clear lines of responsibility and accountability throughout the organisation (OECD, 2004). Boards of directors are responsible for the governance of their companies (Cadbury report, 1992).

Characteristics of the board of directors have been the subject of research in order to determine the proper characteristics that will contribute to better corporate governance. Research by Chhaochharia and Grinstein (2005) to analyse the trends of the boards of directors over time reported an increase in the size and the independence of the board over the period of the study. Linck et al. (2006) in a study on 7,000 firms over the period of 1999-2004, consistent with the previous research, reported an increase in the size and the independence of the board after the passage of Sarbanes Oxley Act. The study emphasised the importance of firm characteristics when it comes to determining the proper structure of the board, which may explain the different results in the literature about the effects of internal corporate governance mechanisms on different aspects of a firm's performance.

Throughout the literature several characteristics of the board of directors were discussed regarding their effect on the level of disclosures. Examples are; board size (Mukhtar and Mellet, 2013; Ntim et. Al, 2013), committees on the board (Vafeas 2005), duality of the CEO (Mukhtar and Mellet 2013), independence (Ntim et al., 2013; Bhagat and Black, 2001; Elshandidy and Neri, 2015). Other aspects of board composition such as; age (Murray, 1989), gender (Stephenson, 2004; Ntim et al., 2013), and education, (Murray, 1989) have also been the subject of the research to date.

#### **4.3.1.1. Board size**

The size of the board of directors is discussed widely in the literature of disclosures (Htay et al., 2012; Domínguez and Gámez, 2014; Elshandidy and Neri, 2015), as it is assumed to affect the ability of the board to effectively monitor management and to be associated with good firm performance (Lou, 2005). Mokhtar and Mellet (2013) view it as an opportunity to have diversified expertise, including accountants, which may be a motivation to check into risk management practices.

Theoretically, resource dependency theory suggests that that larger boards will facilitate the monitoring function over management and will provide the firm with more resources (Pfeffer and Salancik, 1978) and more directors on the board are expected to enrich the firm with their experiences (Hidalgo et al., 2011) as well as positively affect the firm's decisions about voluntary disclosures (Gandí'a, 2008). A board is also expected to include sufficient independent directors to form committees in the board. In addition, larger boards will ensure higher presentation of

stakeholders (Ntim & Soobaroyen, 2013) hence, according to legitimacy theory, enhances legitimacy. A large number of directors may on the other hand hinder the communication and coordination processes (Jensen, 1993), and may increase the possibility of dissension and conflicts on firms' decisions, although Beiner et al. (2004) stated that management capabilities in large boards can make up for the problems in communication.

Based on agency theory, larger boards lead to higher agency costs and free rider problem where members of the boards are expected to have passive roles, and it makes it harder for the CEO to monitor the members of the board (Jensen, 1993). Hence, it is expected that larger boards' control activities to be less efficient, this will negatively affect the quality of disclosure.

Small boards, have less experiences (Guest, 2009). Ahmed et al. (2006) found that a smaller number of directors might increase a director's work load and hence decrease their effectiveness, where this work load could be distributed more evenly on a larger board (Grove et al., 2011).

A non-linear relation between the size of the board and the level of disclosures was found by Hidalgo et al. (2011 p.493), specifically an increase in the size of the board will have a good effect on the level of disclosures when there are up to 15 members of the board. The authors explained that 'poorer cooperation' and 'more time for decision making' will exceed the benefits obtained from a large number of directors, for a board of directors numbering greater than 15.

In the literature on the banking industry in particular, board size was found to positively affect disclosures of risk management information (Jizi, 2013), and corporate social responsibility information (Das et al., 2015; Jizi, 2013). Htay et al. (2012) found that the size of the board is positively associated with the level of social and environmental disclosures.

Recent studies are supportive of the positive association between large boards and risk disclosures (Allegrini and Greco, 2013; Elshandidy et al., 2013; Ntim et al., 2013; Elshandidy and Neri, 2015). While Cheng & Courtenay (2006) and Elzahar and Hussainey (2012) did not find a significant association between board size and the levels of voluntary disclosures. Goodstein et al. (1994) and Byard et al. (2006), reported a negative impact on the effectiveness of boards, hence a negative impact on the level of disclosures

According to Krishnan and Visvanathen (2009), proper board size depends on many factors including; industry, firm size and the complexity of the firms operations. Owing to the complex industry of banks and to the amount of regulation the industry is subject to and the great part of risk disclosures literature it is expected that:

**H.1 There is a positive relationship between the size of the board and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.2: Board size and disclosures

Source	Prediction
Resource dependency theory (Jizi 2013; Das et al 2015; Jizi 2013; Htay et al., 2012; Allegrini and Greco, 2013; Elshandidy et al., 2013; Nitm et al., 2013; Elshandidy and Neri, 2015)	Positive
Agency theory	Negative
Goodstein et al. (1994) and Byard <i>et al.</i> (2006)	

#### 4.3.1.2. Board Independence

An independent non-executive director is defined as a director 'whose directorship constitutes his only connection to the bank' (CBJ, 2007, p. 11), and according to the code, the board should at least have three independent non-executive directors.

According to the Agency theory, independent directors are expected to effectively monitor the performance of managers (Walsh and Seward, 1990), hence it is expected that the existence of independent non-executive directors would enhance the level of transparency. The resource dependency theory posits that independent non-executive directors will provide the firm with more resources, as they have more experiences and contacts (Hillman et al., 2000; Carpenter and Westphal, 2001). Independent directors are preferred by legitimacy theory as well, they can be used to prove representation of outside stakeholders (Freeman & Reed, 1983) hence increasing legitimacy. In addition Anderson et al. (2004) concluded that firms with more independent boards and audit committees are more credible in the eyes of the market.

OECD (2012, 2011 and 2005) has emphasized the importance of non-executives on the board of directors, as they increase the level of independence against management. With regards to non-executive directors, the Cadbury report stated that 'their views will carry significant weight in the board's decisions' (Cadbury report 1992 p.19-21). The Combined Code on Corporate Governance (2003) emphasized the importance of independent directors so that no group shall dominate the board. The UK Corporate Governance Code stated that the board should have an appropriate

combination of executive and non-executive directors, and that the latter should evaluate the performance of the chairman at least annually (Financial Reporting Council 2014).

Laksmana (2008) discussed that more independent directors on the board will contribute to less conflicts of interest, and that disputes with management could be solved objectively, with independent directors acting in the best interest of shareholders. The author found that independence is positively related to the level of corporate governance and compensation voluntary disclosures.

Lim et al. (2007) argued that one motivation for independent directors to disclose information voluntarily is to enhance their reputation. By disclosing more information and being more transparent they are sending signals to the market that they are working in favour of shareholders.

A stream of research examined the effect of independence on audit fees (Hay and Knechel, 2004; Carcello et al., 2002) and they reported a positive association; indicating that boards with more independent directors care more about the quality of financial reporting.

On the other hand, executive directors are more knowledgeable and familiar with the firm and the industry, and have more connections with management (Bear et al., 2010) which might facilitate communication and reduce conflicts with management. However, executive directors, while performing their tasks in developing and implementing firm's decisions and operations, may impair their role in monitoring managers and distort their objectivity since they will be monitoring themselves as well.

Empirically, the greater part of the literature of disclosure regarding the composition of the board reported a positive association with level of disclosure (Elshandidy et al., 2013; Jizi, 2013; Li et al., 2010; Chau and Gray, 2010; Li et al., 2008; Donnelly and Mulcahy, 2008; Abraham and Cox, 2007; Patelli and Prencipe, 2007; Byard et al., 2006; Cheng and Courtney, 2006; Chen and Jaggi, 2001). Beasley (1996) reported a negative association between the existences of non-executive directors and fraudulent financial reporting. Oliveira et al. (2011) and Lajili (2009) found that the existence of independent directors enhances the level of risk disclosures.

Barako et al. (2006) and Eng and Mak (2003) reported a negative effect due to the ratio of non-executive directors on the level of voluntary disclosure. The latter study, which examined firms in Singapore, explained the result by the fact that block holders dominate ownership, hence they have the ability to obtain information directly from the management.

Other studies did not find an impact caused by the board composition on disclosures (Elzahar and Hussainey, 2012; Hidalgo et al., 2011; Lim et al., 2007).

Based on theories expectations and the vast majority of literature, this study expects that the existence of independent directors will increase the level of risk disclosures.

**H.2. There is a positive association between the levels of independence on the board of directors and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.3: Board independence and disclosures

Source	Prediction
Resource dependency theory Legitimacy theory Agency theory	Positive
Elshandidy et al. 2013; Jizi 2013; Li et al. 2010; Chau and Gray 2010; Li et al. 2008; Donnelly and Mulcachy 2008; Abraham and Cox 2007; Patelli and Prencipe 2007; Byard et al. 2006; Cheng and Courtney 2006; Chen and Jaggi 2001)	
(Barako et al., 2006 and Eng and Mak, 2003)	Negative

#### 4.3.1.3. CEO duality

Some of the earliest research on CEO duality (i.e. when the chief executive officer is the chairman of the board of directors) by Berg and Smith (1978), reported that firms with separate leaders in the CEO and chairman positions have better performance in terms of stock price appreciation, return on equity and return on investment. In 1992 the failure of General Motors and IBM, and recently the failure of Goodyear Tire and Sears, were linked to the duality of CEO.

CEO duality has been the subject of several studies (Jensen, 1993; Finkelstein and D'aveni, 1994; Cheng and Courtenay, 2006; Elshandidy et al., 2013; Chen, 2014; Samaha et al., 2015). According to the Agency Theory, these two positions should be occupied by two different people because these positions entail opposing responsibilities; coupled with the fact that the board of directors has to control and monitor the actions and decisions of the management. Hence the CEO serving as the chairman of the BOD will affect the ability of the BOD to properly control the management (Morck et al., 1989).

Greater power with the same person as a result of CEO duality may lead the chairman (CEO) to withhold information especially bad news from being disclosed (Apostolou and Nanopoulos, 2009). Moreover, the concentration of power may adversely affect board's monitoring function and accordingly disclosure policies (Forker, 1992).

Agency theory suggested that when the two positions are held by the same person this may lead to internal control failures, due to the inefficacy of the board when it comes to monitoring the CEO (Jensen, 1993); because the concentration of power in the hands of one person will distort the board's monitoring effectiveness (Fama and Jensen, 1983) which can have a negative effect on disclosures. Resource dependence theory indicates that duality reduces the firm's chances to expand access to resources, such as executive experiences (Henry, 2008). The UK code of best practice recommended that the two positions should be held by two different persons, and in Jordan, according to the corporate governance code, the chairman of the board should not hold any executive position in the firm at the same time.

Several empirical studies reported that CEO duality has a negative impact on the level of disclosures (Chau and Gray, 2002; Eng and Mak, 2003; Gul and Leung, 2004; Allegrini and Greco, 2013; Forker, 1992; Haniffa and Cooke, 2002), while Ho and Wong, (2001) and Ntim et al. (2013) did not find a significant impact.

Based on (i) agency cost theory that suggested a negative relation between duality and disclosures. (ii) The corporate governance code in Jordan does not allow for duality, concluding that duality is seen as a negative practice. (iii) The greater part of research support the separation of the two positions. It is expected that:

**H.3. There is a negative association between CEO duality and the level of risk disclosures in the annual reports of the Jordanian banks.**

Table 4.4: Duality and disclosures

Source	Prediction
Agency theory	
Resource dependency theory	
Chau and Gray, 2002; Eng and Mak, 2003; Gul and Leung, 2004; Allegrini and Greco, 2013; Elzahar and Hussainey 2012; Forker, 1992; Haniffa and Cooke, 2002	Negative

Ho and Wong, 2001 and Ntim et al. (2013)	Insignificant
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#### 4.3.1.4. Financial experience on the board

Board members are supposed to have : knowledge and skills to adequately monitor an organization (Nicholson and Kiel, 2004), legitimacy and abilities to link the firm to key stakeholders or other important parties (Ong and Wan, 2008), professional accounting and financial expertise to report in a more straightforward manner, experience measured in terms of diverse backgrounds (mainly in other firms and industries) and directorships in other unconnected companies (Westphal and Milton, 2000), hoping that it should improve board monitoring and decision making.

For the board to be able to monitor the management, especially on matters of disclosures, the board of directors must have financial and accounting expertise in order to understand disclosures and encourage managers to disclose more information. According to Raber (2003) effective boards are to have financial and accounting literacy. Moreover, Adams et al. (2009) stated that financial experience in the board can affect the board policy regarding the firms' disclosures.

Agency theory expects that better and more diverse education on the board will enhance board monitoring ability (Cabedo and Tirado, 2004), hence ensure stakeholders interests. Agrawal and Chadha (2005) and Dhaliwal, et al. (2010) argued that members with financial experience can enhance monitoring activities over financial disclosures. Resource dependency theory suggests that skilled and experienced directors can be considered as a link to external resources (Ingleby & van der Walt, 2001).

On the other hand, the existence of experienced outside directors is seen as a substitute tool to voluntary disclosures in monitoring managements (Gul and Leung, 2004; Eng and Mak, 2003).

Empirically, There is no evidence on the effect of the board's experience on the level of risk disclosures in the literature (Martikainen et al., 2015), and evidence on the effect of the board's educational background and experience on the level of performance is limited (Darmadi, 2012; Gantenbein and Volonté, 2011). Yermack et al. (2006) reported that share prices are sensitive to the qualifications of the board of directors.

Existence of financial expertise on the board was found to be negatively related to the likelihood of accounting restatements (Agrawal and Chadha, 2005), and positively associated with the level of disclosures (Mangena & Tauringana, 2007; Mangena & Pike, 2005).

Qualification will be measured by two variables; higher education and financial experience. Board education is one of the criteria used by the international shareholder services (2006) to evaluate

firms' adherence to corporate governance. Cheng et al. (2010) report a positive association between university education and performance. Haniffa and Cook (2002) found that business and accounting education of members of the board is positively related to the level of disclosures.

Kesner (1988) argues that excluding occupational experience when examining board matters can be problematic, because directors' experience can influence their decisions. According to the SEC requirements, an audit committee should have at least one financial expert who has the ability to understand financial statements and accounting matters (SEC, 2003). Defond et al. (2005) reported that the market value is positively affected by the appointment of a financial expert in the audit committee, and that they have the ability to enhance the firm's corporate governance.

Since the sample under study is from the banking industry, the complex and risky nature of banking operations requires the directors to be knowledgeable in finance and accounting. Hence, the hypothesis is as follows:

**H.4. There is a positive association between board qualification and the level of risk disclosures in the annual reports of Jordanian Banks.**

Table 4.5: Qualification and disclosures

Source	Prediction
Agency theory	
Resource dependency theory	Positive
Mangena & Tauringana 2007; Mangena & Pike 2005	
Martikainen, 2015	Not-significant

#### 4.3.1.5. Frequency of meetings

Effective monitoring and appropriate policy for disclosures requires frequent meetings and sufficient time in order to discuss and decide on important issues. More meetings every year facilitate monitoring functions (Lipton and Lorsch, 1992; Vafeas, 1999). Moreover, more meetings might be an indicator that the Board devotes more time to monitor management and develop strategies (Reyes-Recio, 2000).

Jensen (1993) suggests that more meetings might not be needed to enhance performance, since board meetings may not always be productive, and that more meetings may result in more expenses (Fama and Jensen, 1983). Conger et al. (1988) suggested that frequent meetings might enhance the effectiveness of the board of directors if meetings are well organised.

Empirically, a positive correlation the number of board of directors meetings and the level of disclosure was found by several researchers (e.g. Banghoj and Plenborg, 2008; Allegrini and Greco, 2013; Barros et al., 2013). Meanwhile, Frias-Aceituno et al. (2013) did not find a significant impact on the level of disclosure and Rodríguez Domínguez et al. (2011) reported a negative, yet insignificant, association.

Beasley et al. (2000) found that the lower the frequency of the board meetings, the higher the likelihood of financial statement fraud. And Carcello et al. (2002) reported a positive association between meeting frequency and external audit fees, which indicates that management is more concerned about the quality of financial reporting.

Agency Theory supposes that board activity has a positive effect on the divulgation of information, according to Brick and Chidambaran (2010), frequent meetings ensure that management is sharing information with the board of directors, and that more frequent meetings put pressure on management to prepare and disclose more information to the board. Hence, more meetings reduce agency problems (Schwartz-Ziv and Weisbach 2013), and reduce information asymmetry between managers and directors.

Based on the previous discussion, the following hypothesis is formulated.

**H5: There is a positive relationship between meeting frequency and the level of risk disclosures in the annual reports of Jordanian Banks.**

Table 4.6: Meeting frequency and disclosures

Source	Prediction
Agency theory	Positive
Banghoj and Plenborg, 2008; Allegrini and Greco, 2013; Barros et al., 2013	
Frias-Aceituno et al., 2013; Rodríguez Domínguez et al. 2011	Insignificant

#### 4.3.1.6 Number of directorships

Two contradicting views can be found in the literature regarding the number of directorships held by directors. The two views are referred to as the quality hypothesis and the busyness hypothesis (Abdul Latif et al., 2013). On one hand, directors with multiple directorships are expected to be more experienced in monitoring management and in conducting their duties as directors (Kosnik,

1987; Fama and Jensen, 1983). Multiple directorships from the point view of the quality hypothesis is an indicator of a higher quality, as directors are expected to have more connections and experiences to bring to the firm (Abdul Latif et al., 2013).

On the other hand, and from the point view of the busyness hypothesis, directors with several directorships are busy and have less time to allocate for each board, hence, less effectiveness (Ahn et al., 2010; Jiraporn et al., 2009) and less likelihood to participate in board committees (Ferris et al. 2003) is expected.

Theoretically, agency theory expects that (Eisenhardt, 1989; Fama and Jensen, 1989), when used in excess, multiple directorships is likely to leave directors with many tasks and duties that they cannot fulfil and resulting with their monitoring ability and managerial attention compromised (Fich and Shivdasani, 2006) and increases agency costs (Shivdasani and Yermack, 1999). From a resource dependency perspective members with multiple directorships have more networks, hence they can provide the firms with needed resources (Pfeffer, 1972).

Empirical results suggest that boards with more directors of multiple directorships are less effective in monitoring (Core et al., 1999; Fich and Shivdasani, 2006), more likely to commit accounting fraud (Beasley, 1996) and less capable of reducing information asymmetry problems (Armstrong et al., 2010). Multiple directorships is found to be negatively associated with disclosures (Laksmana, 2008; Othman et al., 2014; Core et al., 1999; and Liu and Sun, 2010) and with the quality of financial reporting (Fich and Shivdasani, 2006), while Rupley (2012) reported a positive association with the level of environmental disclosures.

According to Sarkar and Sarkar (2009), directorship limits in emerging countries are higher than those in developed countries. Directors who serve in multiple boards will have more responsibilities and less time compared to directors who serve in one board, although the former will have more experience. They will have less time to meet with managers, discuss the firms' matters in detail and contribute to the firm with their experiences and views. The following is therefore expected:

**H.6: There is a negative association between the number of directorships held by directors and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.7: Multiple directorship and disclosures

Source	Prediction
Agency theory (Laksmana, 2008; Othman et al., 2014; Fich and Shivdasani, 2006; Core et al. 1999; and Liu and Sun 2010; Gul and Leung, 2004)	Negative
Resource dependency theory	Positive
Rupley (2012)	

#### 4.3.2 Risk Committee

Traditionally, risk management is of the responsibility of the audit committee (Krishnan and Visvanathan, 2009), because audit committee members are supposed to have the necessary financial experience. However, given the increasing risks and complexities faced by firms, a committee that focuses on risks and risk management is needed (Brown et al., 2009; Ruigrok et al., 2006). It is expected that firms with a standalone risk committee will have the opportunity to focus only on risk issues, thus, the monitoring risk management systems is expected to be enhanced.

Risk committees are more common in banks and financial firms (Andres and Valleledo, 2008). According to Barakat and Hussainey (2013), financial firms establish risk committees in order to provide better risk information and interact with stakeholders. The financial stability board FSB (2013) recommends financial firms to standalone risk committees to review and discuss risk policies of the firm.

Recently, there is a growing interest to establish a committee that is specialized in risk and risk practises (Subramaniam et al., 2009). However, the empirical evidence on the characteristics of a risk committee is limited (*ibid*).

##### 4.3.2.1 Size of risk committee

There is not a lot of evidence in the literature about the size of the risk committee, and the studies that have addressed the risk committee focus merely on the existence or absence of a risk committee (Sekome and Lemma, 2014; Subramaniam et al., 2009; Dobler, 2008). However, given that risk management is 'a complex process' that involves the identification, assessment and mitigations of risks (Subramaniam et al. 2009 p.322), it is expected that risk committees should include a sufficient number of members to be able to handle all tasks and responsibilities assigned to

them. This sufficient number has not been determined by regulations, and neither in the literature, i.e. the Corporate Governance Code for Banks in Jordan has not suggested the number of members that should belong to a risk committee.

From an agency theory perspective, large committees can incur higher costs such as poor communication, coordination and control (Jensen, 1993). However, resource dependency theory looks at larger boards as a source of 'necessary strength, diversity of expertise and views to ensure appropriate monitoring' which leads to better disclosures (Bedard et al., 2004 p.18).

Empirically, there is a confusion regarding the size of board committees, and whether large or small committees are better in monitoring (Tao et al., 2013). However, the more tasks and functions that are assigned to the committee, the more resources and time is needed. Thus an adequate number of directors is also needed. In Jordan the Corporate Governance Code did not specify the size of the risk committee (Central Bank of Jordan, 2007).

There is limited evidence on the effect of the size of risk committee on disclosures as well. However, Tao et al. (2013) reported that the size of the committees is not associated with the firm's performance. And Mak and Kusnadi (2005) reported a negative association. Alhadi et al. (2016) reported a positive association between the size of a risk committee and the level of market risk disclosures.

Due to the scant results about the effect of the risk committee size in the literature, a non-directional relation is expected:

**H.7. There is an association between the size of risk committee and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.8: Committee size and disclosures

Source	Prediction
Agency theory	Negative
Mak and Kusnadi (2005)	
Resource dependency theory	Positive
Alhadi et al. (2016)	

#### 4.3.2.2 Expertise of the risk committee

Risk committee members who are knowledgeable about risk and risk management, and the risks that the bank may be exposed to, are expected to be advantageous for the process of risk assessment and management. The Corporate Governance code for banks in Jordan does not specify the qualifications of risk committee members as it does for audit committee members (Central Bank of Jordan, 2007). However, experienced members in the board will perform their expected responsibilities including setting the bank's risk appetite, monitoring management's implementation of the risk management policies, and advising the board regarding banks' risks, such as; credit, market and operational risks.

According to Raber (2003), risk committee members' experience is required to enhance the monitoring function. Which is consistent with Agrawal and Chadha (2005) and Dhaliwal, Naiker, and Navissi (2010). In general, boards with qualified members will enhance the board function of monitoring (Cabedo & Tirado, 2004). Moreover, Lee & Stone (1997), argued that members of the board committee should be qualified and experienced.

Resource dependence theory expects that qualified members are able to provide the firm with more experiences and skills (Pfeffer & Salancik, 1978). In addition, agency theory suggests that qualified members can enhance monitoring ability of the board (Cabedo & Tirado, 2004). DeZoort and Salterio (2001) reported that a financially experienced board member is more likely to make expert judgments.

Al Hadi et al. (2016) found that qualifications of the risk committee are positively associated with market risk disclosures. A member of the risk committee who is financially literate or is experienced in risk and risk management is expected to perform their controlling roles over risk management processes more effectively, and according to Alhadi et al. (2016 p.149), are expected to 'observe the shortages of such disclosures and take prudent decisions'.

Hence, the hypothesis is as follows:

**H.8. There is a positive association between the financial experiences of the members of a risk committee and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.9: Risk committee experience and disclosures

Source	Prediction
Agency theory	
Resource dependency theory	
Alhadi et al. 2016	Positive

#### 4.3.2.3 Independence of risk committee

When it comes to the independence of the members, two arguments can be found. First, independent members are expected to monitor the board more effectively (Rosenstein and Wyatt, 1990; Krishnan, 2005) and are more conscious to investors' demands for disclosure (Chen and Jaggi, 2000). On the other hand, independent members are seen to be less familiar with the firm's institutional context than an executive member (Raheja, 2005).

Theoretically, independent directors are viewed as effective monitors by agency theory (Walsh and Seward, 1990), source of experiences and contacts by resource dependency theory (Hillman et al., 2000), and as a signal of outside stakeholders representation by legitimacy theory (Freeman & Reed, 1983). However, Empirical evidence is mixed regarding the effect of the independence of board committees and disclosures (Ben Amer and Zeghal, 2011). For example, Ho and Wang (2001), Patelli and Prencipe (2007) and Akhtaruddin and Haron (2010) reported a positive association between committee independence and voluntary disclosures, Cerbioni and Parbonetti (2007) found that committee independence is negatively related to the level of intellectual capital disclosures. Whereas, Al Hadi et al. (2015) reported an insignificant association between risk committee independence and market risk disclosures.

The Corporate Governance Code for banks in Jordan requires the inclusion of both executive and non-executive members and does not require the inclusion of independent members (Central Bank of Jordan, 2007).

Based on the previous discussion, it is expected that:

**H.9. There is a positive association between the independence of the risk committee and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.10: Risk committee independence and disclosures

Source	Prediction
Agency theory	Positive
Resource dependency theory	
Legitimacy theory	
Ho and Wang (2001), Akhtaruddin and Haron (2010), Patelli and Prencipe (2007)	
Cerbioni and Parbonetti (2007)	Negative

#### 4.3.3 Audit Committee

Risk management and the effectiveness of internal controls are the core responsibilities of the audit committee (Beasley et al., 2009). In addition, the audit committee is considered to be a vital factor to the quality of financial reporting for firms in general (Anderson et al., 2003) and for banks in particular (BCBS, 2015).

Anderson (n.d.) concludes that audit committee responsibilities include discussing company's major financial risk exposures and management policies put to control such exposures. The audit committee, as stated above, must discuss guidelines and policies to govern the process by which risk assessment and risk management is undertaken.

According to Li et al. (2008), the audit committee has the ability to influence the information disclosed by the firm. Ho and Wong (2001), Barako et al. (2006) and Samaha et al. (2015) found that the existence of the audit committee positively affects the level of disclosures. Voluntary disclosures to the audit committee are a monitoring device to oversee decisions and management performance (Allegrini & Greco, 2013).

Most of the literature examined merely the effect of the presence of the audit committee on disclosures, but less research discussed the effect of specific characteristic of the audit committee that determines its effectiveness. Akhtaruddin and Haron (2010), Bedard & Gendron (2010) and Li et al. (2012), indicated that the effectiveness of an audit committee depends on the committee's characteristics.

#### 4.3.3.1 Size of audit committee

The role of the audit committee is assessing the board of directors in overseeing the firm's reporting policy (Pincus et al., 1989), and acting as a control mechanism over executive management to align the management's and the shareholders' interests (Laksmana, 2008).

Because of the complex functions that rest on the shoulders of the audit committee and their responsibility regarding their firm's integrity, and the effectiveness of internal controls; a great deal of resources and time is to be allocated to the committee. This requires an adequate number of directors to be serving as audit committee members, and the UK Corporate Governance Code requires an audit committee of at least three members (except for companies below the FTSE 350 index) ( Financial Reporting Council, 2012). In Jordan, banks are required by the banking law to have an audit committee with three non-executive directors (Central Bank of Jordan, 2007).

According to Klein (2002), the size of the audit committee is integral to the quality of financial reporting. The more members on the committee the more they are able to influence the management, regarding the level and content of disclosures (Li et al., 2008), and act in the interest of shareholders (Melis, 2004). However, a large audit committee might have problems with coordination and with the decision making process, in addition to the existence of free riders (Karamanou and Vafeas, 2005). Moreover, large audit committee is more likely to have unnecessary debate, as well as poorer communication (Lin, Xiao and Tang, 2008).

Theoretically, Resource dependency theory argues that larger committees are more likely to provide resources and experiences to the firm (Allegrini & Greco, 2011). While agency theory (Jensen, 1993) argues that large number of members can be ineffective and it is more likely for them to be controlled by the CEO.

Empirically, Felo et al. (2003) found that the size of the audit committee is positively associated to the quality of disclosures. In contrast, Hidalgo et al. (2011), and Mangena and Pike (2005) found that the size of audit committee is not significant in determining the level of disclosures. While Aktaruddin et al. (2009) found that the ratio of audit committee members to the number of board of directors is negatively associated with the level of voluntary disclosures.

Due to the mixed results about the effect of the audit committee size in the literature a non-directional relation is expected:

**H.10. There is an association between the size of audit committee and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.11: Audit committee size and disclosures

Source	Prediction
Resource dependency theory	Positive
Felo et al. (2003)	
Agency theory	Negative
Aktaruddin et al. (2009)	

#### 4.3.3.2 Expertise of audit committee members

Essentially, for the audit committee to effectively monitor financial reporting practices and discuss financial and accounting matters with management, members of the committee are supposed to have adequate knowledge in accounting and finance, in order to be able to understand financial statements (Dhaliwal et al., 2010), and to be able to demand and argue with management and external auditors for a higher quality of financial reporting (Bedard and Gendron, 2010). Persons (2009) argued that independent members of a committee with experience in accounting and auditing are more likely to detect problems, motivated by the eagerness to maintain a good reputation.

A stream of research examined the experience of the audit committee members and the quality of the external auditor. The stream reported that audit committees with more financial experience have chosen one of the big 4 as their external auditor (Chen and Zhou, 2007), have worked more with the external auditor (Lee et al., 2004), and have paid more audit fees (Gul and Goodwin, 2010); indicating that committees with more financial experience tend to require a greater quality of financial reporting.

Experience of audit committee is viewed favourably by resource-dependence theory (Pfeffer & Salancik, 1978); as it suggests that qualified members are able to connect a firm to external environment and obtain more needed. It is also argued, by agency theory, that qualified members can improve managerial monitoring (Cabedo & Tirado, 2004).

A large number of studies regarding the research of the determinants of disclosures reported a positive relation between the accounting and financial experiences in the audit committee and the level of disclosures (DeFond et al., 2005; Bedard et al., 2004; Hoitash and Hoitash, 2009; Karamanou

and Vafeas, 2005; Dhaliwal et al., 2010; Akhtaruddin and Haron, 2010). On the contrary, Kent and Stewart (2008) reported a negative association when they examined the financial disclosures of Australian firms during their transition to the IFRS.

McDaniel et al. (2002) found that having financial experts on the audit committee enhances consistency and adds structure to the financial reporting quality discussions.

Experience on the audit committee is associated with better quality of financial statements (Braswell et al., 2012), timeliness (Krishnan, 2005; Krishnan and Visvanathan, 2008) and with less misreporting (Raghunandan and Rama, 2007).

In accordance with the majority of the literature:

**H.11. There is a positive association between the financial experiences of the members of the audit committee and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.12: Audit committee experience and disclosures

Source	Prediction
Resource dependency theory Agency theory	Positive
DeFond et al., 2005; Bedard et al., 2004; Hoitash and Hoitash, 2009; Karamanou and Vafeas 2005; Dhaliwal et al., 2010; Akhtaruddin and Haron, 2010	
Kent and Stewart (2008)	Negative

#### 4.3.3.3 Independence of audit committee

Independence of the audit committee enhances the effectiveness of monitoring over financial reporting (Beasley, 1996; Krishnan, 2005). The audit committee is expected to work as a mediator between management and external auditors when they have diverging views about financial statements (Klein, 2002), and therefore the independence of the audit committee is important to ensure members of the board provide objective and unbiased views on the financial statements.

However, Aldamen et al. (2012) argue that the effect of audit committee independence on financial reporting might be influenced by other governance mechanisms, for example, the existence of block holders. This means that the positive results expected from increasing independence may be contextual and affected by each firm's settings. Thus, it is interesting to examine the effects of audit

committee independence in a country like Jordan with a different culture and different institutional settings.

Bronson (2009) suggested that the audit committee should be completely independent for the benefits of independence to be achieved. Moreover, regulations like The Blue Ribbon Committee and the UK Code of Corporate Governance require a fully independent audit committee. This indicates that the more independent committees are the better, and therefore this variable is measured as the percentage of independent members on the audit committee (Klein, 2002; Krishnan, 2005; Kang et al., 2011; Stewart, 2015).

The independence of the members of the audit committee is important in determining the level of disclosures (Kelton and Yang, 2008), owing to the notion that independent directors are less likely to be affected by management (Mangena and Pike, 2005) and that they have a greater ability to restrict management from hiding information from stakeholders (Allegrini and Greco, 2011), because they do not have economic or personal interests within management (Bedard and Gendorn, 2010). Therefore, they can attribute to the quality of financial reporting and reduce information asymmetry (Allegrini and Greco, 2011).

Agency theory expects that independent directors can make impartial decisions, and have better monitoring behaviour of managers (Rosenstein & Wyatt, 1990). Since independent members are not expected to have economic or personal relationship with management (Bedard & Gendron, 2010). Hence, independent audit committee will more likely reduce the chance of management withholding information (Allegrini & Greco, 2011). Therefore, independent committee positive influence to provide accurate and additional information is expected (Haniffa and Cooke, 2002

Empirically, Mangena & Tauringana (2007), Akhtaruddin and Haron (2010), and Patelli and Prencipe (2007) reported a positive impact on the level of disclosures, but Agrawal & Chadha (2005) did not find a significant relation. Independence of the committee was found negatively related to the level of financial misstatements (Abbott et al., 2002), positively related to audit fees as a variable for audit quality (Carcello et al., 2002) and negatively related to earning management (Bedard et al., 2004).

Based on theory expectation and the large part of disclosure literature it is expected that:

**H.12. There is a positive association between the independence of the audit committee and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.13: Audit committee independence and disclosures

Source	Prediction
Agency theory	Positive
Mangena & Tauringana (2007), Akhtaruddin and Haron (2010), and Patelli and Prencipe (2007)	
Agrawal & Chadha (2005)	Insignificant

#### 4.3.4 Ownership structure

Ownership structure is deemed to affect the level of disclosure by many researchers in the literature (Liu and Anbumozhi, 2009; Cormier and Gordon, 2011). Abraham and Cox (2007) reported that ownership structure is a determinant of the quantity of risk disclosures. McKinnon and Dalimunthe (1993) found that ownership structure has a significant effect on the comprehensiveness of disclosures. Barako et al. (2006) examined the relationship between ownership structure and voluntary disclosures in Kenya, and the authors reported that institutional and foreign ownership have a positive effect on the levels of disclosures. Chau and Gray (2002) examined the same relationship in Hong Kong and Singapore, but they reported that managerial ownership negatively affects the level of voluntary disclosures.

##### 4.3.4.1 Managerial ownership

Managerial ownership is deemed to be a governance mechanism that control agency problems; firms with a high percentage of managerial ownership tend to have lower agency problems than firms with higher outside ownership. This is because in the former case the separation between management and ownership is lower, and the investors' need for information is lower also, thus the former type of firms tend to disclose less information compared to the latter type (Gelb, 2000). The lower the separation between managers and owners, the less pressure from other stakeholders regarding firms' financial reports (Jensen, 1986).

Increased managerial ownership might increase the alignment between managers and owners of the firm or it might increase the managers' entrenchment. In the latter case, greater entrenchment will result in a lower quality of disclosures (Khan et al., 2013), because managers may try to disclose less information in order to exploit the resources under their control for their personal interests, without the interference from other stakeholders. Literature is inconclusive in proving which of the views is

more likely to be true (Han et al., 2013), and also gives mixed evidence regarding the effect of managerial ownership on a firm's performance (Hoang, 2016; Orazalin, 2015) in general. Hence, whether high managerial ownership results in better alignment between managers and owners of the firm or in higher the managers' entrenchment it is expected to have negative influence on disclosures.

In the Jordanian context, Marashdeh (2014) reported that managerial ownership in Jordanian non-financial firms has an average of 32%. According to the ROSC (2004), managers and boards are controlled by the family owning the business, and family firms are largely observed in Jordan. Moreover, management is frequently appointed based on kinship or friendship (Alwshah, 2009). Based on this evidence, it is expected that management will have little impact on corporate governance either due to lack of qualifications or because of limited independence.

However, Kazemiana and Sanusi (2015) found that managerial ownership is an effective monitoring device which can substitute weak corporate governance in Jordanian firms. Taken into consideration that the effect is emphasized more in small firms than large firms and that this latter study is fairly recent, it is interesting to see how managerial ownership and culture in Jordan interact with each other and if the observations of ROSC (2004) have changed.

Empirically and based on a sample of 158 Singapore listed firms, Eng and Mak (2003) concluded that higher managerial ownership leads to lower levels of disclosure. This is consistent with Morck et al. (1988) and Samaha and Dahawy (2010). Managerial ownership was found to be negatively associated with the level of management earnings forecast (Nagar et al., 2003; Ruland et al., 1990; Jensen and Meckling, 1976). Meanwhile Kelton & Yang (2008) reported an insignificant relationship between disclosures and managerial ownership.

Agency theory views managerial ownership as a vehicle to align the interests of owners with those of the managers (Ghazali and Weetman, 2006) and the smaller the managerial ownership the greater the need for monitoring activities (Jensen and Meckling, 1976). Hence, low managerial ownership leads to the need for more monitoring activities such as the disclosure of risk information. Therefore, based on agency theory, the discussion above and the majority of the literature it is expected that:

**H.13: There is a negative association between managerial ownership and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.14: Managerial ownership and disclosures

Source	Prediction
Agency theory	Negative
Eng and Mak (2003); Morck et al. (1988); Samaha and Dahawy (2010).	
Kelton & Yang (2008)	Insignificant

#### 4.3.4.2. Block-holder ownership

Firms with a higher percentage of block-holders, according to the agency theory, have less information asymmetry and less agency problems (Jensen & Meckling, 1976), and the pressure from outside owners is lower in their case (Khan et al., 2013), hence less disclosures are needed. On the other hand, large block-holders may have the ability to obtain the information needed in private ways since they have more incentives and are able to influence the management (Noe, 2002), thus reducing the need for disclosing information.

Ntim et al. (2013) suggest that firms with diffused ownership have higher information asymmetry which might affect a firm's valuation, and that disclosures are an opportunity to avoid such a problem. Alhazaimeh et al. (2014), in their longitudinal study on the effects of corporate governance and ownership structure on voluntary disclosure levels in Jordanian firms, reported that foreign ownership and block holder ownership significantly affect the level of voluntary disclosures.

In developing countries, shares are usually concentrated in the hands of a few individuals, institutions, or even the government (Omran et al., 2008). Omran et al. (2008) found that among the 29 financial institutions they surveyed in Jordan, only five of them were without ownership concentration, given that they defined a block holder as an entity that owns at least 10% of the firm's shares.

Empirically, the level of disclosures was found to be negatively associated with ownership concentration (Khan et al., 2013; Lakhal, 2007; Barako et al., 2006). Lopes and Rodrigues (2007) and Oliveira et al. (2011) reported a negative effect between block-holder ownership and the level of risk disclosure, while Xiao and Yaun (2007) and Lim et al. (2007) reported a positive relationship between the shares owned by block-holders and the level of voluntary disclosures.

In Line with the literature and agency theory:

**H.14. There is a negative association between the level of risk disclosures and the percentage of block holder ownership in Jordanian banks.**

Table 4.15: Block-holder ownership and disclosures

Source	Prediction
Agency theory	
Khan et al. 2013; Lakhel 2007; Barako et al. 2006; Lopes and Rodrigues, 2007 and Oliveira et al. 2011	Negative
Yau (2007) and Lim et al. (2007)	Positive

#### 4.3.4.3. Family ownership

In Jordan, family ownership is common (Alwshah, 2009). Moreover, the report (2011 p.42) states that 'small domestic banks are primarily owned by families'. According to Becker and El-Said (2013), up to 50% of Jordanian banks are owned by families. They add that recruitment and promotion can be based on personal relations and that conflicts between family members in the bank might affect performance. A study by Al-Akra and Hutchinson (2013) reports that family firms in Jordan provide less voluntary disclosures.

Theoretically, it is expected that family ownership reduces agency costs (Xiang et al., 2014; Chua et al., 2003), lowers monitoring costs (Daily and Dollingen, 1992); family owners have access to inside firm information, therefore they can directly monitor the management through private channels without the need for public information (Chau and Gray, 2010). This reduces agency problems between managers and shareholders, however, agency problems between owners and other shareholders, this type of problems occur mostly in family firms. Owner-managers tend to control the minority shareholders; (Morck and Yeung, 2003; Shleifer and Vishny, 1997; Morck and Yeung, 2003). Hence, family owners have a greater opportunity to maximise their own benefits at the expense of other minority owners, which may lead them to withhold unfavourable information (Zulkarnain, 2007).

Moreover, family ownership leads to stronger and longer relations with external stakeholders (Lyman, 1991). Hence, such strong and long relations with external stakeholders such as creditors can decrease information asymmetry and in turn less inclined to disclose information voluntary.

According to proprietary cost theory, family firms have an incentive not to disclose information that might affect their competitive position (Ali, 2008). Hence trying to protect their reputation and avoid social scrutiny, such firms have an incentive to avoid disclosures (Fan and Wong, 2002).

Prior literature reported that family owned firms disclose less information than non-family owned firms (Ashiq et al., 2007; Ho and Wong, 2001; Haniffa and Cooke, 2002; Chen et al., 2008). Chau and Gray (2002) found a negative relationship between family ownership and the level of voluntary disclosures. Some authors report that family ownership results in higher disclosures (Wang, 2006; Ali et al., 2007), due to the entrenchment effect.

Therefore, the study hypothesizes that family ownership have less incentive to disclose higher level of risk disclosures based on theories expectations and prior literature results.

**H.15. There is a negative association between family ownership and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.16: Family ownership and disclosures

Source	Prediction
Agency theory	
Proprietary cost theory	
Ashiq et al. 2007; Ho and Wong 2001; Haniffa and Cooke 2002; Chen et al. 2008; Chau and Gray, 2002	Negative
Wang 2006; Ali et al. 2007	Positive

**4.3.4.4 Foreign ownership:**

Jordan has engaged in a liberalisation process for the purposes of creating a modern regulatory environment for investment, and to increase the openness of the Jordanian economy for foreign investment (Taleb, 2011). According to the OECD (2006), the percentage of non-Jordanian investments in the capital market is 45% and is one the highest in the world. In the banking sector, non-Jordanian investment was 54.5%. Moreover, the percentage of shares held by foreigners (non-Jordanians) increased from 38.6% in 2003 to 46.7% in 2010 in the Jordanian banks (the Report, 2011).

Theoretically, from legitimacy theory perspective, disclosures may be employed as legitimating vehicle to obtain capital and attract foreign owners who are expected to have different values and

knowledge (Khan et al., 2012), especially if they come from more developed countries. Hence, more disclosures can make an impression of transparency.

Based on agency theory, foreign owners are usually a minority (La Porta et al., 1999) and they are usually geographically distanced (Bradbury, 1991), hence, monitoring costs for foreign owners are expected to be high. Moreover, it is difficult for these owners to obtain information from alternative sources. Hence, disclosure of reliable information is a way for foreign investors to monitor the actions of management (Haniffa and Cooke, 2002) and to ensure that their capital is not expropriated by managers (Bushman and Smith, 2003).

It is common in the literature that foreign ownership is positively related to the performance of the firm (Seifert et al., 2005; Hanousek et al., 2004; Mitton, 2002; Ghazali, 2010; Taylor, 1990), because foreign owners are expected to enhance monitoring functions (Khanna and Palepu, 1999; Young et al., 2008). A high percentage of foreign ownership increases the demand for disclosures in general (Mousa and Elamir, 2014), and risk disclosures in particular (Mohobbot, 2005)

Empirically, studies found a positive and significant relationship between foreign ownership and corporate disclosure (Haniffa and Cooke, 2002; Barako et al., 2006; Mangena and Tauringana, 2007), however, Koshini and Ali (2007) found an insignificant relationship between risk disclosure and foreign ownership.

Based on the previous discussion:

**H.16. There is a positive association between foreign ownership and the level of risk disclosures in the annual reports of Jordanian banks.**

Table 4.17: Foreign ownership and disclosures

Source	Prediction
Agency theory Legitimacy theory	Positive
Seifert et al. 2005; Hanousek et al. 2004; Mitton 2002; Ghazali 2010; Taylor 1990; Haniffa and Cooke 2002; Barako et al. 2006; Mangena and Tauringana 2007.	
Koshini and Ali (2007)	Insignificant

#### 4.4 Conclusion

This chapter provided a literature review on corporate governance and risk disclosures based on prior empirical studies. Research on risk disclosures is still limited and mostly focused on developed countries.

Following financial crises, greater attention is being drawn to risk management and risk disclosures, intertwined with reforms on corporate governance. Literature provides two general determinants of risk disclosures; firm characteristics and corporate governance. While research on the effect of firm characteristics is widely available in the literature, research on the corporate governance has been receiving a growing interest. Empirical research presents mixed results on the determinants of risk disclosure and on the usefulness of the current risk disclosures. The literature shows that there is limited research on the determinants of risk disclosure in the Middle East in general and in Jordan in particular.

## Chapter 5 : Research design and methodology

### 5.1 Introduction:

A research methodology is described as the 'overall approach to the research process, from the theoretical underpinning to the collection and analysis of the data' (Collis and Hussey, 2003 p.55). A methodology is more than just a collection of methods, Somekh and Lewin (2005 p.346) define a methodology as 'the collection of methods or rules ... and principles, theories and values that underpin a particular approach to research'.

The objective of this chapter is to discuss the design of the current research and to discuss the methods used to answer research questions. Three main issues are discussed; philosophical assumptions, mixed method design and the specific quantitative and qualitative methods applied in the current research.

### 5.2 Research Philosophy

A research philosophy is a belief about the way in which data should be collected, analysed and utilised (Galliers, 1991). Determining the philosophy of research will help the researcher in:

- (i) Determining the research method, including the type of data to be gathered and methods of analysis
- (ii) Comparing different methods and their limitations, and avoiding the use of impertinent methods
- (iii) Determining (or creating) methods that were previously out of the researcher experience (Easterby-Smith et al.1991).

Raadschelders (2011, p.917) explains the importance of research philosophy by arguing that 'public administration scholars have been putting the cart (methodology and methods) before the horse (epistemology and ontology)'.

Walter (2006 p.35) argues that the methodology is influenced by the 'paradigm in which our theoretical perspective is placed or developed'. Therefore, a methodology applied in research is influenced by the way the researcher's views of the world and knowledge, the researchers' values and the research questions. Hence, researchers have to be clear about what paradigm guides their research before embarking on it (Gupta and Lincoln, 1994).

There is no best research philosophy to undertake in business research (Saunders et al., 2016), as different researchers provided different definitions and categorisation of the epistemological and ontological perspectives of philosophy. Saunders et al. (2016 p.124) define research philosophy as 'a

system of beliefs and assumptions about the development of knowledge'. According to the authors, assumptions which are made during the research process contribute to the construction of a research philosophy. These include assumptions about knowledge and reality, as well as the researcher's own values, and epistemological, ontological and axiological assumptions.

The following section will provide a discussion of philosophical assumptions of the ontological and epistemological stances before proceeding into the design of the research methodology.

### 5.2.1 Ontology

Ontology is concerned with the nature of reality (Creswell, 1994; Guba and Lincoln, 1989). Ontology deals with the 'kind of world we are investigating, with the nature of existence and with the structure of reality as such' (Crotty 2003, p.10). David and Sutton (2004) argue that determining the ontological stance is important, because it helps researchers link their views about human nature with the approach they will adopt to conduct the research.

For social reality, a researcher may adopt different ontological stances. A researcher may be an objectivist, where he or she believes that reality is independent of humans' recognition of it, a reality that is objective, hard and outside of our experiences. According to Morgan and Smircich (1980), this reality can be accurately measured, because objectivists believe that human behaviour can be explained through causality laws (Easterby-Smith et al., 1991), or as Remenyi et al. (1998 p.32) states, 'there are independent causes that lead to the observed effects'.

Alternatively, a researcher may be a subjectivist and have the belief that in a world where human beings have their own perceptions and interpretations of events, reality is subjective and socially constructed. Accordingly, there is no one true reality to be approached; rather reality is inside our socially based constructions. Hence, subjectivists do not try to measure reality; rather, they try to understand a phenomenon in a specific context. Their reasoning for this is that 'phenomena are engaged in a process of continuous creation' (Hirschman 1986 p.238).

The two extreme stances of ontology are objectivism and subjectivism, and different philosophies exist along the objectivism - subjectivism continuum. These include structural realism, critical realism, transcendental realism and nominalism. Morgan and Smircich (1980) argue that there are several positions a researcher may adopt along the continuum.

As for the current study, critical realism is adopted. Critical realists believe that there is one reality with different interpretations. They believe in one independent reality, however, this reality is stratified, and consists of objects (mechanisms) and actual events and experiences. Whilst these

objects and mechanisms exist independently, the events and experiences that are generated by these mechanisms are influenced by diverse events caused by other mechanisms, hence, they are interpreted differently depending on the interactions between different events and experiences (Modell, 2007). There will be further discussion for the appropriateness of critical realism later in the chapter.

### 5.2.2 Epistemology

Epistemology is concerned with the nature of knowledge (Cohen et al., 2007). Guba and Lincoln (1994, p.108) discuss that epistemology evolves around the question 'what is the nature of the relationship between the knower or would-be knower and what can be known'. Epistemology deals with how to produce and develop knowledge (Eriksson and Kovalainen, 2008), and what is considered viable knowledge (Collis and Hussey, 2003). The two extreme epistemological stances are positivism and interpretivism (Bryman, 2004).

Positivist researchers have to be detached from the research; a researcher should have an independent and objective position during research (Collis and Hussey, 2003). In other words, the researcher has to make observations of reality without any bias, and without being influenced by the research. Positivism was developed in natural sciences and regards knowledge in the social science as being observable, measurable and generalizable (Saunders et al., 2007). Positivists try to examine relations between elements in reality (Morgan and Smircich, 1980), and can be achieved by collecting facts and measuring these elements.

On the other hand, interpretivist researchers claim that researchers cannot be independent from their topic of research. Moreover, knowledge is being developed by the interactions between the researchers and the research. Hence, researchers are not required to measure knowledge, rather to examine the subjective meaning of a phenomenon (Bryman, 2004).

The researcher's beliefs take a middle position between the previously mentioned stances, where she believes that relations between different elements of social reality can be examined and measured. However, it is indispensable to explore other people's experiences in the specific context of the research.

### 5.2.3 Axiology

Axiology is concerned with the researcher's value in the process of research. It aims to understand how much the research is laden with the researcher's beliefs (Erford, 2014). Positivists believe that the research is value free and that the researcher's values and feelings should be detached from the

research (Ponterotto, 2005). A systematic method of research is believed to eliminate the researcher's biases (Davis, 2015). While interpretivists believe that it is not possible for the researcher to keep his or her own values and experiences away from the research, they understand that these views should be discussed in the research. (ibid)

The researcher believes that research is value laden and that the researcher's own values, experiences, and culture can affect the results of the research.

#### **5.2.4 Methodology**

A methodology discusses how the main questions of the research will be answered, i.e. the methods the researcher will adopt to conduct the research. A methodology is influenced by the philosophical stance of the researcher; researchers with an objectivist ontology and positivist epistemology will adopt a quantitative methodology, whilst researchers with subjectivist ontology and an interpretivist epistemology will adopt a qualitative methodology.

The debate of whether quantitative or qualitative methods are more appropriate in social science has been going since the 19<sup>th</sup> century (Smith and Heshusius, 1986). In quantitative methods, a researcher will treat social science as a natural science. The purpose is to determine the effects of a phenomenon and try to predict the future. Hence, the researcher will collect data (numerical data), and use statistical analysis to test predetermined hypotheses and generalize the results. On the other hand, qualitative methods reject the belief that social science is similar to natural science and asserts that reality is determined by the way social players interpret it. Hence, the researcher will try to explore the experiences of pertinent participants to understand the phenomenon which is being studied.

Employing qualitative and quantitative methods in the same piece of research has been criticized by different authors. For example, Lincoln and Guba (2000) stated that the two methods are fundamentally incommensurable because of the different paradigms that guide each method. Furthermore, Smith and Heshusius (1986) argued that with the use of mixed method, compatibility cannot be sustained. In addition, interpretivism and positivism are, according to Kuhn (1970), incompatible.

Given that there are several philosophical stances along the objectivism –subjectivism continuum, the researcher in the following sections will discuss the philosophical stance and mixed method research adopted in the current research.

### 5.3 Research paradigm: Realism

Taylor et al. (2007 p. 5) provided a general definition of paradigms as 'a broad view or perspective of something'. According to Naughton et al. (2001 p.32), a paradigm includes three elements: 'a belief about the nature of knowledge, a methodology and criteria for validity'. There are four main worldviews; these are positivism, interpretivism, transformative and pragmatism.

Weaver and Olson (2006 p.460) provide a more specific definition of a paradigm, where they state that 'paradigms are patterns of beliefs and practices that regulate inquiry within a discipline by providing lenses, frames and processes through which investigation is accomplished' .

Bogdan & Biklen (1998 p.22) define a paradigm as 'a loose collection of logically related assumptions, concepts, or propositions that orient thinking and research' . The two definitions agree that paradigms determine how the researchers will go about conducting their research; hence, a paradigm should be determined first before deciding what methodologies to implement.

Hall (2012) classified three approaches to employ with the mixed method research. These are:

- (i) Paradigmatic stance
- (ii) The multiple paradigm approach and
- (iii) The single paradigm approach.

The first approach describes where the researcher jumps directly to the methods of research, ignoring the philosophy and the paradigms. The multiple paradigm approach is when more than one paradigm, for example, positivism and interpretivism, is used with a mixed method research. He argues that research cannot be paradigm-free, and that the worldview that the researchers adopts determines the type of data which is collected, and the analysis methods that must be implemented. On the other hand, the use of more than one paradigm may result in an incompatible view of the world, and moreover, there are no guidelines on what paradigms can be used in conjunction with one another.

Finally, the single approach method exists, such as pragmatism or the transformative-emancipatory paradigm. The latter paradigm is used for specific topics in social science where the focus is a marginalised group such as women or people with disabilities; therefore, it can be applied in very specific fields of research.

However, pragmatism is concerned with the practical consequences of a method, so a researcher needs to wait until the research has been completed to determine if the method works or not. Based on pragmatism, a method is considered to be valid if it was able to solve the problem or the

question under study. Modell (2007) argues that the workability criterion is contingent and subjective. Maxcy (2003) adds that the workability principle is unclear and vague, and that it is not able to provide enough validation to the use of mixed method research. The methods which work or do not work are determined by the conditions and the context of each research; hence, it is highly subjective to judge the validation of a specific research method. Moreover, pragmatism does not provide guidelines on what and what does not work. Pragmatism philosophy has no specific way to look at how the world operates (i.e. ontologically), and no specific way to interpret knowledge (i.e. epistemologically). Pragmatism is rather concerned with solving problems and providing practical results through research.

Critical realism can bring the two contesting methods, qualitative and quantitative, together in the same research, because it recognises that there is a one real world with which we interact. Hence, it shares positions from both positivism and interpretivism as detailed below.

Ontology of critical realism acknowledges the existence of a single reality which is separate from the human conception of it, which is the positivism view of reality. Critical realism recognises that reality cannot be completely nor similarly in our conception, simply because human (researchers) perceive it differently due to the complex interactions between different influential events. Moreover, since organizations and social entities are open to the external environment, the effect of these complex interactions is multiplied (Fleetwood, 2007). This makes it harder to produce generalizable empirical observations about the world than research conducted based on the positivist position (Bhaskar, 1989). Critical realism provides the 'tendencies and regularities' which can be generated (Modell, 2007).

Critical realism shares a parallel epistemological position to that of relativism, because it recognizes the role of researchers in building knowledge, and believes that in addition to the empirical evidence, the researcher also needs to possess abstract conceptualisation (Modell, 2007).

Modell (2007) argues that critical realism is suitable for a mixed method methodology, and he ascribes this to the following features of critical realism;

- (i) Critical realism confirms the role of researchers in knowledge creation, resembling the interpretivism epistemological stance
- (ii) It allows regularities to be generated, although they tend to be context-bound.

Modell (2007) argues that the logic of mixed method triangulation is compatible with realism logic. Triangulation aims to use different methods in order to capture a precise visualisation of the phenomenon under study, and this is the basic notion of realism; that there is one reality which is

separated by human interpretations. He explains that using mixed methods can enhance the accuracy of the interpretations we have about that one reality.

#### **5.4 Methodology: Mixed Method**

One simple way to define a mixed method research is research where both qualitative and quantitative elements are employed. For example, Sieber (1973) suggested a 'new style of research', by combining qualitative and quantitative methods, specifically surveys and case studies. Proponents of this type of research argue that mixing methods can bring the strengths of each method into one set of research.

One of the criticisms of the mixed method research, is the methodological differences between the two methods i.e. qualitative and quantitative methods have different ontological, epistemological and axiological bases, and thus it is incompatible to combine them in one piece of research. However, Morgan (2007) argues that research does not only depend on the philosophical stance, it also depends equally on the pragmatic assumptions. In addition, as long as the research has multiple research questions, it is possible that each question could have a different philosophical stance (Brannen, 2005).

Laughlin (1995) argues that research approaches provide partial aspects of the truth; hence, none of them is capable of providing the complete truth. Jogulu and Pansiri (2011:688) state that 'divergent findings created through differing data collection and analysis techniques appear to lead to greater depth and breadth in overall results, from which researchers can make more accurate inference with increased credibility'.

According to Tashakkori & Creswell (2007), a mixed method research is an option when neither quantitative research nor quantitative research alone will be able to provide answers to the research under study. Mixed methods can provide results that are rich and useful (Johnson et al. 2007), collecting qualitative and quantitative data at the same time to provide comprehensive explanations for the research question. Triangulation is another advantage of mixing methodologies, where the same topic can be discussed from different angles.

Bryman (2008), indicated that while some aspects of research can be conducted employing qualitative methods, other aspects can be answered using quantitative methods. This is consistent with Tashakkori and Teddlie (2003) and Creswell (2008), who suggest that qualitative and quantitative methods can complement each other in the same research. While quantitative methods can provide generalizable results, they can also be criticized for not being able to provide adequate explanations for social phenomena. On the contrary, qualitative methods can provide

contextual details and adequate explanations for the matter undertaken at the expense of generalizability.

According to Johnson et al. (2007), reasons for mixing methods include, better and deeper understanding, more comprehensive results, confirming or explaining other approach's results, more confidence in the results. They noted that when defining the term mixed method, it is important to clarify that 'method' denotes a spectrum of analyses, including; philosophical issues, data collection and research methods. In that, they follow Greene (2006) who viewed the word method as a methodology.

A number of researchers and academics interviewed by Cassell et al. (2006) advocated the use of mixed method research in the field of management, believing that quantitative and qualitative methods can complement each other.

Mixed method research has been applied widely in management and accounting research (Modell, 2009; Cassell et al., 2006; Grafton et al., 2011; Chen, 2012; Albassam, 2014). In the area of corporate governance and disclosures, a mixed method has been proven to be viable (Boyd et al., 2012; Zattoni et al., 2013). According to Bergman (2008), a mixed method research has become more popular recently. He states that this is evidenced:

- (i) An increase in the number of studies which employ a mixed method research
- (ii) An increased number of publications that discuss the issue of mixed research
- (iii) Textbooks considering mixed method research as a separate existing method, and
- (iv) The increased number of conferences held about mixed method research.

Cassell et al. (2006) encouraged the application of mixed methods in the field of management research; he indicated that academics and practitioners in a project of the Economic and Social Research Council (ESRC) have recommended the use of mixed methods in the research of management. He among others (Laughlin, 1995, Modell, 2005) has supported the use of mixed methods in management research.

In their work to define mixed method research, Johnson et al. (2007, p.123) collected definitions for mixed method research from leading mixed methods research methodologists, these definitions ranged from viewing the collection of both quantitative and qualitative data as mixed method to research where mixing occurs at all stages. They concluded that mixed method research is a research where 'qualitative and quantitative elements are combined such as (viewpoints, data collection, and analysis) for the purposes of breadth and corroboration'.

The use of quantitative and qualitative methods under a mixed method research is not associated to specific design and methods. Denscombe (2009) indicated that researchers have been combining qualitative and quantitative methods in different ways.

Different researchers provide different designs for mixed method research. Steckler et al. (1992) provided a visual diagram for four types of mixed method research; no names for these types were given but a brief explanation for when to use each one. These are: qualitative methods to develop quantitative measures, qualitative methods to explain quantitative findings, quantitative methods to embellish qualitative findings, qualitative and quantitative methods used equally and parallel.

Three main types of mixed method research can be identified according to Johnson et al. (2007); pure mixed method, quantitative dominant, and qualitative dominant. Morse (1991) identifies two main types of mixed research: simultaneous and sequential, within each one either qualitative or quantitative methods can be the dominant, which makes four types of mixed method research. According to Creswell and Clark (2006), the four main designs of mixed methods are triangulation, embedded, the explanatory and exploratory design. In the field of social and behavioural research, Tashakkori and Teddlie (2003) defined the following types; multistrand, concurrent, sequential, and fully integrated mixed model design.

With these various types of mixed methods in the literature, methods can be differentiated by the dominance of the qualitative or quantitative method, the sequence of qualitative or quantitative method and the stage of mixing, i.e. collection, analysis or discussing the data. Tashakkori and Teddlie (1998), and Plano (2007), summarise four dimensions to differentiate methods:

- (i) The sequence of collecting data (concurrent or sequential),
- (ii) Priority (quantitative dominance or qualitative dominance),
- (iii) Stage of integration, and
- (iv) Theoretical perspective.

#### **5.4.1 Mixed methods for the current study**

This research intends to determine the causal relationship between corporate governance and risk disclosures in Jordanian banks. The study is also trying to capture how pertinent social players perceive the importance of risk disclosures. Hence, the research needs to employ both quantitative and qualitative methods (mixed method) to fulfil the previously mentioned objectives of the study.

The reasoning for using mixed methods is also for practical purposes; the limited number of banks in Jordan (the sample under study). According to Gill and Johnson (2002), the methodology adopted in

the research is affected by the resources available to the researcher. The study adopts the sequential quantitative-dominant design, which gives more weight to the quantitative data and will use qualitative data to explain results obtained from the analysis of this quantitative data.

A quantitative- dominant mixed method approach will be employed, and the quantitative part of the mixed method will be employed to examine statistical relations between risk disclosures and characteristics of the board. The qualitative part will help to explore management practices which are specific to Jordanian banks. Qualitative and quantitative data will be gathered and analysed concurrently with more emphasis on the quantitative data.

In the current research, the researcher uses proxies of corporate governance and risk disclosures suggested by previous works and her interview experience. Then, statistical techniques are employed to test the hypotheses of the relationships between corporate governance variables and risk disclosures. In the meantime, a qualitative approach, in particular interviews, is adopted to explain and affirm the results produced by the statistical tests.

## 5.5 Research design

According to Creswell and Plano Clark (2007), there are four types of mixed methods designs: explanatory design, exploratory design, triangulation design and embedded design. Tashakkori and Teddlie (1998) classified mixed methods into the following types:

- (i) Equivalent status (sequential or parallel),
- (ii) Dominant-less dominant (sequential or parallel), and
- (iii) Multilevel use.

Tashakkori and Teddlie (2003) found forty types of mixed method research in the literature. However, Creswell and Plano Clark (2007) argued that there are three issues to be considered when deciding what type of mixed method to use. The issues are:

- (i) The sequence of the data collection and analysis,
- (ii) The weight given to the quantitative and qualitative methods, and
- (iii) The stage/stages in the research process at which the quantitative and qualitative methods are mixed.

## 5.5.1 Mixed method design for the current research

### 5.5.1.1 Sequence of methods (the timing decision)

Two applications for the implementation of qualitative and quantitative methods in research are the parallel (concurrent or simultaneous) design, and sequential design (Morse, 1991; Tashakkori and Teddlie, 1998; Creswell et al., 2003). The former application refers to the situation where the two methods are implemented at the same time during the course of research, while the latter is when either one of the two methods is implemented before the other.

Beginning with quantitative methods and proceeding with qualitative methods to interpret the results will result in the explanatory sequential design according to Creswell and Clark (2011). Alternatively, a researcher can employ qualitative methods first and then apply quantitative methods to generalise results, and Creswell and Clark (2011) refer to this design as the exploratory design. The concurrent design is appropriate to validate one of the methods by the other, or when the research includes different types of questions (Creswell and Plano Clark, 2007).

In this research, the concurrent design is employed for two reasons. Firstly, quantitative data will be used to examine the effects of corporate governance variables on the level of risk disclosures, and concurrently, qualitative data collected from interviews with banks' directors and authoritative officials will be used to refine the variables picked for the study. Secondly, qualitative data is collected through interviews and it takes a long time to arrange and complete the interviews, especially when these take place in Jordan, and if the researcher was to collect the data sequentially this would take too much time over the period allocated for a PhD thesis.

### 5.5.1.2 The importance of each method (the weighting decision)

A decision to be made in a mixed method research is whether qualitative or quantitative methods have more weight and importance. The decision is determined based on several considerations, including; research questions, research objectives, availability of data and other practical reasons (Creswell, 2003). A researcher may give the two methods the same weight and priority or rely more on one of the methods.

In the current research, the quantitative method is given more importance. The main reason for this choice is the objective and the question of the research, specifically examining the effect of corporate governance mechanisms on the level of risk disclosures and testing hypotheses based on several existing theories (agency theory, proprietary cost theory, and resource dependency theory) about disclosure practices. However, as discussed in chapter two, research about risk disclosure is still limited (especially in developing countries), and therefore qualitative methods are also needed

in order to add to the literature of risk disclosure. Moreover, the research is conducted in the special case of Jordan, which differs from the societies where the theories were first developed. Hence, qualitative data is needed to address the context specialties.

#### **5.5.1.3 Mixing stages (The mixing decision)**

Mixed method research that does not mix and integrate qualitative and quantitative data is merely a collection of methods (Creswell, 2006). Woolley (2009, p.7) discusses that if both types of data are integrated and explicitly related in one study, then the results of the study will be 'greater than the sum of parts'. However, mixing the results of each method is more common than mixing the data itself (Bazeley, 2009).

Creswell (2006) provides three ways to mix data:

- (i) Merge the data: merging data occurs at the analysis or discussion phase,
- (ii) Embed the data: embedding one type of data in the design of another other type, or,
- (iii) Connecting the data: where the analysis and the results of one type leads to the other.

The current study adopts the embedded design, specifically the correlational embedded design. Qualitative data collected through interviews will be embedded in the correlational study of governance mechanisms and risk disclosures. Moreover, mixing the data will occur at all stages of the research beginning from data collection. Quantitative data will be collected from the annual reports of Jordanian banks and the interviews will be conducted simultaneously. Variables derived from theories will construct the major themes of the interviewer's questions. In addition, insights from interviewees will be used to refine or add to the variables.

At the analysis stage, since the analysis of both types of data is done simultaneously, the results of each one will be used to support or explain the results of the other. Moreover, the simultaneous analysis will help in comparing and vetting the results. Mixing qualitative and quantitative data at all stages will enhance validity through triangulation.

#### **5.5.2 Quantitative method design**

The purpose here is to discuss how quantitative data is collected and analysed. This section includes data sources, the sample selection (i.e. the sample banks used in the quantitative study), measurement of variables, and the statistical tests employed.

### 5.5.2.1 Sample selection

The banking sector consists of 26 banks, 15 of which are listed in the Amman Stock Exchange (ASE); three of these banks are Islamic banks<sup>1</sup>. The sample for the current research consists of the 15 listed banks. The choice of the banking industry is influenced by three main reasons.

The first reason is the importance of the banking sector in the Jordanian economy; the financial system in Jordan is considered bank-based since a great part of economic activities are financed by banks (World Bank, 2003), and they are considered the largest employer in the private sector (Awraq investment, 2015; n.a, 2014). The banking sector contributed 11.6% to the gross domestic product with 2011 (n.a, 2014). In mid-2015, total bank assets to the GDP were 170 %, and bank credit to the private sector was 76 % of the GDP in the same year (Bets and Frewer, 2016). Moreover, banks in Jordan have the highest capitalization in ASE, for example in 2005, the sector had 62.3% of market capitalization (IMF, 2006), and in 2008; the sector contributed for one third of the trading value in ASE (ASE, 2009). The development of the banking sector is one of the reasons that attract foreign investors to invest in Jordan (Jordanian Young Economists Society, 2012; Taha, 2014). For example, 51% of the non-Jordanian investments in ASE was in the banking sector in 2005 (IMF, 2005).

The limited effect of the global crisis on the banking sector in Jordan has helped the country in mitigating the crisis' effect on all other sectors (Ahid and Augustine, 2012). Despite the challenges and chaos in the region, the banking industry in Jordan continued its growth due to the well-capitalized and highly regulated environment (Awraq investments, 2013). According to Abu Orabi (2016), the banking sector remained strong and maintained its growth in the years of (2013-2015) despite the external shocks of the Global Credit Crisis and the Arab Spring.

Secondly, several legislative frameworks have been introduced in the last two decades, regarding corporate governance and risk management. In 2004, The Central Bank of Jordan introduced the Bank Directors' Handbook OF Corporate Governance to provide guidance for banks on the area of corporate governance. In 2007, the corporate governance code was established on the basis of comply or explain (Central Bank of Jordan, 2007).

Finally, the study examines the level of risk disclosures, which is not discussed in detail in the annual reports of non-financial firms, because risk management systems are not well developed in such firms in Jordan. It is worth mentioning that focusing on one industry will enhance the comparability among banks, because the heterogeneity of types of risk is less compared to different industries.

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<sup>1</sup>Islamic banks are based on a profit-and loss-sharing (PLS) principle. Interest is prohibited in the operations of the bank but rather participates in the yield resulting from the use of funds (Lewis and Algaoud, 2001).

### 5.5.2.2 Data Sources

The sample size of this research is only 15 banks; hence, panel data will be employed because it is difficult to conduct strong statistical analysis with this sample size. Through the use of panel data, the research will employ time series and cross sectional data. Data will be collected for the period (2007-2016), in order to capture the effect of corporate governance regulations on the quantity and quality of disclosures. According to Hsiao (2007), using panel data helps in uncovering dynamic relationships. Moreover, using panel data will enable the use of 'a much larger data set with more variability and less co-linearity among the variables than is typical of cross-section or time-series data' (Hsiao, 2007, as quoted in Baltagi, 2005 P.3).

The time period of (2003-2014) was chosen for two reasons. Firstly, the Bank Directors' Handbook Of Corporate Governance was introduced in 2004. Therefore, the study will examine risk disclosures before and after the introduction of the guidelines. Secondly, the corporate governance code was introduced in 2007; so risk disclosures after the year of 2007 will be compared to those before the implementation of this code. Finally, 2014 was chosen as the end date for the study period because on the 30<sup>th</sup> of September 2014, a new code for corporate governance was established.

Data about risk disclosures and corporate governance practices will be collected manually from the annual reports of banks, which are obtained from the ASE website or banks' websites.

### 5.5.2.3 Research methods

This section aims at answering three questions:

1. What is the level of risk disclosures in the annual reports of the Jordanian banks?
2. What is the association between individual corporate governance mechanisms and risk disclosures?
3. What is the influence of Corporate Governance Codes on the level of risk disclosures?

#### Question 1: Level (Quantity and Quality) of Risk Disclosure

The challenge with disclosure studies is how to measure the quality of disclosures. Disclosures are generally measured using two methods; subjective rankings and semi objective methods, which include content analysis and disclosure indices. The first method depends on analyst rankings published by the AMIR; The Association of Investment Management and Research. Studies using this approach were mainly undertaken in the US and stopped being produced in 1995.

Most studies on general risk reporting or on a specific type of risk, for example, operational risk, have been using content analysis of annual reports (Beretta and Bozzolan, 2004; Linsley and Shrives, 2006; Linsley et al., 2006; Abraham and Cox, 2007; Amran et al., 2009). Other studies have been performed using disclosure indices (Botosan, 1997; Robb et al., 2001), where the two types of indices are nominal and ordinal. The nominal index only checks for the presence of the disclosure, whereas the ordinal index gives a scoring level to the disclosure based on its compatibility with some criteria. Mostly these studies have been performed on non-financial companies.

One major limitation of indices is that items chosen for the index are usually only a small sample of the items that a firm will disclose, because disclosures that could be made by firms are countless. This could lead to some disclosures being ignored. However, the present study aims to avoid this limitation by using a content analysis method, whereby the entirety of the annual report will be investigated and all disclosures will be counted.

Another limitation with using indices lies in the fact that they measure only the absence or the presence of specific predetermined items. Hence, the method cannot reflect the structure of disclosure, thus reducing the richness of the data. According to Cooke (1989), these type of indices are suitable when a study is not focusing on a specific user group, rather it is considering all types of users. i.e. each disclosed item is equally important as the next.

If the previous mentioned limitation is to be solved by employing the ordinal index, and assigning weights to disclosures based on their importance, we confront another problem. Cooke (1989, P.115) states that 'one class of user will attach different weights to an item than another class of user', i.e. different users have different views on which disclosures are considered to be important. Moreover, disclosure indices generally measure the existence of particular items of disclosures, rather than quality.

In their study of disclosure measurement in empirical accounting literature, Hassan and Marston (2010) argued that there is no comprehensive study on how to measure disclosure that can guide researchers on when they should develop their own measures of disclosure and when they can adopt an available measure.

Mouselli et al. (2012) reasoned that the absence of a clear definition of quality made the measurement of the quality of disclosures extraordinarily difficult. Also, as Botosan (2004) states, disclosure quality is perceived differently by different users due to their different types of decisions.

In the current research, a content analysis approach will be adopted to measure risk disclosures in the annual reports of the firms under study. Content analysis is an ideal method for analysing risk disclosures.

One reason for this is that risk information is usually qualitatively disclosed (Carlon et al., 2003; Beretta and Bozzolan, 2004; Lajili and Zeghal, 2005; Kajuter and Esser, 2007), and content analysis is useful for assessing narratives and coding qualitative data into categories (Holsti, 1969). The quantity of risk disclosures will be measured by the number of risk disclosure sentences, whilst quality variables are:

- (i) Risk category,
- (ii) Time orientation,
- (iii) Qualitative or quantitative, and
- (iv) Sign of disclosure (good news or bad news).

#### **5.5.2.3.1 Content Analysis**

Content analysis is the most common method used to measure disclosures in accounting research (Haniffa and Cooke, 2002). In the literature of disclosures, content analysis has been used to measure the quantity and quality of disclosures in firms' annual reports (Beattie et al., 2004; Hussainey et al., 2003; Sharif and Rashid, 2014; Kothari et al., 2009; Samaha et al., 2012). Moreover, content analysis has been employed in risk disclosure literature to measure quantity and quality (Abraham and Cox, 2007; Beretta and Bozzolan, 2004; Rajab and Handley-Schachler, 2009; Elshandidy et al., 2013; Khaledi, 2014; Amran et al., 2008).

Abbot and Monsen (1979) define content analysis as 'a technique for gathering data that consists of codifying qualitative information in anecdotal and literary form into categories in order to derive quantitative scales of varying levels of complexity' (Abbot and Monsen 1979 p.504). Krippendorff (1969 p.11) defines it as 'the use of replicable and valid methods for making specific inferences from text to other states or properties of its source'. Weber (1990) defines content analysis as a method used to draw inferences from a text by employing a set of procedures. Bryman and Bell (2011) define content analysis as a method of analysing text and identifying the content using predetermined codes and categories in a systematic and replicable manner.

The previous definitions agree that content analysis involves extracting a meaning from a certain text or any source of information and converting dispersed and latent information into meaningful inferences. Moreover, two of the definitions agreed that the method employed should be replicable

to ensure the reliability of content analysis. No specific method of content analysis was mentioned, following is description of content analysis that will be used in the current study.

In the literature of disclosures, content analysis has been used to measure both quality and quantity (Gray et al., 1995a; Unerman, 2000; Unerman, 2003, Campbell, 2000; ZeÂghal and Ahmed, 1990; Adams et al., 1995; Lajili and Zeghal, 2005). Content analysis can be qualitative or quantitative (Hernández-Madrigal et al., 2012; Unerman, 2003), and deductive and inductive (Wolfe, 1991).

The notion behind quantitative content analysis is that the amount of words, or any type of units disclosed about the subject matter determines its importance. Pros of this method (Berelson, 1952; Neuendorf, 2002; Kassarjian, 1977) are objectivity and generalizability of results, for example, a researcher can only count the appearances of a certain word in the examined text. Whereas, qualitative content analysis is criticized as being subjective and unreliable (Sepstrup, 1981) since the researcher has to make judgements during the process of content analysis. Hence, quantitative content analysis increases the comparability of research (Holsti, 1969),

On the other hand, pros of qualitative content analysis include: (i) according to (Holsti 1969 p.10) it produces 'more meaningful inferences'. Since it gives the researcher to delve more deeply into the content (Krippendorff, 1969; Unerman, 2003; Day and Woodward, 2004). (ii) In order to conduct qualitative content analysis, predetermined steps and rules have to be followed (Kohlbacher, 2006). Mayring (2000) defines it as an approach of empirical and methodological based analysis of texts in a specific communication mean, following analytical rules and models, without rash quantification.

To conduct qualitative content analysis, there are three analytical procedures that can be used separately or in combination (Mayring, 2002; Mayring, 2003; Titscher et al., 2000):

- (i) A summary; where the text is paraphrased or abstracted,
- (ii) Explication: where the text is explained and clarified, and
- (iii) Constructing.

Constructing is essentially the same as classic content analysis, where the researcher determines the unit of analysis, category system and rules of coding. However, this method includes two stages of appraisals, during which the categories determined can be revised and modified. Mayring (2000) adds that the determination of the categories can be developed inductively or deductively.

#### **5.5.2.3.1.a Risk Information Location**

The annual report is considered to be the main source of information about firms, according to different users (Al-Razeen and Karbhari 2004; Abu-Nassar and Rutherford 1996). Supplementary

documents include the notes to a financial statement, which will be analysed for mandatory risk information, and the management report which will be analysed for voluntary risk information.

### **5.5.2.3.1.b Units of Analysis**

Three main units of content analysis can be identified in the literature. These are words, sentences and proportions of page counts (Linsley and Shrives, 2006).

Using words as a measure of disclosures is fairly accurate (Unerman, 2000), however, the meanings of the words cannot be perceived without referring to the context (Linsley and Shrives, 2006). Using page proportion has its own limitations as well, for example, pages might have only pictures with no information on the activity under study (Al-Tuwaijri et al., 2004). Unerman (2000) mentioned the judgment needed in case a page had a blank part.

Therefore, many researchers agree on the use of sentences as a unit of analysis (Ntim et al., 2013; Elshandidy et al., 2013; Beattie et al., 2004; Hussainey et al., 2003; Linsley and Shrives, 2006). According to Milne and Adler (1999), using sentences to measure disclosures can provide 'complete' and 'meaningful' data, and the same sentiment is suggested by Hooks and Van Staden (2011) and Beattie and Thomson (2007). Ntim et al. (2013) states that the use of sentences to code risk disclosures is a 'well-established line', and this makes results comparable to the results of previous studies.

A sentence is considered a risk disclosure if it enables the reader to be better informed about risks that had or will have an impact on the bank, or about risk management in the bank. The sentence does not have to include the word risk in order to be considered a risk disclosure (Linsley and Shrives, 2005).

The following process describes how risk disclosures are measured.

1. Classification of disclosures into risk types
2. Determining whether the item is qualitative or quantitative data
3. Determining whether the item is a positive or negative risk
4. Determining the time frame of the item i.e. past or future

This checklist is used throughout the literature (Ntim et al., 2013; Rajab and Handley-Schachler, 2009; Linsley and Shrives, 2006; Woods and Reber, 2003; Adamu, 2013).

### 5.5.2.3.1.c Risk Categories

According to Vourvachis and Woodward (2015), there are two designs to conduct content analysis: index and volumetric approach. A simple binary code of the index may result with information loss, for example, companies will receive a score just by mentioning a specific type of disclosure, without paying attention to how many disclosures the company have about that specific type (Beattie and Thomson, 2007). Moreover, Papa (2007) argued that an index method cannot capture the characteristics of risk disclosures and that the use of index might cause a loss of information, due to the design of the index which looks for the mere existence of certain item regardless of the number of times it was mentioned.

There is no comprehensive guidance on risk disclosure categories that can be used in content analysis in all countries or companies, because of differences in disclosure requirements and regulations. The categories in this study are based on:

- 1) Risk disclosure literature,
- 2) IFRS, corporate governance code and Jordanian risk disclosure regulations, and
- 3) Discussion of the selected items with a number of professional auditors and regulators in Jordan.

A coding scheme is adopted by Linsley and Shrives (2006) and Beattie et al. (2004). A similar approach was adopted by Papa (2007) and Rajab and Schachler (2009).

According to Linsley and Shrives (2006), a coding instrument for content analysis can be justified by adopting an instrument that has been used by other studies. In addition, using a model that has already been used in the literature is capable of enhancing the validity of the coding analysis (Weber, 1985). The coding scheme used by Linsley and Shrives (2006) is based on the model developed by a professional accountancy firm (ICAEW, 1998). The scheme is common in the literature of risk disclosures and has been applied in different countries, for example, Germany (Kajuter, 2001), Egypt (Mokhtar and Mellett, 2013) (Egypt), Japan (Mohobot, 2005), South Africa (Ntim et al., 2009), Portugal (Sliva et al., 2015), the UK (Linsley and Shrives, 2006) and Italy (Beretta and Bozzolan, 2004).

Risk categories are; financial, operational, environmental, technological, strategic, integrity, empowerment, and economic. References for risk categories in the literature can be found in Table A.2 in the appendix. The framework was applied in the UK where reporting on non-financial risks is voluntary, which is the same case as in Jordan. Financial disclosures of risk are mandated by IFRS, whereas non-financial disclosures are voluntary.

#### **5.5.2.3.1.d Nature of The Disclosure**

According to Beretta and Bozzolan (2004) and Linsley and Shrives (2006), the quality of risk disclosures is associated with the level of quantitative risk disclosures. Narrative disclosures on their own are not adequate for stakeholders to make their quantitative assessments of risk, therefore, quantitative risk disclosures are necessary to help investors and other stakeholders in forming clearer expectations from disclosed risks (Kongprajya, 2011; Hodder et al., 2001; Deumes, 1991), hence reducing uncertainty and enhancing transparency (Oliveira and Rodrigues, 2011).

Accounting standards and regulations focus more on financial disclosures, for example IFRS 7, and leave other types of risk disclosures to the discretion of management (Lajili and Zeghal, 2005; Dobler et al., 2008). However, non-financial disclosures are disclosed more in financial statements (Ereira, 2007; Beretta and Bozzolan, 2004; Liu, 2006; Oliveira et al., 2011).

The item is considered quantitative if it provided quantifiable financial or non-financial information (Papa, 2007)

#### **5.5.2.3.1.e Sign of The Disclosure**

Classifying risk disclosures into the categories of good, bad or neutral is common in the literature of risk disclosures (Ereira, 2007; Puga, 2012; Linsley and Shrives, 2006; Oliveira and Roberts, 2011; Silva et al., 2015; Adamu, 2013).

Research on risk disclosures found that most of the risk disclosures in the annual reports are neutral (e.g., Linsley and Shrives, 2006; Rajab and Handley-Schachler, 2009; Abraham et al., 2012; Rattanataipop, 2013), moreover, firms tend to disclose more good news compared to bad news, since bad news can affect the firm's reputation (Skinner, 1994).

#### **5.5.2.3.1.f Time Frame of Disclosure**

Research on risk disclosure classifies risk disclosures based on their time reference (Lisley and Shrives, 2006; Lajili and Zeghal, 2005; Beretta and Bozzolan, 2004; Beattie et al., 2004; Oliveira et al., 2011; Puga, 2012; Solomon et al., 2000).

While forward disclosures are more useful to stakeholders than backward disclosures (Linsley and Shrives, 2006), forward information is uncertain and may expose the firm to litigation costs (Linsley and Shrives, 2000).

Sentences that inform the user of future uncertainty is to be coded as forward-looking, otherwise it is coded as past information (Papa, 2007).

### 5.5.2.3.1.g Quality Indicators

Several studies have been trying to measure the quality of risk disclosures (e.g., Beretta and Bozzolan, 2004; Rattanataipop, 2013; Miihkinen, 2012; Martikainen et al., 2015). Beretta and Boazzolan (2004) suggested that the quality of disclosure is a factor of quantity of disclosures and of the richness of the information. While it is easy to measure quantity, it is hard to measure quality. Different indicators of quality have been suggested by different researchers. Examples are:

Table 5.1: Quality indicators in the literature of risk disclosures

Study	Quality indicators
Beretta and Bozzolan (2004)	Three factors were addressed: economic sign; types of measures (quantitative and qualitative)
Rattanataipop (2013)	Four Factors of quality: time orientation of disclosure disclosure of factuality and perception; disclosure direction risk categories.
Miihkinen (2012)	Three factors of quality: Coverage (concentration over risk categories) Depth (expected economic impact on the future) Outlook profile (disclosure of risk management approach)
Neri et al. (2017)	Three factors of quality: Coverage (concentration over risk categories) Depth (expected economic impact on the future) Outlook profile (disclosure of risk management approach)
Martikainen et al. (2015)	One factor of quality: Coverage (concentration over risk categories)

In the current study the following quality indicators will be employed

#### 1. Coverage of risk disclosures

Different users of annual reports have different aims and needs based on the decisions they intend to make. Hence, a firm should provide risk information in all topics in a balanced manner. According to Martikainen et al. (2015), for investors to understand firm's risk profile, information on firm's

major risks should be provided equally. In the survey conducted by Solomon et al. (2000), investors indicated different types of risk topics they need to be included in the annual reports.

Coverage indicator is employed previously by Miihkinen (2012), Martikainen et al. (2015) and Neri et al. (2017), and is based on the suggestions of Beattie et al. (2004). It measures the distribution of risk disclosures over main categories; financial, operational, environmental, technology, strategic, compliance, integrity, empowerment, economic.

Coverage of risk disclosures can be calculated as follows:

$$\text{Coverage} = ((1/H)/\text{The number of main risk topics})$$

$$n = 2$$

$$H \text{ is the Herfindahl index, (measured as } H = \sum_{i=1}^n p_i^2)$$

$$i=1$$

Where  $p_i$  = Proportion of disclosures in topic  $i$

## **2. Depth of risk disclosures:**

Semantic of risk disclosures have been examined in several studies (e.g. Beretta and Bozzolan, 2004; Rattanataipop, 2013; Miihkinen, 2012). Beretta and Bozzolan (2004) argues that it is important to measure what and how information is disclosed when measuring how much is disclosed. Hence the authors developed measures of semantic proprieties of disclosures based on guidelines of professional entities such as FASB and AICPA, two semantic properties were developed: economic sign and type of disclosures.

Second indicator in this study is depth, which is suggested by Beretta and Bozzolan (2004) and employed by Miihkinen (2012), and Neri et al. (2017). Two semantic properties are summarized in this indicator (i.e. sign and type), it measures the focus of disclosures on the future impact of risk on firm's performance and whether the future impact is disclosed quantitatively or qualitatively. Hence, this indicator has two parts.

The extent of future risk disclosures has been examined due to the importance of this type of information to investors (Linsley and Shrives, 2006; Solomon et al., 2000). It is assumed that forward looking disclosures are of more quality (Linsley and Shrives, 2006). Forward looking risk disclosures is linked to reduced investors' uncertainty (Linsmeir et al., 2002) and with accurate share-price forecasts (Beretta and Bozzolan, 2004). Nevertheless, most of risk disclosures is historical or non-time (Rajab and Handley-Schachler, 2009; Dobler et al., 2011; Abraham et al., 2012).

a) Qualitative disclosure depth can be calculated as follows:

$k_j$

Qual. Depth =  $\ln \sum_{j=1}^k \text{Qualitative}_j$

$j=1$

where  $k_j$  = the number of risk information sentences disclosed by the firm; qualitative $_j$  = 1 if the risk information sentence  $j$  of the firm contains qualitative information about the expected economic impact of the identified risk on future performance, otherwise qualitative $_j$  = 0

b) Quantitative disclosure depth can be calculated as follows:

$k_j$

Quan. Depth =  $\ln \sum_{j=1}^k \text{Quantitative}_j$

$j=1$

where  $k_j$  = the number of risk information sentences disclosed by the firm; quantitative = 1 if the risk information sentence  $j$  of the firm contains qualitative information about the expected economic impact of the identified risk on future performance, otherwise quantitative = 0

### 3. Composite of risk disclosures:

To summarize quality indicators mentioned above, a composite measure of risk disclosures will be developed based on factor analysis (Miihkinen, 2012). Factor analysis can be employed to condense several variables into one factor (Hair et al., 1995). Hence, previous qualitative indicators and quantity of risk disclosures will be summarized using factor analysis to get a composite measure of risk disclosure quality.

Composite = the score of the principal component with the highest eigenvalue

Table 5.2: Measurement of dependent variables

<b>Measurement of dependent variables</b>	
Quantity of risk disclosures	Number of risk disclosure sentences
Coverage of risk disclosures	Coverage = $((1/H)/\text{The number of main risk topics})$

Disclosure depth	$kj$ $\text{Qual. Depth} = \ln \sum_{j=1}^k \text{Qualitative}_j$ $kj$ $\text{Quant. Depth} = \ln \sum_{j=1}^k \text{Quantitative}_j$
Composite	the score of the principal component with the highest eigenvalue

#### 5.5.2.3.1.h Reliability of Content Analysis

When conducting content analysis, the reliability of the coding scheme and the data collected need to be indicated to ensure the replicability and the validity of the results (Milne and Adler, 1999).

To ensure reliability, multiple coders are employed to code the same data or the same coder with the use of coding scheme and decision rules that are established in the literature (ibid). According to Haniffa and Cooke (2005) and Laidroo (2009), coding the text by a single coder ensures consistency.

The researcher has conducted two rounds of coding, which according to Ghazali and Weetman (2006) ensures consistency. Non-significant differences were found after applying the Kappa test.

One way to ensure reliability is the use of well-defined coding schemes, instruments, and decision rules and categories (ibid). According to the authors, this decreases the need for multiple coders.

Guthrie et al., (2004) describes that the reliability of content analysis can be enhanced by using disclosure categories based on relevant well established literature, and by using a reliable coding scheme.

This research applies risk categories based on the categories introduced by ICAEW (1997), and were applied in the risk disclosure research (Linsley and Shives, 2006; Konishi and Ali, 2007; Amran et al., 2009; Mokhtar and Mellet, 2013). However, to make sure the scheme includes all IFRS required risk disclosures, risk disclosure items were checked against the IFRS disclosure checklist by the ICAEW.

Finally, for more validation, the checklist was reviewed by an auditor from Ernst and Young, Amman and a consultant from the Central Bank of Jordan. These auditors were asked to add any relevant items that are not included. The checklist was then modified according to their recommendations.

Milne and Adler (1999) state that using reliable coding instruments negates the need for multiple coders, and that well specified decision rules and decision categories reduces discrepancies even if the coder is relatively inexperienced.

## Reliability tests

According to McHugh (2012), Cohen's kappa test is a robust statistical method to ensure both interrater and intrarater reliability. The Value of the test can be viewed as the level of agreement between two sets of data after accounting for chance (Cohen, 1960). Test results can range from -1 to +1, the closer the result to 1 the higher the agreement between the two sets of data. According to Landis & Koch (1977), values between 0.81 and 1 represents almost perfect agreement. However, Kvalseth (1989) suggested that a value of 0.61 can be considered a reasonable good agreement. The results of Cohen's Kappa test for the current study were as follows.

Table 5.3: Kappa reliability test

	Value	Asymptotic Standard Error <sup>a</sup>	Approximate T <sup>b</sup>	Approximate Significance
Measure of Agreement	Kappa	.819	.072	19.867

Intraclass correlation coefficient is another of reliability test that can measure reproducibility and repeatability (Watson and Petrie, 2010). Values of the test ranges from zero to one, where zero implies no agreement and one implies perfect agreement. The value for the current research was 0.896.

### 5.5.2.3.1.i reliability threats to content analysis

Problems with content analysis include reliability and validity. Krippendorff (1980) defines three types of reliability to be achieved; stability, reproducibility and accuracy.

Stability refers to the extent to which the same coder produces the same results over time. Reproducibility refers to the extent to which two coders or more employ the same coding rules consistently. Accuracy compares the coding process to a given standard.

To confirm reliability, two approaches can be used; multiple coders for the same text or the same coder with well-defined decision rules and predetermined coding categories (Milne and Adler, 1999 and Mokhtar and Mellet, 2013). According to Milne and Alder (1999), a little inconsistency appears when coding is completed by inexperienced coders if they use well-defined coding categories and decision rules.

In order to ensure consistency, a single coder will complete the coding process (Mokhtar and Mellet, 2013; Laidroo, 2009; Haniffa and Cooke, 2005) and the two rounds of coding (i.e. coding the annual reports in two different periods) will be done (Ghazali and Weetman, 2006 and Mokhtar and Mellet,

2013). As mentioned previously, the study adopts the decision rules employed by Linsley and Shrives (2006); Konishi and Ali (2007); Woods and Reber (2003) and Mokhtar and Mallet (2013).

### **Question 2: What is the Association between Corporate Governance Mechanisms and Risk Disclosures?**

According to Muth et al (2016), small samples may yield results that are not generalizable to the population, and a solution to this problem is to employ robust research methods which are free from measurement error. Moreover, small samples if analysed longitudinally, have the ability to provide very rich information.

#### **5.5.2.3.2 Multivariate analysis**

According to Muth et al (2016), small samples may yield results that are not generalizable to the population, and a solution to this problem is to employ robust research methods which are free from measurement error. Moreover, small samples if analysed longitudinally, have the ability to provide very rich information.

The study aims at examining if the variations in risk disclosures are explained by the variations of governance characteristics, multiple regression is appropriate here since the research is examining the association between independent variables (governance mechanisms) and dependent variable (risk disclosures), rather than examining causal association. Hence, the study employs multiple linear regression analysis and uses Ordinary Least Square (OLS), where the total risk disclosures is regressed on independent variables to test the research's hypotheses.

Assumptions for multiple linear regression were checked. The assumptions are: normality, autocorrelation, heteroscedasticity, linearity, and multicollinearity. Results of these tests are reported in section 7.5 of chapter 7.

#### **Robustness test:**

According to Chung and Zhang (2011), unobserved characteristics of firms might influence disclosure levels, since firms face different challenges and opportunities. Unobserved effects might not be captured by OLS regression (Gujarati, 2003). Hence, Random effect model will be applied to test the robustness of the OLS regression results.

#### **5.5.2.3.2.1 Independent Variables Definition**

The main model regressed total risk disclosures to factors of corporate governance. Corporate governance variables are classified into four groups which were board of directors' variables, audit committee variables, risk committee variables and ownership structure. Data on the dependent and

independent variables were obtained from the banks' annual reports. Annual reports can be found on banks' and Amman Stock Exchange (ASE) websites. Independent variables were mainly based on risk disclosure literature. However, the selection was also based on the interviews analysis that showed variables that are relevant to the Jordanian context such as Arab ownership

**Board of directors variables:**

Variables of the board of directors are; size, independence, duality, qualification, meeting frequency, and members directorships. Board size is defined as the number of directors who are on the board (Lipton and Lorsch, 1992; Yermack, 1996; Ahmed et al., 2006). Independence variable referred to the independence of the board and is measured as the proportion of independent (non-executive) directors to the number of total directors on the board (Boonyawat, 2013; Abdul Latif, 2013; Chau and Gray, 2010). Information on independent directors was obtained from the banks' annual reports. Duality is when the chairman of the board is at the same time the CEO. CEO duality is measured as 1 if the CEO and board chairman positions are held by different people, and 0 otherwise (Haniffa and Cooke, 2002; Sheikh et al., 2012 Haniffa and Hudaib, 2006; Jaafar and El-Shawa, 2009). Qualification was measured by two variables which were the educational level of the members of the board and the financial experience. The information on these variables was obtained from banks' annual reports. Educational level is measured as the ratio of directors who have postgraduate degrees to the number of all members of the board, because all members have bachelor degrees (Darmadi, 2012; Bathula, 2008; Gantenbein and Volonté, 2011; Vo and Phan, 2013).

To determine whether the member has a financial experience, criteria based on the work of Minton et al. (2014), Guner et al. (2008) and Malmendier and Tate (2005) was employed. A director is considered a financial expert if he or she has:

- (i) Experience in an executive position in a financial institution,
- (ii) A finance-related position i.e. accountant, treasurer or consultant, or
- (iii) An academic position in a relevant field, for example, accounting or finance.

Financial experience is measured as the percentage of members with financial experience to the total number for board members (Minton et al., 2010; Admas and Jiang, n.d.).

Meeting frequency is defined as the number of meetings per year (Vafeas, 1999; Barros et al., 2013; Dwivedi, n.d.). Information on the variable was obtained from banks' annual reports. Number of directorship will be measured as the percentage of directors who hold five directorships or more to the total number of directors. The Company Law (1997) recommends a maximum of five directorships. Hence, a director will be considered busy if they hold more than five directorships

### **Risk committee variables**

Three variables are included to examine risk committee characteristics, variables are size, experience and independence. Size of the committee is measured as the number of members on the committee (Al-Hadi et al., 2015). The criteria used to determine if a member in the committee is a financial expert is the same used in determining financial experience for the board of directors. The variable is measured as the proportion of experienced members to the total number of the committee members. Independence of the committee is measured as the percentage of the independent members on the risk committee (Klein 2002).

### **Audit committee variables**

Three variables of audit committee were examined; size, experience and independence. The size of the audit committee will be measured as the number of members in the committee. Experience variable is measured as 1 if there is at least one financial expert on the committee and 0 if there is no financial expert at all. This method was used by Li et al. (2012), Hamdan et al. (2012), Adelopo (2016) and Abernathy et al. (2011). The criteria used to determine if the member in the committee is a financial expert is the same used in determining financial experience for the board of directors. Independence is measured as the percentage of independent members on the audit committee (Klein 2002; Krishnan 2005; Kang et al. 2011; Stewart 2015).

### **Ownership structure variables**

Ownership structure was measured by various variables, managerial, family, foreign and blockholders. Managerial ownership is measured as the percentage of shares held by officers or directors within the firm and their relatives (Karathanassis and Drakos, 2004; Al-Fayoumi et al., 2010; Alwshah, 2009). Family ownership defined as the percentage of shares held by families to the total number of firm's shares (Alkhawaldeh, 2012; Wang, 2006; Miller et al., 2010).

Foreign ownership is where a percentage of shares is owned by foreign or non-Arab investors who may be individuals or institutions. Foreign ownership is defined as the percentage of outstanding equity held by foreign shareholders (Bokpin and Isshaq, 2009; Marashdeh, 2014; Mangena and Taurigana, 2007).

Based on interviews and the information provided in the annual reports of the banks, great amount of shares was owned by Arabs. Hence a new variable was defined and measured as the proportion of shares owned by investors from any Arabic country to the total shares of the bank. Blockholder ownership is defined as the total percentage of shares that are owned by shareholders who own

more than 5% in in the bank. Banks provided information on the number of shares owned by their board and managers in their annual reports.

Table 5.4: Independent Variables and Corporate Governance Proxies

<b>Board of directors:</b>	
Size of the board (BSZ)	The number of board members at the end of the financial year.
Composition of the board (BIND)	Percentage of independent directors to the number of total directors on the board.
Leadership style (BDUAL)	CEO duality is measured 1 if the CEO and board chairman positions are held by different persons and 0 otherwise.
Financial experience on the board (BEXP)	<p><b>1.</b> The ratio of directors who have postgraduate degrees to the number of all members of the board</p> <p><b>2.</b> Financial experience is measured as the percentage of members with financial experience to the total number for board members</p>
Frequency of meeting (BMF)	The variable is defined as the number of meetings per year.
Number of directorship (BDIRC)	The percentage of directors who hold five directorships or more to the total number of directors.
<b>Audit committee:</b>	
Expertise of audit committee (CEXP)	1 if there is at least one financial expert on the committee and 0 otherwise.
Independence of the committee (CIND)	Percentage of independent members to the total number of committee members.
<b>Ownership structure</b>	
Managerial ownership (MANO)	The percentage of shares held by officers or directors within the firm and their relatives
Block-holder ownership	The total percentage of shares that are owned by shareholders

(BLKO)	who own more than 5% in in the bank
Family ownership (FAMO)	The percentage of shares held by families to total number of firm's shares.
Foreign Ownership (FOREO)	The percentage of outstanding equity held by foreign shareholders.
<b>Control Variables</b>	
Size	Total bank assets (in logs)
Profitability	ROA (operating income to total assets)

Assumptions for the use of OLS regression are linearity, normality, multicollinearity, auto-correlation and homoscedasticity (Ntim et al., 2012; Samaha et al., 2012). The Q-Q plot will be conducted to test for homoscedasticity, linearity and normality assumptions (Ntim et al., 2012; Haniffa and Cooke 2000). The Variance Inflation Factor (VIF) will be used to test multicollinearity. Finally, the Durbin Watson test is used to check for autocorrelation.

#### 5.5.2.3.2.2 Control Variables

Control variables are introduced into the examined model to control for the firm's profitability and size. Control variables were chosen selected on the basis of prior research.

##### 1. Bank Size

It is expected that larger firms will disclose more information (Souissi and Khelif, 2012), because disclosures costs are less compared to smaller firms (Watson et al., 2002). This is because the costs of collecting and disseminating information are higher for smaller firms (Lang and Lundholm, 1993).

In the literature of risk disclosures, some researchers found a significant positive association between firm size and risk reporting was found (Linsley and Shrives, 2006; Abraham and Cox, 2007; Elshandidy et al., 2013; Ntim et al., 2013), but others found a negative association between firm size and risk reporting (Lajili and Zegal, 2005; Hill and Short, 2009). Some researchers also reported that there is no significant association between firm size and risk disclosures (Doyle et al., 2007; Ashbaugh-Skaife et al., 2007).

Firm size was measured as the log of total assets (Lajili and Zegal, 2005; Mohobbot, 2005; Konish and Ali, 2007; Oliveira et al., 2011; Elzahar and Hussaine, 2012; Miihkinen, 2012; Baraket and Husseiny, 2013).

## 2. Bank Age

There are two contradicting views about the association between disclosures and firm ages. On one hand, it is expected that younger firms disclose less information due to their higher competitive disadvantages and higher costs of gathering and disseminating information compared to older well established firms (Owusu-Ansah, 1998). Moreover, older firms are expected to have strong internal controls (Ibrahim, 2014), hence, more disclosures are expected. On the other hand, younger firms might disclose more information in an attempt to attract investors and establish a good reputation (Yao et al., 2011).

Empirically, Hossain and Hammami (2009) reported a positive relationship between firm age and disclosure level, others found no significant association (Alsaeed, 2006; and Hossain and Reaz, 2007). Bank age will be measured as the number of years since which the bank was established.

### **Question 3: The Influence of Corporate Governance Codes on the Level of Risk Disclosure**

The purpose of this section is to determine how the recent corporate governance codes in Jordan have affected the level of risk disclosures in the annual reports of Jordanian banks. Hernandez-Madrigal et al. (2012) studied risk disclosures in Spain before and after the introduction of codes like the Olivencia Code; and the authors reported a gradual increase in risk disclosures over the period of the study. They also found an increase in the quantitative and detailed disclosures of risk.

According to Solomon et al. (2000), any increase in the level of risk disclosure is an indication that corporate governance efforts were effective. Rajab and Handley-Schachler (2009) reported the same results after examining risk disclosures in the UK over the period 1998 to 2004.

In order to measure the change in the level of disclosures over the period of the study; the parametric one-way repeated measures ANOVA will be used to examine if the average level of risk disclosure has increased over time. This parametric test is used when 'you take the same sample of subjects or cases and you measure them at three or more points in time, or under three different conditions' (Pallant 2007 p.228).

#### **5.5.3 Qualitative Method Design**

Qualitative methods were needed due to the limited knowledge about risk disclosures, especially in developing countries. Miles and Huberman (1994 p.10) state that qualitative methods are the best strategy for examining a matter in a new area, developing and testing hypotheses, and for explaining quantitative data collected from the same setting. Semi-structured interviews were the main source for qualitative data.

Interviews can give stakeholders the opportunity to provide their opinions freely, hence, can provide research with coherent and deep insights (Arksey and Knight, 1999) and detailed information about the Jordanian context (Bowling, 2002). However, Saunders et al. (2003) stated that interviews are time consuming and require lengthy discussions.

Open ended questions were based on research questions, hypotheses and prior literature. Questions were discussed with the researcher's supervisor and an external auditor in order to enhance their validity. There were a total of 21 interviews. The interviewee groups were bank risk managers, investors, external auditors, and central bank and stock market authority members. Interview questions were different for each of the interviewees. The interviews were held in Arabic.

According to Fontana & Frey (2005), interviews can be structured, semi-structured, and unstructured. Structured interviews are similar to surveys (Zhang and Wildemuth, 2009), hence; they restrict the ability of the interviewee to provide thorough description about the phenomenon. Unstructured interviews give the interviewer little control over the direction of the discussion (Zhang and Wildemuth, 2009); and because the research is focusing on specific themes and practises in risk disclosures this method is not appropriate. Therefore, semi-structured interviews were chosen for the current research. Semi-structured interviews are flexible (Bailey, 1982) and comprehensive (Bryman, 2001). Furthermore, semi-structured interviews allow unexpected facts to be examined (Sampson, 1972).

#### **5.5.3.1 Targeting Interviewees**

Directors of the banks in the sample of the study were interviewed. The Board of directors is the part of the organization responsible for corporate disclosure (Gul and Leung, 2004), and according to Soobaroyen and Mahadeo (2012) the board of directors is the most important factor in enhancing accountability. Moreover, it is found in the literature that the quality of reporting improves with the board of directors effectively monitoring the management (Elshandidy and Neri, 2015). Moreover, interviews were held with banks' risk managers, officials and consultant from the CBJ and external auditors.

The researcher contacted interviewees by email explaining the objectives of the study, questions to be asked, the time needed for the interview and how confidentiality is to be maintained.

#### **5.5.3.2 Semi Structured Interview Guide**

An interview guide is a list of questions that need to be covered, usually in a particular order, during the interview (Cohen and Crabtree, 2006). In a semi-structured interview, a list of questions is

predetermined by the researcher, but it is flexible in the way questions are ordered and how the interviewee responds to the questions (Denscombe, 2003). Hence, the semi-structured interview guide will serve as a framework for the themes and topics to be covered. The guide will include main questions to be asked as suggested by Bryman (2012).

Interview questions will be constructed around research questions, literature on corporate governance and risk disclosures and data collected in quantitative methods. This will reinforce the integration between qualitative and quantitative methods.

Questions consist of 5 themes:

- (i) Board of directors structure,
- (ii) Level of compliance with corporate governance regulations,
- (iii) Risk management and internal control systems,
- (iv) Corporate governance and risk disclosure regulations, and
- (v) Risk disclosures.

#### **5.5.3.3 Conducting Interviews**

All interviews will be one to one and face-to-face interviews; they will be conducted in the interviewee's workplace. According to McDowell (1997), 'being in the environs you are studying can also prove useful' (as quoted in Clifford, 2010). Interviews are expected to last for one hour and will be taped based on the consent of the interviewee; so the interviewer will focus on the interviewee and their reactions instead of writing notes on all of the answers provided (Clifford et al. 2010). In cases where the interviewee refuses to tape the interview, notes will be taken and used for analysis.

Interviews are expected to go as follows: the interviewer will prepare for the interview by obtaining information about the bank and the interviewee (Arksey and Knight, 1999). This information includes bank disclosures and interviewee background. The interviewer will make an introduction about the purposes and importance of the study and that the information collected is confidential. Then the interview guide will be used to make sure all the important issues and questions will be asked. Follow-up questions and probing questions will also be used (Bryman 2004). According to Bryman (2004), follow up questions are necessary to discuss new ideas and facts provided by the interviewee, while probing questions are used to clarify and gain more details when the interviewee's answer is not clear enough (Rubin and Rubin, 2005). All the questions are open-ended questions and the guide will be used flexibly according to the responses of the interviewee, so he can freely elaborate on the issues discussed (*ibid*).

Finally, the interviewer will thank the interviewees for their time and participation and will try to obtain their contact details in case further information is needed.

The interview transcripts were written by the researcher in Arabic, and to make sure the transcript represents the actual interview, the researcher has listened to the interview audio several times. The interviews were analysed in Arabic to ensure the data will not lose any of the meaning, and afterwards the results were translated into English.

Table 5.5: Distribution of Interviewees

Interviewees	No.
Risk department managers	12
Board directors	5
External auditors	2
Financial consultant	1
Regulators	2

#### 5.5.3.4 Qualitative Data Analysis

Methods for analysing the interviews include; thematic analysis, content analysis and grounded theory, and this research will use the qualitative research grounded theory approach to analyse the interview data. Qualitative research grounded theory was introduced in by Glaser and Strauss (1967, p.1) as 'the discovery of theory from data—systematically obtained and analysed in social research', and this method 'uses a systematic set of procedures to develop and inductively derive grounded theory about a phenomenon' (Strauss and Corbin, 1998, p.24).

Grounded theory seeks to create a new theory rather than testing existing theories. Glaser and Strauss (1967) argued that a theory can be developed based on the concepts and interpretations used by participants (actors) of what is going on in reality.

'If a researcher is interested in knowing what it is like to be a participant in a drug study or in knowing some of the problems inherent in adhering to a very rigid drug protocol, then he or she might sensibly engage in qualitative research' (Strauss and Corbin 1998 p.40). The authors explain the aims of the research that need to be addressed using the grounded theory approach. Grounded

theory is useful when the aim of the research is to examine participants' attitudes, feelings and perceptions towards a specific subject.

Grounded theory is widely employed in accounting literature (Page and Spira, 2004). Strauss and Corbin (1990) and Suddaby (2006) argue that researchers can use prior literature, theory or any knowledge about the research when analysing data through the grounded theory approach.

Among the limitations of the grounded theory, is that it is not statically generalizable, however, it can 'broaden the theory so that it is more generally applicable and has greater explanatory and predictive power' (Glaser & Strauss 1967, p. 24). Hence, it is generalizable in the sense of the theory.

In analysing the transcribed interviews, the author followed the steps of the qualitative research grounded theory approach presented by Corbin and Strauss (1990). The author started with theoretical sensitisation (Glaser and Strauss, 1967) through a literature review of the risk disclosures and governance. The purpose of theoretical sensitization is not to determine a coding system nor to define categories. Rather it is meant to determine the key issues related to risk disclosure practices in the Jordanian context in order to define the context of the research, and moreover, 'to analyse data, we need to use accumulated knowledge, not dispense with it' (Dey 1993, p.65).

A manual approach was employed to analyse the data. The interviews were transcribed and analysed in Arabic and the results were translated to English.

First, data is transcribed by the researcher and is read at least once (Braun and Clarke, 2006). Braun and Clarke (2006) also suggest active reading i.e., reading and searching for ideas at the same time.

The analysis began with open coding, specifically line by line coding. This step is conducted to look for codes and concepts from the raw data (Corbin and Strauss, 1990), in other words, this step identifies and labels the main ideas in the transcripts. The researcher, with determined questions and themes in mind based on the literature and theory, searched for initial codes and patterns, which were written in the text (transcriptions and researcher notes) being analysed. Transcripts and notes were read carefully to identify and highlight the keywords; each keyword was given a code and a label. Each time the keyword (concept) was identified, it was assigned the same code.

Concepts were identified based on variables of the research and on the past literature of risk disclosures and corporate governance. Large amount of concepts were identified, hence they were written down for comparison and revision, so that concepts with similar ideas were grouped together as one concept (open code). At the end of this step, the interview transcripts were reviewed again to see how the identified concepts were used by the participants to merge any

similar concepts, and delete the unnecessary concepts. Finally, concepts were put in different groups and each group has been given a label.

The next step was axial coding. This aims at discovering connections between concepts and open codes developed in the first step (Strauss and Corbin, 1998). During this step, interviewees' transcripts were reread several times using concepts developed in the previous step to make sure they represented the transcript accurately, and concepts were grouped back together to identify connections among them and how they are related (Beattie et al., 2004).

Later, to determine the core theme, selective coding was applied. This step is necessary to determine the core theme or category and relate other themes and categories to it. This is done by rereading the texts and selectively relating categories to the core category.

Open codes, categories and themes are summarized in a table in the next chapter. The table is of three columns which represent open, axial and selective coding respectively.

Finally, the theory is demonstrated in a diagram which is explained through the discussion findings in the next chapter. To make sure that the theory is grounded on the transcripts, constant comparison and reference to the transcripts was completed.

## 5.6 Conclusion

This chapter discussed the methodology which was adopted to answer the questions of the current research. The researcher follows the critical realism stance of philosophy which guides the mixed method design chosen for the research. Content analysis and interviews are the main data collection methods employed to gather data about risk disclosures in the annual reports of Jordanian banks. Multiple regression analysis and content analysis will be used to analyse quantitative and qualitative data respectively.

## Chapter 6 : Qualitative analysis

## 6.1 Introduction:

This chapter presents the main findings from the analysis of the interviews, based on the grounded theory. The stages of the grounded theory analysis are discussed in the previous chapter. Themes, categories and concepts are discussed in this chapter, and risk disclosure theory is discussed at the end of this section.

Primary data was collected through interviews; and the main purpose of these interviews was to examine the factors which affect risk disclosure practices in Jordanian banks. Interviews were conducted with different stakeholders including bank directors and managers, investors, auditors and regulators.

## 6.2 Findings

Seven main themes were found based on Interviews' analysis, themes are (i) Risk types, (ii) regulations and compliance, (iii) risk management systems, (iv) corporate governance mechanisms, (v) owners effect on the board, (vi) attitudes toward risks, (vii) determinates of risk disclosures.

### 6.2.1 Theme 1: Risk types

Table 6.1: Theme 1 (Risk types)

Concepts (open codes)	Categories	Themes
Financial risks	Risk types	
Operational risks		
Information technology risks (Cyber-attacks)		Risks facing banks in Jordan
Political		
Economic conditions		
Rate of return risk		
Non-compliance risk		
Internal risks		
Type of bank (Islamic/ Conventional)	Determination of risk types	
Complexity of operations		
Location of operation		

Interviewees recognised types of risks that are common to all banks, for example, 'credit risk', 'operational risks', 'non-compliance risks' and 'information technology risks', and interviewees also

identified risks which are specific to Jordanian banks. Participants identified that there are political influences from surrounding regions which affect the level of overall investment in the Jordanian market, for example, the war in Syria. Interviewees also identified 'economic factors in the country' as one of the main risks. Moreover, Islamic banks have their own types of risks, such as 'non-compliance with Sharia laws' and 'rate of return risk'. Finally, several interviewees discussed that risks could result from problems in risk management systems and 'insufficient planning and forecast for investments'.

Several managers stated that the level and types of risks faced by Jordanian banks depends on:

- (i) the location of operations and 'whether the bank has operations abroad'; most banks in Jordan are operating solely in the Jordanian market
- (ii) the level of complexity of operations.

They added that the financial instruments which are traded by Jordanian banks are simple and less sophisticated compared to the instruments used in other banks in the developed markets.

Accordingly, less risks and hence less risk disclosures are expected from Jordanian banks. In regards to risk, a manager stated that '*the simplicity of our bank products, and the bank's dependence on retail products (usually for government employees), are the reason why we have low levels of risks*'.

Other risks were discussed by managers and directors which are unique to the Jordanian market.

These include:

**Political risks:** the difficult political conditions in the region and the fear of terrorist attacks (ISIS for example).

One of the bank risk managers said, 'one of the special risks faced by banks in Jordan is the political situation in Syria and Iraq. Some Jordanian banks have branches over there and the Jordanian market is becoming less attractive for foreign investments'.

**Regionally limited activities:** many banks in Jordan have very limited activities overseas. Their operations are concentrated in Jordan and some Arabic countries like the Gulf countries, Libya and Algeria. Given the unrest in Jordan and the region, this increases the risk of bank failure.

### 6.2.2 Theme 2: Regulations and compliance:

Table 6.2: Theme 2 (Regulations and compliance)

Concepts (open codes)	Categories	Theme
Corporate governance code for banks Basel requirements IFRS	Risk Disclosure requirement	Regulations and compliance
Extent of compliance	Extent of compliance	
Enforcement by CBJ Enforcement by Amman Stock Exchange	Extent of enforcement	

#### Disclosure requirement

Interviewees from the Central Bank of Jordan, Amman Stock Exchange and a consultant agreed that laws which regulate the banking industry and the financial markets, such as the Banking Law and Governance Codes, are influenced by the international best practices, such as BASEL, principles established by the Organisation of Economic Cooperation and Development (OECD), and principles established by Financial Stability Board. These codes are customised to suit the peculiarities of the Jordanian market. For example, the Central Bank of Jordan has adopted Basel requirements for increasing capital requirements, but the Central Bank of Jordan requires higher ratios from Jordanian banks considering the high level of risks due to the difficult economic conditions and the uncertainties in the region.

Interviewees emphasised the importance of adopting the best international practises in order to increase confidence in the Jordanian economy and attract foreign investments. A consultant from the Central Bank of Jordan explained, '*countries that refuse to comply with the international practices and regulations will find themselves out of the global swarm. In Jordan we need to comply in order to be recognised in the global market and more importantly to attract foreign investments*'.

Moreover, the interviewees discussed that international organizations (such as the World Trade Organization (WTO), the International Organization of Securities Commissions IOSCO and the International Monetary Fund IMF) require the adoption of and compliance with international standards and principles, in order to accept countries as members.

The role of the requirements of the Central bank of Jordan (CBJ), IFRS and Basel were mentioned many times during each interview regarding risk disclosure determinants, corporate governance and maintaining a good risk management system. For example a risk manager stated '*usually banks will not disclose beyond what they are required to disclose*'.

### **Extent of compliance**

Interviewees explained that the banks are complying with corporate governance principles because they are required to by the CBJ. However, the extent of governance codes affects how much governance is instilled, as a culture depends on the orientation of the board of directors. Some boards are controlled by the main owner, who sets the strategies of the bank and controls the board, which some interviewees refer to as the 'one man show'. On the other hand, larger banks with subsidiaries abroad are more concerned with governance, and some have been applying the principles before the code. Hence, governance codes affect the former type of bank more than the latter.

A director made the following statement following the introduction of a new code in 2014: 'in my opinion, banks in Jordan are complying with governance principles up to 80% in an institutional manner'.

### **Extent of enforcement**

When asked about why they implement corporate governance, a manager replied '*.... CBJ enforcement efforts and how much it emphasizes on compliance with CG rules*'.

All interviews emphasized the strict role of CBJ and how it continuously improves CG requirements. A consultant discussed that; '*The CBJ is totally independent and disassociated with the government, and this independence has been emphasised since 1989, when Jordan had its first financial crisis. The government was unable to pay its loans, unemployment ratios rose up to 30-35%, and there was a decline in the value of Dinar. Since then the government gave the CBJ total independence to monitor the physical policy*'.

Moreover, the CBJ determines a list of external auditors each year for banks to choose from. This list usually includes the Big Four audit firms, however, according to the law, there is no specific licence to audit banks. It is worth mentioning that until September 30<sup>th</sup> 2014, there was no rotation requirement. With the new corporate governance code for banks issued on September 30<sup>th</sup> 2014, banks are now required to change the external auditor every seven years.

### 6.2.3 Theme 3: Risk management systems

Table 6.3: Theme 3 (Risk management system)

Concepts (open codes)	Categories	Themes
Parties responsible for Risk management	Risk management committee Risk management department Internal audit	Risk management system
Problems with risk management systems	Shrinkage in risk experienced personnel Young risk management systems	
Risk management system and risk disclosure	Preparation of risk information	

#### Who is responsible for risk management?

The risk managers who were interviewed explained the role of the risk management departments in applying risk management strategies and preparing risk management disclosures. The risk management committee set the risk management strategy and the risk appetite for the bank, and reviews the implementation of the strategies. The risk management department sets risk management policies, procedures and framework, and distributes responsibilities regarding risk management; when such policies are then circulated among the personnel.

Risk management begins with every division applying appropriate controls over their daily operations, under the control and monitoring of the risk management department. Moreover, this department is responsible for training employees on risk assessment and risk control. Finally, comes the role of the internal audit, which performs a compliance test to ensure that controls are adequate and that they are working as expected.

Several risk managers emphasised the importance of risk self-assessment, whereby employees can report to the management any weaknesses and violations anonymously. In some banks there is a special division to receive events and incidents reported by employees.

#### Inadequacies in risk management system

One point identified by several risk managers is the need for more specialised and trained employees in the risk management department. One manager explained: '*with the increase of risks faced by banks and the increase of regulations and standards we need to comply with we need*

*employee who are specialized in risk and risk management for example employees who have certificates in risk management'.*

Another problem is that risk management departments are still young, hence they do not have large databases of risk information. Databases are important to record significant information about the risks faced by banks, for example; risk nature, priority and likelihood, and mitigation techniques.

### **Preparation of risk disclosures**

Risk information included in the annual report is prepared by the risk management department and is mainly prepared according to the IFRS, specifically IFRS7. However, risk managers discussed that the absence of the pillar 3 of Basel 2 leads to less disclosures about risk and risk management.

A risk manager explained, '*until now, banks in Jordan are not required to comply with Basel pillar 3, sufficing with IFRS 7. Basel Pillar 3 is more detailed and more focused on risk information*'.

#### **6.2.4 Theme 4: Corporate governance mechanisms**

Table 6.4: Theme 4 (Corporate governance mechanisms)

Concepts (open codes)	Categories	Themes
Audit committee Ownership structure Features of the BOD Risk management system	Internal mechanisms	Governance mechanisms
External auditor Regulations Competition	External mechanisms	

According to the risk managers who were interviewed, the focus on risk disclosures and risk management began with the application of corporate governance mechanisms that were imposed by the Central Bank of Jordan. Prior to that, a manager states that; '*we had a risk management department of only three employees and it was limited to only credit analysis before the CBJ required us to comply with governance rules*'. Another manager describes that, '*we did not have a department for risk management several years ago*'.

The Central bank of Jordan began to emphasise the importance of risk management in the Corporate Governance Code for Banks in 2004, however, the code was merely a guidance and not compulsory. It was several years until the CBJ made the code compulsory, in 2014. According to the interviewees, corporate governance mechanisms have improved and risk management practices have changed as well.

However, not all governance mechanisms were addressed by the managers interviewed. Managers stated that the following factors' increase and enhance risk disclosures:

- (i) Ownership structure (International and institutional)
- (ii) Independent directors
- (iii) Audit committee
- (iv) Risk management system
- (v) External auditor, which the bank chooses from a list determined by the CBJ.

Although managers expressed the importance of CG mechanisms in identifying, managing and reducing risks, they discussed that it ensures the compliance with rules about risk disclosures more than the disclosures of voluntary information. However, a manager said, '*it is likely that the firm which has a good management system will try to inform stakeholders about it and that the bank is managing risks effectively by trying to gain their trusts*', insinuating that voluntary disclosures will be made when they will be seen to affect the firm positively.

#### 6.2.5 Theme 5: Owners effect on the board

Table 6.5: Theme 5 (Owners effect on the board)

Concepts (open codes)	Categories	Theme
Type of owners	Foreign investors Blockholders Social security Corporation	Effect of shareholders on the board
Owners effect on the board	Impotent effect	

#### Types of owners

Several interviewees discussed that foreign investments (non-Arab) are generally low. They ascribed this to the intuitional framework in Jordan. Although regulations to attract investors are in place, the institutions of the country are not yet ready to reduce bureaucracy and facilitate their

transactions. Moreover the political and economic conditions are not in the favour of the Jordanian market. Hence the effect of this type of shareholders is small (if any).

Most of the block-holders are non-Jordanian institutions, however they come from Arab countries where they have a similar culture and similar governance practices. One of the block-holders is the Social Security Corporation, which has shares in most of the Jordanian banks.

The Social Security Corporation through its Social Security Investment Fund have many ways to affect the board other than its stake of shares, for example, joint investments, loans, and direct investments between the corporation and the bank. A previous director stated, 'the corporation has many ways to affect the decisions of the board, imagine if the Corporation decided to stop transferring pension salaries, which are in the millions, to that bank'. Moreover, the director appointed by the corporation must refer to a higher authority when it comes to important decisions. However, interviewees from the Social Security Corporation and a previous director, discussed that the corporation would be more likely to interfere for serious issues than for disclosure issues. The Social Security Corporation has a director in the audit committee most of the time, and they state that if the board discusses disclosures, the main objective will be to comply with all the regulations and laws.

The corporation has a mutual interest with the banks, an official stated that, 'you should note that we have mutual interests with the bank, for example we care about the share price of the bank hence, we try to hold the stick from the middle'.

According to Cornett et al. (2007), institutional investors' cooperation with management is likely when there is a business relationship, and contradicts the agency theory which predicts that institutional investors will work as a monitoring mechanism over management (Chen et al., 2007).

### **Effect on the board**

Interviewees agreed that for shareholders to be able to affect the decisions of the board, they should have the majority of the shares, hence they can use their voting powers. Arabic institutions, mainly from Gulf countries, have large shares in many of the Jordanian banks, and have many representatives on the board, thus, they have the ability to affect the decisions of the board.

According to the interviewees, individual investors and foreigners do not have the ability to affect the board. When it comes to small investors, according to the interviewees, they have minimal information about accounting and finance. Some interviewees argued that foreign members (not shareholders), can affect the board by their experiences and backgrounds.

### 6.2.6 Theme 6: Attitudes toward risks

Table 6.6: Theme 6 (Attitudes toward risks)

Concepts (open codes)	Categories	Theme
Awareness of managers on the importance of risk disclosures	Management quality	Attitudes toward risk
Awareness and education of stakeholders	External environment	

Managers recognised the importance of CG and risk management, however, several interviewees addressed the fact that corporate governance and risk management is still new to the Jordanian market and more education and awareness is needed. A consultant said that, '*we need to consider the fact that risk management concepts have been introduced recently in Jordan, hence we need not to expect much disclosures or much demand for disclosures from users. It is the Central Bank of Jordan that is putting much effort to make sure banks are complying with the applicable rules and I can say its efforts have paid off.*

While the interviewed managers showed a great enthusiasm regarding corporate governance, they were explicit in stating that they would only disclose risk information as long as it is required by law. They discuss that:

- (i) The market is not yet ready for this type of disclosure, as most investors are not well educated about risk and risk management
- (ii) There is a fear that the information may be used by other banks, and
- (iii) The CBJ knows best what needs to be disclosed and what the market needs, hence the rules are adequate.

Moreover, the users' attitude is one reason why voluntary disclosures are limited, meaning that many users in the Jordanian market have limited knowledge and awareness about risk and risk management, which results in less demand for information about risks.

A manager states, '*the majority of our stakeholders are not qualified and some are not well educated, hence, more risk disclosures might be misunderstood*'.

### 6.2.7 Theme 7: determinates of risk disclosures:

Table 6.7: Theme 7 (Determinants of risk disclosures)

Concepts (open codes)	Categories	Themes
Disclosures costs Culture Novelty of CG and risk management CG mechanisms (mentioned above)	Voluntary Disclosures	Determinants of risk disclosures
Branches in other countries CG mechanisms Rules and regulations	Mandatory disclosures	

Determinates that appeared in the interviews are:

**1. Disclosure costs: risks and earnings forecasts need time and effort.**

A manager describes: '*if a specific disclosure is not required by regulations, managers will not make the effort to produce estimates and forecasts for the purposes of voluntary disclosures*'.

A director states that: '*preparing disclosures required by the law takes months, if we disclose more information that will take more time*'.

Moreover, according to interviewees, banks do not reap benefits from disclosing voluntary information for two reasons. Firstly, the most important investors are on the board and they do not need public information, and secondly, users of the annual reports are limited. This is because in the Jordanian market, the work of financial analysts is limited and annual reports are not followed by these analysts. As a result the costs of disclosures outweigh the associated benefits.

This is consistent with the propriety cost theory, which discusses that companies refrain or limit the disclosures of voluntary information because of the associated proprietary costs. These costs include which the preparing of and distribution of information (Hayes and Lundholm, 1996).

**2. Rules and regulations.** According to interviewees, The Central Bank of Jordan is very restricted and some of them discussed that the CBJ requires banks to disclose information through specific forms and templates. The standards based approach by the CBJ could be a reason for management to choose not to disclose voluntary information.

In addition, until now, pillar 3 of Basel is not a requirement of the Central Bank of Jordan, which states that banks must disclose information regarding risk management and risk measurement. Instead, banks are required to comply with IFRS 7. According to a risk manager, applying pillar 3 will result in more mandatory disclosures, since Basel regulations cover all of a bank's activities, and aims to establish a risk based approach towards the management of a bank's operations.

Finally, there is a consensus among interviewees, including auditors, that the regulations and laws of the CBJ are enough and appropriate for the Jordanian market. A consultant commented that '*the level of disclosures you see in the annual reports reflects harmony between the management and the CBJ*'.

3. **Branches in other countries.** Firms with operations in more than one country need to comply with more requirements.
4. **Competition.** Mainly, competitors were mentioned by managers as reason against disclosing risk information, because of the fear that competitors will use that risk information provided by the banks. Moreover, the management is afraid that competitors may use any problems or mistakes in the annual report to attack the bank and distort its 'image'.
5. **The Bank's reputation.** This can have two directions. Firstly, banks comply with whichever laws are applicable to them in order to avoid being accused of non-compliance. Secondly, banks do not disclose information voluntarily, fearing that it will affect the bank negatively and thus result in a loss of customers.

Interviewees focused on the fear of disclosing sensitive information which could affect the bank's reputation and result in legal liabilities.

A manager stated, '*do you think, if the bank discloses any mistaken information, the reader would assume it is a mistake? Probably, it will be understood as an attempt to manipulate share prices and this will negatively affect the bank's reputation. In best scenarios, it will be an indication of weaknesses in internal controls*'.

An auditor discussed that, '*when you are talking about the banking industry, any piece of information regardless of how small it is has the ability to affect the reputation of the bank, for example, information about the default of a bank's major customer*'.

6. **Novelty of CG and risk management.** CG, risk management, and risk disclosures are quite new to banks and stakeholders in Jordan. Even the CBJ has its own risk management department since 2014. Hence, many users and even managers are still not aware of their importance.

The novelty of risk management systems and the shortage of risk databases is one of the reasons why banks only disclose what is required, as one manager explained; '*since we do not have adequate risk databases as risk management issues are relatively new, the bank will not disclose information that is uncertain unless it is required by law. If the information was proven wrong the bank image will be distorted and we may face fines and legal cases*'.

7. **Risk management system.** The Risk committee is responsible for determining risk appetite and risk strategies, and is approved by the BOD. Risk management plans and reports are prepared by the risk management department. One of the directors stated that; '*the risk manager is independent and has many authorities, the department reports directly to the risk management committee, also the bank supported the culture of risk self-assessment and it has employees for receiving any negative events or problems*'.

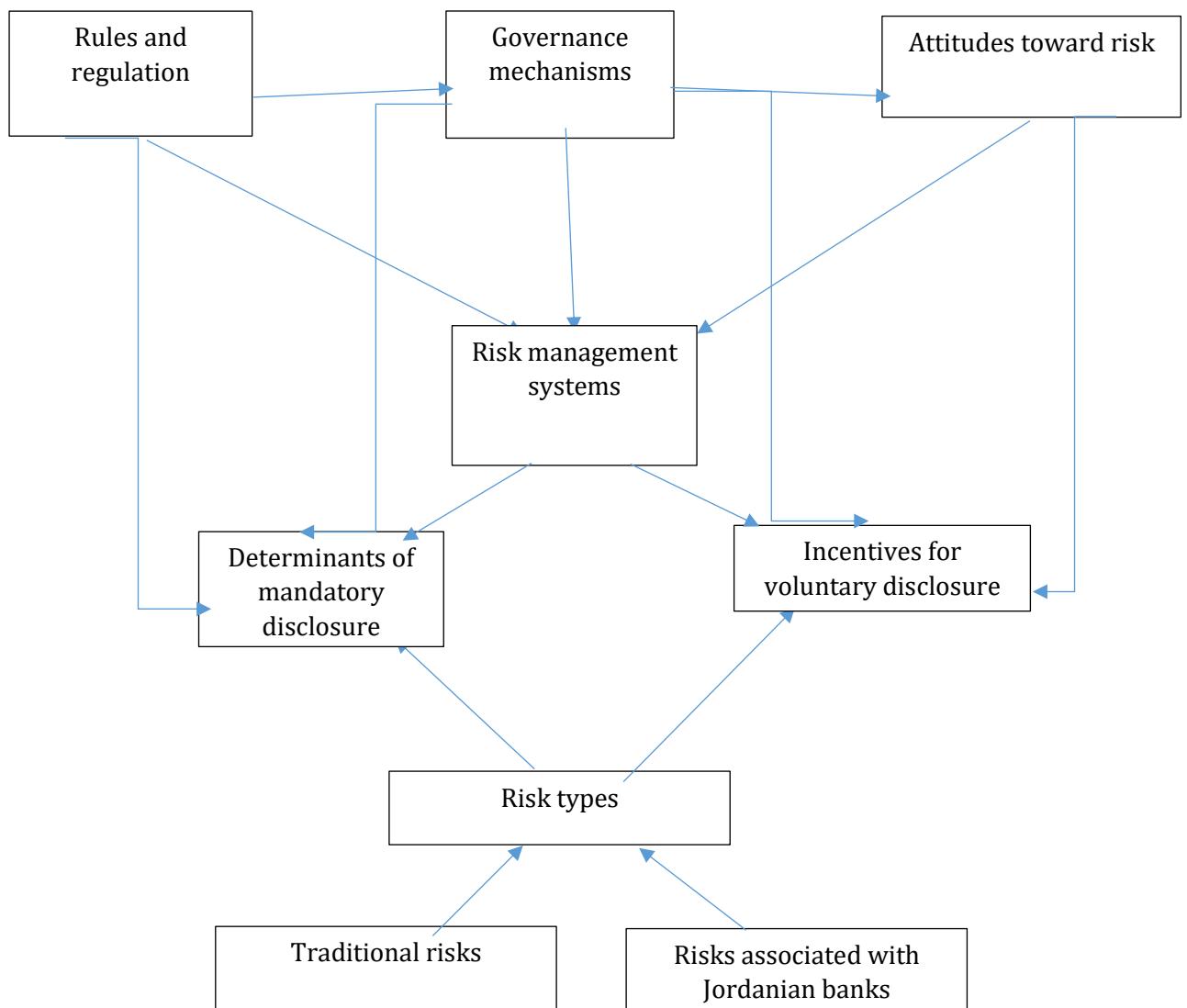


Figure 6.1: Risk Disclosure theory

### 6.3 Risk disclosure theory

Risk disclosures are based mainly on mandatory requirements, for example, The Companies Law (1997), IFRS and the Corporate Governance Code for banks. Rules and regulations affect both corporate governance mechanisms and mandatory risk disclosures, in turn, governance mechanisms affect the level of both mandatory and voluntary risk disclosures. There is scope for improvement in risk disclosure practice. The core category is risk disclosure.

The theory includes seven main themes. Theme one is about risks faced by the banks. The interviewees said there are various risks facing banks, some are special to banks and others are special to the Jordanian context. The interviewees stated that risk management systems in place are effective and have been proved to detect and mitigate risks.

Theme two explained the mandatory requirements of risk disclosure, the interviewees emphasised that mandatory disclosures are of more importance and that there is less scope for voluntary disclosures. They discussed that the regulations are adequate and cover all the important disclosures about risk. Moreover, interviewees explained that the costs and effort needed to disclose risk information is the reason why banks refrain from disclosing voluntary disclosures.

The interviewees agreed that there is general support for regulatory involvement in Jordan. The main regulator for banks is the Central Bank of Jordan and requirements for risk disclosure are (IFRS) and the Corporate Governance Code for banks.

#### **Theme three: Risk management systems**

Overall there was an agreement on the need to improve risk management practices through the recruiting personnel specialised in risk assessment and management. However, managers ascribe the shortcomings in the system are to the young age of the risk management department and the whole issue of risk management matters.

The interviewees, mainly directors and risk managers, emphasised the role of the risk management department and the committee of risk information in the annual reports. The risk management department prepares the information and reports it to the risk committee. However, the information is prepared based on rules and regulations.

#### **Theme four: Corporate governance mechanisms**

Firstly, there is a demand for stricter corporate governance mechanisms and regulations. Interviewees agreed on the benefits of good corporate governance and that it is important to monitor management and the BOD; especially because most banks in Jordan are family owned and

the owner has a great impact on the firm. The interviewees also discussed the effect of corporate governance mechanisms and risk disclosures. These mechanisms are: the audit committee, directors with experience, ownership structure, the risk management system, and the internal control system.

#### **Theme five: Owner's effect on the board**

The interviewees agreed that the impact of institutions, individuals and foreigners (non-Arab), is almost absent unless these parties have a voting power. Moreover, many interviewees discussed that the owner's focus will more likely be placed elsewhere, as there are more serious issues than disclosure issues which are mainly determined by rules and regulations anyway.

#### **Theme six: Attitudes toward risk disclosures**

Risk disclosures are the responsibility of bank management and the BOD. Hence, experiences and education of the directors and the management are important to enhance risk disclosure practices. Attitudes of external users of financial statements are also important, and this depends on their education and awareness. However, there is a lack of knowledge and awareness regarding risk disclosure among users.

#### **Theme seven: Determinants of risk disclosures**

Several determinants appeared in the interviewees' transcripts, including; disclosure costs, international customers and investors, branches in other countries, awareness among users, competition and the novelty of corporate governance.

## Chapter 7 : Quantitative analysis

## 7.1 Introduction

This section presents the analysis of the quantitative data. The chapter includes two main sections: content analysis results and regression analysis results. The first section presents the results of the content analysis and describes trends in risk disclosures and the results for each risk category. The second section provides the results of the regression analysis. It provides data description, univariate analysis results and multivariate analysis results.

## 7.2 Content analysis descriptive results

All banks, in their annual reports, provided risk disclosures that included disclosures about banks' policies regarding risk management and disclosures about exposures to different types of risks (e.g. credit and liquidity risks). The following section provides the results of the descriptive statistics of content analysis results. Examples of risk disclosures can be found in appendix C.

Table 7.1: Descriptive statistics of risk disclosures in each risk category, in all years and in all banks

No.	Risk Category	Total	Mean	Min	Max
	<b>Total risk disclosures</b>	51,887	345.91	220	435
1	<b>Financial risks</b>	32,918	219.45	139	311
2	<b>Operation risk</b>	2,337	15.58	5	43
3	<b>Empowerment risk</b>	872	5.81	0	12
4	<b>Technology risk</b>	577	3.85	1	13
5	<b>Integrity risk</b>	9,561	63.74	28	104
6	<b>Strategic risk</b>	746	4.97	0	16
7	<b>Political/ economic risk</b>	2145	14.09	2	41
8	<b>Regulation risk</b>	2758	18.35	9	35
9	<b>Quantitative risks</b>	26,067	173.78	107	226
10	<b>Qualitative risks</b>	25,820	172.13	102	224
12	<b>Future disclosures</b>	16,263	108.42	57	138

<b>13</b>	<b>Past disclosures</b>	17,070	113.8	65	175
<b>14</b>	<b>Non-time disclosures</b>	18,554	123.69	69	174
<b>15</b>	<b>Good news</b>	16,959	113.06	71	168
<b>16</b>	<b>Bad news</b>	9,185	61.23	29	78
<b>17</b>	<b>Neutral news</b>	25,743	171.62	83	233

There is a specific section for risk management policies and financial risks in the annual reports of the listed banks, however, risk disclosures were found throughout the whole annual report, from the chairman message to the notes of financial statements.

There is an increase in the number of total risk disclosures disclosed in the annual reports of the Jordanian banks for the period (2007-2016); on average banks provided 297, 332, 343, 344, 353, 353, 358, 360, 363 and 377 sentences in 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015 and 2016 respectively, with an average of 348 sentences for all the years. The results showed that financial risks are the most disclosed out of all types of disclosures, followed by integrity risks; which includes risks about corporate governance and risk management.

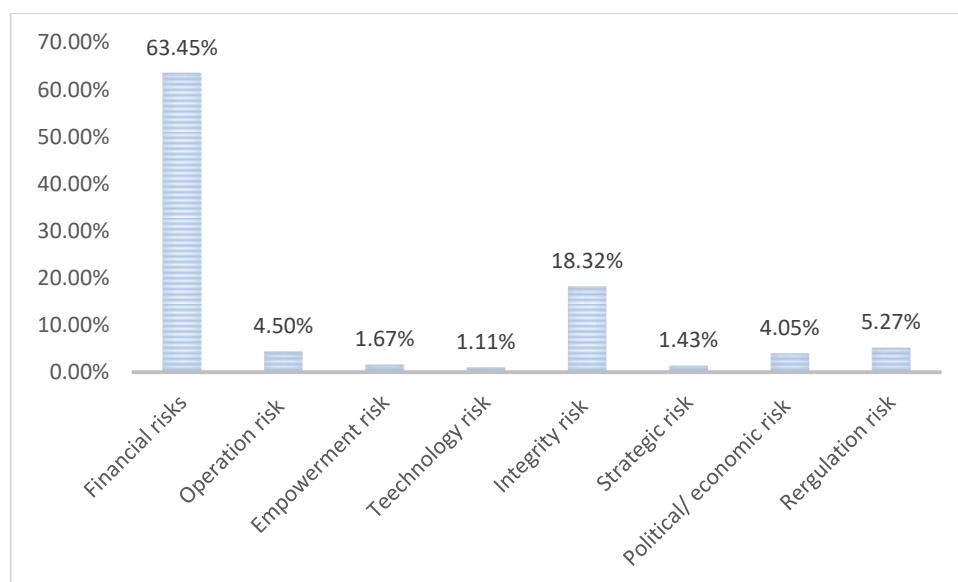


Figure 7.1: Percentages of risk categories

The percentages of each category of disclosure over the period examined are shown in Figure 7.1. The most frequently disclosed risks were financial risks (63.57%), followed by integrity risks; 18.32% of disclosures. The least frequently disclosed risks were technology risks (1.11%).

The following risks showed an increase over the examined period; financial, operational, technological, empowerment and integrity. Other risk categories fluctuated over the examined period.

The two codes with the greatest numbers of disclosures are qualitative/neutral/non-time (these include qualitative descriptions of risk exposures and risk management policies), and quantitative/positive/past (these include quantitative positive information about exposures to credit, market and liquidity risks).

#### 7.2.1 Number of Risk Disclosures in all Categories

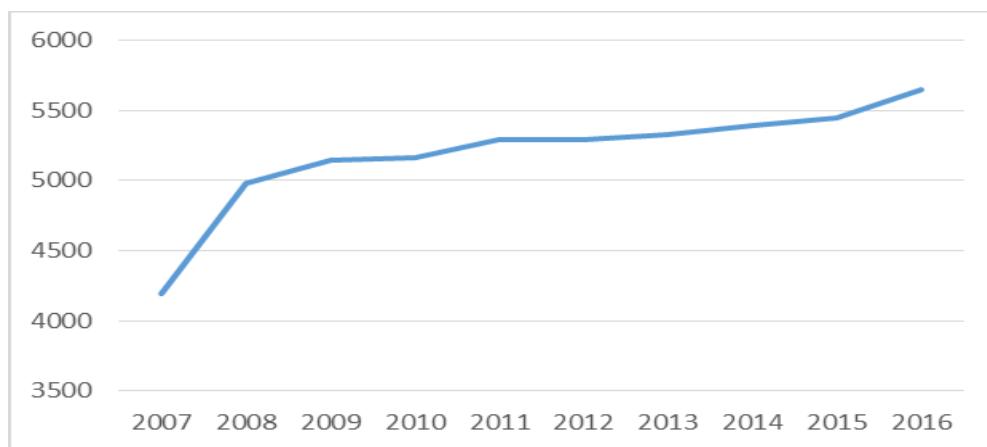


Figure 7.2: Risk disclosures in all categories in all banks by year

Figure 7.2 shows the trend of risk disclosures measured by the number of sentences disclosed over the period of 2007 to 2016, for all risk categories in the annual reports of all the banks. The number of risk disclosures has increased over time from 4,191 sentences in 2007 to 5651 sentences in 2016.

#### Risk Disclosures by Category

The most frequently disclosed risks were financial risks, which constituted about 64% of the total risk disclosures. This is consistent with the findings of Kongprajya(2010), Linsley and Shrives (2005), Linsley and Shrives (2006) and Lajili and Zeghal (2005), where financial risks were the most frequently disclosed risks.

One explanation for these results is that listed banks in Jordan are forced to comply with IFRSs, which focus on financial risks (financial instruments, credit risk, liquidity risk, market risk, interest rate risk and hedging information). Moreover, this result confirms the results of qualitative analysis regarding the great influence of disclosure requirements on disclosure practices by Jordanian banks.

## Financial Risks

The most frequently disclosed risks were financial risks. The total number of financial risk disclosures constantly increased over the period examined as shown in figure 7.3.



Figure 7.3: Financial risks in all banks by year

Financial risk disclosures were greater than all of the other disclosures in every year examined, this is consistent with Beretta and Bozzolan (2004). However, it is not consistent with Linsley and Shrvies (2006), where non-financial risk disclosure was more frequent than financial risk disclosure.

This result is expected because the sample under study is banks. Moreover, banks need to comply with IFRS7 which focuses on financial risks (credit risk, liquidity risk, market risk). This confirms the results of the qualitative analysis, which suggested that the main driver for disclosures is regulations.

Moreover, financial risk disclosures have increased over the examined period and in a similar trend to that of total risk disclosures. Which could be explained by the dominance of financial risk disclosures over other types (63.45%).

The Wilcoxon Signed Rank test was applied to financial risks and nonfinancial risks disclosures in all years. The results are presented in Table 7.2 and show that the number of financial risks is significantly greater than the number of non-financial risks.

Table 7.2: Wilcoxon signed rank test results

		N	Mean Rank	Sum of Ranks		
Non.financial – Financial	Negative Ranks	150 <sup>a</sup>	75.50	11325.00		
	Positive Ranks	0 <sup>b</sup>	.00	.00		
	Ties	0 <sup>c</sup>				
	Total	150				
Qualitative – Quantitative	Negative Ranks	81 <sup>d</sup>	70.82	5736.50		
	Positive Ranks	65 <sup>e</sup>	76.84	4994.50		
	Ties	4 <sup>f</sup>				
	Total	150				
Past - Non.time	Negative Ranks	101 <sup>g</sup>	79.65	8044.50		
	Positive Ranks	48 <sup>h</sup>	65.22	3130.50		
	Ties	1 <sup>i</sup>				
	Total	150				
Past – Future	Negative Ranks	58 <sup>j</sup>	74.77	4336.50		
	Positive Ranks	92 <sup>k</sup>	75.96	6988.50		
	Ties	0 <sup>l</sup>				
	Total	150				
Good – Neutral	Negative Ranks	149 <sup>m</sup>	75.91	11311.00		
	Positive Ranks	1 <sup>n</sup>	14.00	14.00		
	Ties	0 <sup>o</sup>				
	Total	150				
Bad – Good	Negative Ranks	150 <sup>p</sup>	75.50	11325.00		
	Positive Ranks	0 <sup>q</sup>	.00	.00		
	Ties	0 <sup>r</sup>				
	Total	150				
	Non.financial - Financial	Qualitative - Quantitative	Past - Non.time	Past – Future	Good - Neutral	Bad - Good
Z	-10.625 <sup>b</sup>	-.725 <sup>b</sup>	-4.657 <sup>b</sup>	-2.488 <sup>c</sup>	-10.598 <sup>b</sup>	-10.625 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000	.469	.000	.013	.000	.000

## Non-Financial Risks

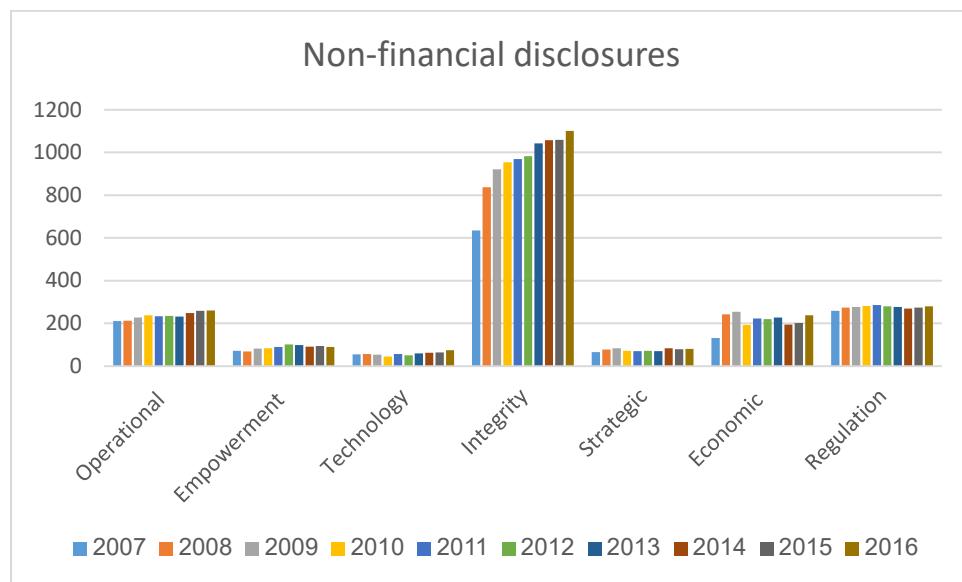


Figure 7.4: Non financial disclosures over the period of the study

Figure 7.4 shows that the number of risk disclosures for operational and integrity disclosures increased over the period. However, the levels of other types of disclosures have fluctuated over the period. One interesting result is the level of the economic disclosures, over the period examined. Economic and political risk disclosures increased immensely in year 2008 and 2009 and afterwards returned to decreasing, which could be explained by the credit crisis; where banks disclosed more information about the crisis' effects on their operations in 2008 and 2009. This movement in economic risk disclosures over the period is shown in figure 7.5

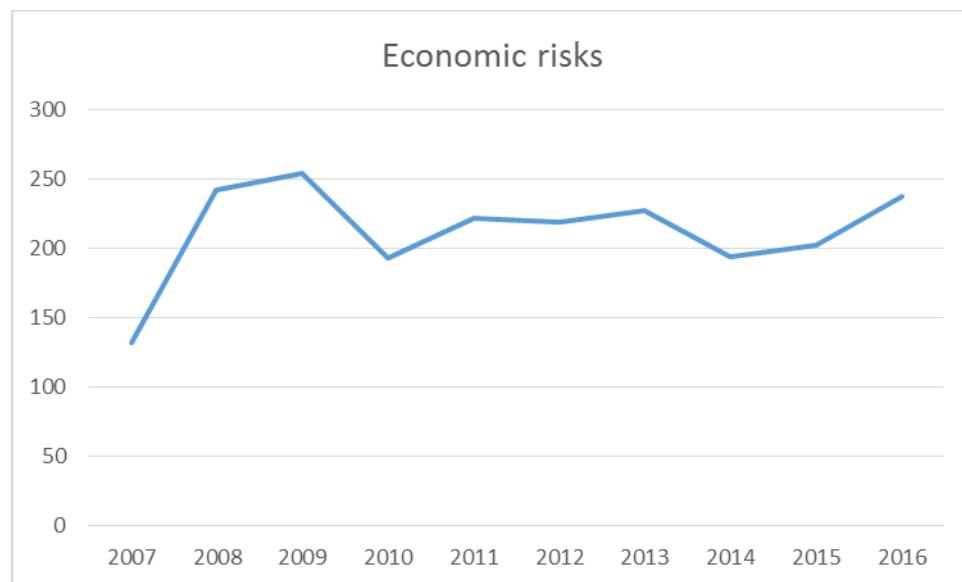


Figure 7.5: Change in economic risk disclosures over the years (2007-2016)

## **Qualitative and Quantitative Information**

The values for quantitative and qualitative risk disclosures were 50.24% and 49.76% respectively. There were slight differences. Therefore, the Wilcoxon Signed Rank Test was applied as shown in table 7.2 and it shows that the differences in the number of quantitative and qualitative disclosures is insignificant.

The explanation of the result can be attributed to two reasons. Firstly, compliance with IFRS 7 requires banks to disclose quantitative information about their financial risks in addition to some qualitative descriptions about risk exposures, and secondly, banks are required to disclose their corporate governance codes in their annual reports which includes only qualitative disclosures about risk management and internal controls. Hence, banks in Jordan are required to disclose both kinds of information in their annual reports.

This is inconsistent with most of the literature (Rajab and Schachler, 2009; Linsley and Shives, 2006; Beretta and Bozzolan, 2004).

## **Timeframe of Disclosures**

The percentage of future, past and non-time disclosures to total disclosures were 31.34%, 32.90%, and 35.76% respectively. The change in each type of disclosure is shown in figure 7.6.

The number of non-time disclosures was greater than past and future disclosures. This is mainly due to the high number of disclosures about risk, risk management, internal control and governance policies in the annual reports of the Jordanian banks. As mentioned above banks in Jordan have to disclose their corporate governance codes in their annual reports. This is consistent with Linsley and Shives (2006) and Rajab and Schachler (2009), who reported that non-time disclosures is the highest amongst the three groups.

The Wilcoxon Signed Rank Test was applied to determine which of the time-frame news is the greatest. The results of the test are in Table 7.2. The results show that the amount of non-time disclosures is significantly greater than past disclosures. In addition, past disclosures are significantly greater than future disclosures. The results are consistent with of Konishi and Ali (2007), who reported that future disclosures is less than past information.

Hence, the results indicate that banks provide less future disclosures, which are considered more useful for decision making purposes.

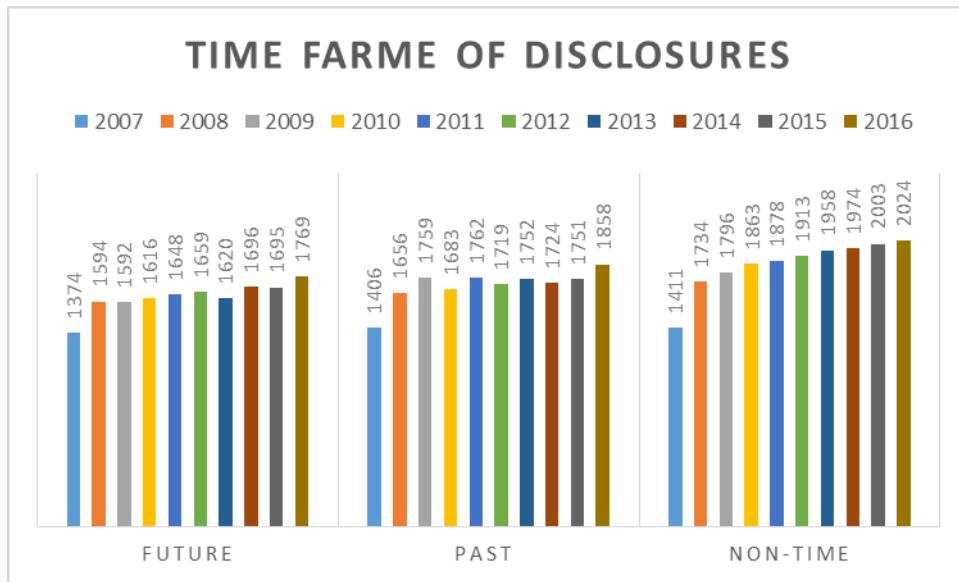


Figure 7.6: Change in the time-frame of risk disclosures over time

#### Sign of Disclosures

According to the results, the majority of risk disclosures were neutral with a percentage of 49.61%, followed by good news at 32.68%, and finally bad news at 17.70%. This is consistent with Linsley and Shrives (2006), who found that neutral disclosures are greater than bad and good news. They explained in the results that most of the disclosures were general statements about risk strategies and policies. Konishi & Ali (2007) explain that a greater amount of neutral disclosures acts as an indicator of boilerplate information.

The Wilcoxon Signed Rank Test was applied to determine whether good news, bad news or neutral news is the greatest. The results show that neutral news is significantly greater than good news, and good news is significantly greater than bad news.

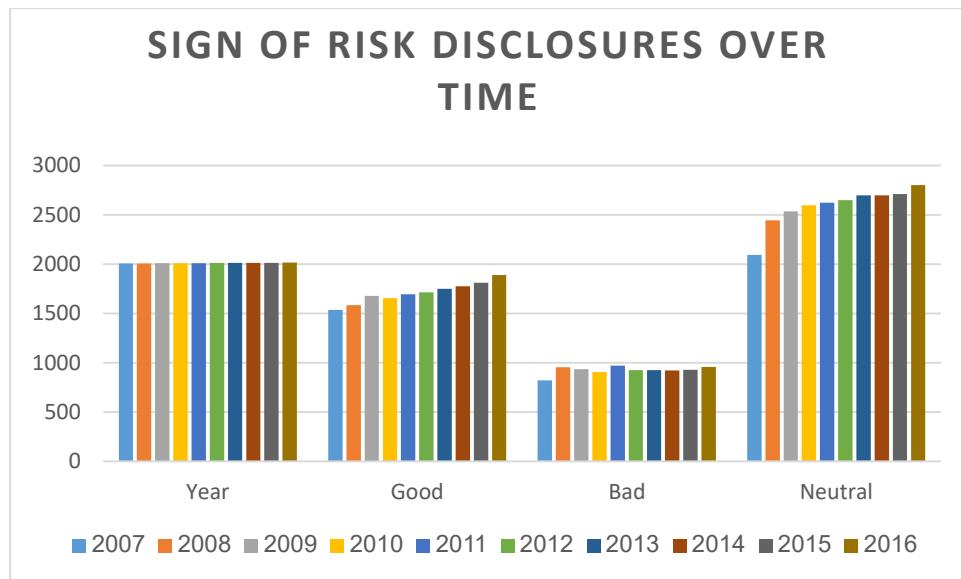


Figure 7.7: Change in sign of risk disclosures over time

As appears in the above figure, neutral and positive disclosures have increased over the period of the study. However, bad news increased dramatically in 2008 and stayed at the same levels for the rest of the period. This could be attributed to the global financial crisis, during which risks have increased and bad conditions prevailed.

### 7.3 Descriptive Statistics of Independent Variables

This section represents descriptive statistics for the independent variables. Education and experience of the board, and block holders ownership showed an increase through the examined period, where other variables such as the independence of the board, board meeting frequency and size of the board showed a fluctuation over the period examined. Managerial ownership has declined.

Table 7.3:Descriptive statistics of independent variables

Variables	N	Minimum	Maximum	Mean	Mode	Standard deviation
Total risk disclosures	150	220	435	345.91	381	44.39
Depth _ Quantitative	150	3.58	4.80	4.48	4.596	0.16

Depth _ Qualitative	150	1.09	3.61	2.85	2.89	0.47
Coverage %	150	20.48	33.84	27.93	30.29	3.59
Board size	150	7	13	10.81	11	1.485
Board independence %	150	0	84.62	36.77	36.36	15.71
Board education %	150	20	100	59.51	54.55	14.798
Board Experience %	150	12.5	90	49.76	54.55	17.34
No. of directorship %	150	0	90.9	35	18	16.82
Board meeting frequency	150	4	19	7.58	6	2.229
Foreigners on board %	150	0	83.3	31.3	27.27	19.3
Audit committee size	150	3	7	3.52	3	0.865
Audit committee meeting frequency	150	2	21	5.83	5	3.23
Audit committee independence %	150	0	100	50.81	66.67	23.2082
Risk committee size	150	2	8	4.1	3	1.311266
Risk committee meeting frequency	150	0	7	3.5	4	1.58
Risk committee experience %	150	20	100	59.9	33.3	24.5
Risk committee independence %	150	0	100	40.3	66.67	21.25
Managerial ownership%	150	0	41.01	8.33	2.7	10.36

Block holder ownership%	150	30.88	88.94	61.49	49.76	19.3
Institutional ownership%	150	19	92.56	52.35	32.27	25.53
Family ownership %	150	0	36	8.88	0	11.53
Foreign ownership %	150	0	88.31	38.56	0	28.6
categorical independent variables						
	N	Category (0)	Category (1)	Mean	SD	
Board duality	150	19	131	0.8733 %	0.333	
Audit committee experience	150	6	144	96%	0.196	
Control variables						
Total assets (log)	150	18.55	24.66	21.31	19.78	1.18
Bank age	150	16	86	39.033 years	34	16.98 526
ROA%	150	0.05	6.73	1.43	1.4	0.74
ROE%	150	0.32	30.20	10.09	10.2	5.08

#### 7.4 Univariate analysis:

Table 7.4 provides a summary of univariate analysis including Pearson Correlation Coefficients and Spearman's Rank Order Correlation between total risk disclosure (dependent variable) and other independent variables. It should be noted that univariate analysis results do not take into consideration the effect of the other independent variables on the equation.

Table 7.4: Univariate analysis results:

	Variables	Correlation (Pearson)	Correlation (Spearman)
Characteristics of the board	Size	0.184*	0.216**
	Foreign members	0.254**	0.217**
	Independence	0.232**	0.060
	CEO duality	-.200*	-.279**
	Educational level	-0.077	-0.124
	Experience	0.371**	0.413**
	Meeting frequency	-0.232**	-0.156
	No. of directorships	0.353**	0.245**
Characteristics of the audit committee	Size	0.127	.069
	Experience	0.191*	0.171*
	Independence	0.260**	0.055
Characteristics of risk committee	Size	-.076	-0.065
	Experience	.255**	.256**
	Independence	-0.233**	-0.252**
Ownership Structure	Managerial	-0.049	-0.234**
	Blockholders	-.162*	-.176*
	Foreigners	-0.148	0.054
	Family	-0.192*	-.238**

Univariate analysis indicates that characteristics of the board are associated with risk disclosure, since the majority of variables are significant. There is a positive relationship between risk disclosures and Board size, number of foreign members on the board, independence, experience and number of directorships. CEO duality and meeting frequency are negatively associated with risk disclosures. However, educational level showed insignificant correlation.

Characteristics of the board's committees showed mixed results. The size of audit committee and risk committee resulted in insignificant association with risk disclosures. Whereas, the experience of both committees and audit committee independence have a positive association with risk disclosures. The influence of independent directors on risk committee appears to be negatively associated with the level of disclosures.

Family and block-holders ownership appeared to be negatively associated with risk disclosures. Managerial ownership showed the same influence, however it was significant when Spearman's

correlation was applied. The level of foreign ownership was insignificant when Pearson correlation and Spearman's correlation were applied.

## 7.5 Multivariate analysis

### 7.5.1 Normality tests:

Normality of data was checked statistically by the Skewness test and the Kurtosis test., It was also checked visually by a histogram, the tests results are presented in the following table:

Table 7.5: Normality test results

Variables	Skewness	Kurtosis	Result	Robustness checks	Transformation
Total disclosures	-.346	.067	Normal		
Size	-.955	.852	Normal		
Foreign members	.782	.186	Normal		
Independence	1.197	1.787	Not normal	approximately normal visually	
CEO duality	Dummy				
Educational level	.236	-.240	Normal		
Experience	-.093	-.600	Normal		
Meeting frequency	.490	3.651	Not normal		NSMeeting frequency
No. of directorships	.175	-.341	Normal		
Size	1.333	1.246	Not normal	approximately normal visually	
Experience	Dummy				
Independence	.395	-.351	Normal		
Size	.804	1.478	Normal		
Experience	.048	-1.115	Normal		
Independence	.283	-.246	Normal		
Managerial	1.306	.677		approximately normal visually	
Blockholders	-.052	-1.408	Normal		
Foreigners	.543	-1.144	Normal		
Family	1.062	-.179	Not normal		NFamily

### 7.5.2 Multicollinearity test

Multicollinearity between the variables were tested based on Variance Inflation Factor (VIF) and Tolerance. Examples of these tests can be seen in Table 7.6. Moreover a correlation matrix between all the variables is included in table 7.7. Highly correlated variables were not included in any of the examined models at the same time. The average VIF of the models indicated that there is no serious collinearity problem

A value of 10 is recommended as the maximum level of VIF (e.g., Hair, Anderson, Tatham, & Black, 1995; Kennedy, 1992; Marquardt, 1970; Neter, Wasserman, & Kutner, 1989)

Table 7.6: Examples of VIF multicollinearity tests

	Tolerance	VIF
BSZ	0.554	1.806
BFOR	0.19	5.273
BDUAL	0.569	1.756
BEDU	0.716	1.397
BEXP	0.379	2.636
BDIRC	0.687	1.455
ACSZ	0.452	2.213
ACEXP	0.689	1.452
ACIND	0.44	2.271
RCSZ	0.576	1.737
RCEXP	0.513	1.948
RCIND	0.559	1.79
OWNM	0.243	4.113
OWNB	0.459	2.177
OWNF	0.185	5.419
NBMF	0.559	1.788
NOWNFM	0.286	3.494
BIND	0.618	1.617

Dependent variable: OWNA

	Tolerance	VIF
BSZ	0.563	1.777
BFOR	0.219	4.572
BEDU	0.717	1.394
BEXP	0.403	2.483
BDIRC	0.674	1.483
ACSZ	0.447	2.237
ACEXP	0.687	1.456
ACIND	0.455	2.197
RCSZ	0.513	1.949
RCEXP	0.487	2.052
RCIND	0.575	1.740
OWNM	0.227	4.397
OWNB	0.384	2.602
NBMF	0.556	1.798
NOWNFM	0.299	3.346
BIND	0.605	1.653
OWNA	0.176	5.692
BDUAL	0.575	1.738

Dependent variable: OWNF

Table 7.7: Correlation matrix for all the variables

Correlation matrix of dependent and independent variables																			
	BSZ	BDUAL	BEXP	BDIRC	ACEXP	BEDU	BIND	BFOR	ACIND	ACSZ	NBMF	NormalOW	OWNA	OWNF	OWNB	OWNM	RCIND	RCEXP	RCSZ
BSZ	1																		
BDUAL	0.033768	1																	
BEXP	.208*	.200*	1																
BDIRC	-.260**	0.148264	-.167*	1															
ACEXP	-.03042	.282**	0.030259	0.14657	1														
BEDU	.171*	.309**	.268**	0.056278	0.114921	1													
BIND	0.04921	-.176*	-.12941	-.08625	-.199*	-.03874	1												
BFOR	0.12308	.202*	.531**	-.03872	-.13514	0.043652	-.05278	1											
ACIND	0.074116	-.0182	-.351**	-.05598	0.0712	0.091198	.296**	-.447**	1										
ACSZ	0.102429	.188*	.432**	-.10527	0.146718	0.115208	-.267**	.573**	-.164*	1									
NBMF	-.000103	0.127088	-.172*	-.15616	.162*	0.148009	-.01106	-.268**	.431**	0.12295	1								
NOWNFM	-.09808	-.10669	-.447**	-.02467	0.099956	0.024443	-.00887	-.597**	.350**	-.387**	0.120187	1							
OWNA	-.09938	.271**	.392**	-.0789	0.107545	0.128014	-.255**	.697**	-.255**	.619**	0.011202	-.437**	1						
OWNF	-.06632	.259**	.471**	-.09078	0.073048	0.062828	-.1378	.768**	-.239**	.626**	-.03584	-.458**	.948**	1					
OWNB	-.195*	0.058165	-.376**	.175*	0.046962	0.017292	-.12925	-.185*	0.077926	-.191*	0.090041	.359**	0.094708	-.02712	1				
OWNM	0.075641	0.022269	-.0636	-.04553	-.162*	-.02708	0.146597	-.215**	-.04876	-.390**	-.310**	.549**	-.449**	-.410**	.229**	1			
RCIND	-.0837	0.101415	-.313**	-.00784	.218**	0.114941	0.023244	-.351**	.474**	-.182*	.284**	.331**	-.13931	-.226**	.241**	-.05329	1		
RCEXP	.263**	-.12558	-.05079	0.124721	0.159132	-.05144	0.058194	0.048003	0.045086	0.077026	0.031159	-.012402	0.0828	0.116057	.219**	-.312**	-.11252	1	
RCSZ	.193*	.322**	0.135981	-.05602	0.07916	-.00053	0.012868	.375**	-.188*	.297**	-.07489	.348**	.488**	.448**	-.00527	-.193*	-.197*	.220**	1

### 7.5.3 Autocorrelation tests

To test for Autocorrelation issues, Durbin-Watson test was applied in all models. According to Field (2005) that Durbin-Watson values less than 1 or greater than 3 indicate that there is a problem of autocorrelation and that the closer to 2 the value, the better the model. Values of Durbin Watson for the models in the study were as follows.

Table 7.8: Durbin-Watson results for all models

Model	Durbin-Watson
Total risk disclosures	(1.206)
Coverage	(1.517)
Depth_Quan.	(1.081)
Depth_Qual	(1.261)
Composite	(1.241)

### 7.5.4 Constant variance of the residuals: Heteroscedasticity test

It is assumed that the variance of errors is constant across all the observations of the independent variables, heteroscedasticity appears if the variance of errors is dependent on (or more) of the independent variables. To make sure there is no problem of Heteroscedasticity, plots of standardized residuals was obtained. Results indicated that residuals have no pattern; the graph indicated no relationship, and the residuals were randomly spread in the graph. Hence, there is no Heteroscedasticity problem in the current study. Plots and graphs can be found in the appendix B. Figures B.1, B.2, and B.3.

### 7.5.5 Regression analysis results

The following multiple regression models were structured based on the theoretical framework, literature review and the results of univariate analysis. Multiple regression analysis was applied to examine the effects of the independent variables on the dependent variables.

## Regression model

$Y = \beta_0 + \beta_1 \text{Board size} + \beta_2 \text{Foreigners on board} + \beta_3 \text{Board education} + \beta_4 \text{Board experience} + \beta_5 \text{Board independence} + \beta_6 \text{Number of directorships} + \beta_7 \text{CEO duality} + \beta_8 \text{Board meeting frequency} + \beta_9 \text{Audit committee size} + \beta_{10} \text{Audit committee experience} + \beta_{11} \text{Audit committee Independence} + \beta_{12} \text{Risk committee size} + \beta_{13} \text{Risk committee experience} + \beta_{14} \text{Risk committee independence} + \beta_{15} \text{Managerial ownership} + \beta_{16} \text{Block-holders ownership} + \beta_{17} \text{Foreigners ownership} + \beta_{18} \text{Family ownership} + \epsilon.$

The multiple regression was run and the results are presented in Table 7.9. Five models are presented to explain the influence of independent variables on total risk disclosures (Model 1), Coverage (Model 2), Depth\_Quan. (Model 3), Depth\_Qual. (Model 4) and Composite (Model 5)

F-ratio is significant at level 0.01 in all models. Adjusted R<sup>2</sup> ranged from .0.442 in Model 1 to a 0.596 in model 5.

### **Model 1:**

Most of the variables related to board of directors' characteristics appeared to be significant in model 1. Board independence, experience and meeting frequency and experience of audit committee showed a significant positive association with the level of total risk disclosures. Foreigners on board variable is close to be a significant variable, however it only explains 0.002 of total risk disclosures. Other variables were insignificant except for audit committee experience and risk committee size which are positively and negatively associated with total risk disclosures respectively.

### **Model 2:**

Foreigners on board and CEO duality (a dummy variable) are found to be significantly and negatively associated with coverage of risk disclosures. Whereas, Board independence, education and experience, risk committee independence, managerial and foreigners ownerships are positively associated with the coverage of risk disclosures.

Table 7.9: Regression results for all the dimensions of risk disclosure

Model	Total disclosures		Coverage		Depth_Quan		Depth_Qual		Composite	
	Standardized Coeff.		Standardized Coeff.		Standardized Coeff.		Standardized Coeff.		Standardized Coeff.	
	Beta	Sig.								
BSZ	-0.020	0.018	-0.067	0.432	0.012	0.888	-0.268	0.001	-0.130	0.084
	-0.002	0.056	-0.614	0.000	0.081	0.546	0.007	0.953	-0.098	0.406
	0.163	0.013	0.216	0.008	0.163	0.046	-0.042	0.591	0.159	0.027
	-0.043	0.524	-0.192	0.024	0.005	0.956	0.067	0.406	-0.032	0.666
	0.068	0.299	0.228	0.006	-0.002	0.984	-0.056	0.477	0.057	0.424
	0.189	0.017	0.303	0.002	0.059	0.545	0.124	0.186	0.226	0.009
	0.078	0.205	0.126	0.099	0.003	0.969	0.034	0.634	0.080	0.232
	0.006	0.930	-0.148	0.099	0.087	0.328	0.164	0.055	0.067	0.392
	0.316	0.000	0.001	0.988	0.245	0.001	0.075	0.275	0.265	0.000
	-0.058	0.421	-0.054	0.543	0.057	0.524	0.307	0.000	0.103	0.189
	-0.264	0.000	0.069	0.415	-0.266	0.002	-0.405	0.000	-0.366	0.000
	0.100	0.149	0.156	0.069	-0.108	0.210	0.232	0.005	0.144	0.056
	0.071	0.286	0.228	0.006	-0.140	0.091	-0.193	0.015	-0.039	0.586
	-0.029	0.774	0.278	0.028	-0.314	0.014	0.300	0.013	0.070	0.528
	-0.119	0.151	0.106	0.299	-0.232	0.025	-0.222	0.024	-0.200	0.028
	-0.107	0.688	0.281	0.000	-0.947	0.004	0.284	0.369	-0.160	0.589
NBMF	0.162	0.016	-0.093	0.262	0.162	0.053	0.240	0.003	0.210	0.004
NOWNFM	-0.008	0.931	-0.172	0.126	-0.057	0.613	-0.014	0.895	-0.062	0.531
Model F-value (prob)	7.214 (.00)		7.739 (.00)		7.674 (.00)		9.13 (.00)		11.985 (.00)	
Adj.R-square	0.442		0.475		0.473		0.522		0.596	
No. of obs	150		150		150		150		150	

**Model 3:**

Board independence and audit committee experience are positively associated with the Depth of quantitative risk disclosures, whereas risk committee size and foreigner ownership showed a negative significant association.

**Model 4:**

Size of the risk committee and the board, risk committee independence and blockholders ownership showed a negative association with the depth of qualitative risk disclosures. On the other hand, Independence of audit committee, experience of risk committee, managerial ownership and meeting frequency of the board are positively correlated to the depth of qualitative risk disclosures. Size of audit committee is positively associated with the deth\_qaul., however, it is approximately significant.

**Model 5:**

The composite measure is positively associated to the board independence, experience and meeting frequency and audit committee experience. Risk committee size and blockholders ownership are positively correlated to the composite measure.

A principal Component Analysis was employed to conduct factor analysis, Principal Component Analysis is a technique used to transform several correlated variables into a smaller set of variables (called principal components) (Richardson, 2009).

The analysis was done on four variables (Coverage, Depth qualitative, Depth quantitative, and Quantity), the variable with the higher eigenvalue was coverage with eigenvalue of 1.81.

**7.5.6 Fixed year effect:**

Given the 10 years period of the study, fixed year effects is controlled for. Year 2007 represent the reference year and dummy variables are employed to capture the year effects of 2008 to 2016.

Years 2008 and 2009 have significant and positive association, and the rest of the year have insignificant association. Hence, indicating that the level of disclosures changes across years which is consistent with (Elshandidy and Neri, 2015; Ntim et al., 2012)

### 7.5.7 Discussion of regression analysis

#### 1. Board of directors characteristics and risk disclosures

Table 7.10 reports regression results from multivariate OLS regressions of the proxies of the level of risk disclosures on board characteristics.

Table 7.10: Association between Board of directors' variables and risk disclosure

Model	Total disclosures		Coverage		Depth_Quan		Depth_Qual		Composite	
	Standar dized Coeff.		Standar dized Coeff.		Standar dized Coeff.		Standar dized Coeff.		Standar dized Coeff.	
	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.
BSZ	-0.020	0.018	-0.067	0.432	0.012	0.88 8	-0.268	0.00 1	-0.130	0.08 4
BFOR	-0.002	0.056	-0.614	0.000	0.081	0.54 6	0.007	0.95 3	-0.098	0.40 6
BIND	0.163	0.013	0.216	0.008	0.163	0.04 6	-0.042	0.59 1	0.159	0.02 7
BDUAL	-0.043	0.524	-0.192	0.024	0.005	0.95 6	0.067	0.40 6	-0.032	0.66 6
BEDU	0.068	0.299	0.228	0.006	-0.002	0.98 4	-0.056	0.47 7	0.057	0.42 4
BEXP	0.189	0.017	0.303	0.002	0.059	0.54 5	0.124	0.18 6	0.226	0.00 9
BDIRC	0.078	0.205	0.126	0.099	0.003	0.96 9	0.034	0.63 4	0.080	0.23 2

BSZ: Board size, BFOR: Foreign members on the board, DIND: board independence, BDUAL:CEO duality, BEDU: Board education, BEXP: Board experience, BDIRC: Number of directorships.

#### 1.1 Board size:

Board size is significantly and negatively associated with risk disclosures in three of the five models, this is not in line with H1. This result demonstrates that banks with small boards are expected to disclose more risk information. This is inconsistent with the literature of risk disclosures (e.g., Elshandidy et al., 2013; Ntim et al., 2013; Elshandidy and Neri, 2015) and inconsistent resource

dependency theory that expected higher experiences and knowledge of larger boards would increase the level of disclosures. This result is supportive of the argument (Lipton and Lorsh, 1992) that in large boards, communication, arrangement of meetings and reaching consensus become difficult. Therefore boards become less effective and less capable of monitoring, hence, affecting the level of disclosures negatively.

### **1.2 Board independence:**

Board independence was found significantly and positively related to the level of risk disclosures in four of the five models. This is in line with H2. The result is consistent with the expectations of the agency theory, Resource dependency theory, recommendations of international agencies (e.g. OECD, 2012) and the majority of prior literature (e.g. Patelli and Prencipe, 2007; Elshandidy et al., 2013; Jizi 2013). Thus, this result confirms the argument that independent boards have greater monitoring ability over management (Fama and Jensen, 1983) and act in the best interest of shareholders (Laksmana, 2008).

### **1.3 Leadership style**

Duality of the CEO was found insignificant to the level of risk disclosures in four of the five models and negatively associated to risk disclosures in the remaining model. The result fails to offer empirical support for H3. This suggests that recommendations to separate the two positions, based on the argument that this will enhance monitoring effectiveness, is not applicable in banks in Jordan where most of the banks (87.3% as reported in table 7.3) have two persons for the two positions. This result is consistent with Ho & Wong (2001), Cheng and Courtney (2004) and Barako et al. (2006).

### **1.4 Board qualification**

Qualification of the board was measured by the level of education and experience of the members. Education was found insignificant to the level of risk disclosures in four of the five models. Hence, this does not offer empirical support for H4a. This could be explained by the way this variable is measured. Education was measured as the ratio of directors who have postgraduate degrees regardless of the field and many of the members have degrees such as engineering, medicine, and literature. As argued by Haniffa and Cooke (2002), members of the board should have academic backgrounds in accounting or business.

Experience of the board is positively and significantly associated with risk disclosures in three of the five models. This is in line with H4b and in line with resource dependency theory which expects that

experienced members provide the firm with their talents and advising (Pfeffer & Salancik, 2003). The result is consistent with Mangena & Tauringana (2007) and Mangena & Pike (2005).

In contrast, board members' competence may be an important driver of the concentration of risk information across risk disclosure topic.

Martikinene (2015) having the ability to see the most relevant issues in the firm's risk disclosure. While this finding is in contrast with prior literature, which shows that the coverage of firms' risk disclosures increases with higher-quality risk disclosure standards (Miihkinen, 2012), it can be explained by highly educated board members' ability to focus on the most essential risks.

### 1.5 Meeting frequency

Meeting frequency is positively and significantly associated with risk disclosures in three of the five models. It is in line with H5. The result is consistent with the findings of Allegrini and Greco (2013) and Barros et al. (2013). The positive relation implies that higher meeting frequency provides the members with an opportunities to discuss company's issues such as financial reporting practices (Li et al., 2012) and enhances monitoring role of the board over disclosure policies.

### 1.6 Number of directorships

Number of directorship is also in insignificant in four of the five models and positively related to risk disclosures in the remaining model. Hence it fails to support H6. Hence, based on this result, number of directorships are held by members of the board does not affect the level of risk disclosures. This is inconsistent with great part of the literature (e.g. Laksmana, 2008; Othman et al., 2014; Fich and Shivdasani, 2006) which reported a negative significant association between number of directorships and the level of disclosures.

## 2. Risk committee variables:

Table 7.11 reports regression results from multivariate OLS regressions of the proxies of the level of risk disclosures on risk committee characteristics.

Table 7.11: Association between Risk committee variables and risk disclosure

Model	Total disclosures		Coverage		Depth_Quan		Depth_Qual		Composite	
	Standar dized Coeff.	Beta Sig.								
RCSZ	-0.264	0.00	0.069	0.41	-0.266	0.00	-0.405	0.00	-0.366	0.00

		0		5		2		0		0
RCEXP	0.100	0.14	0.156	0.06	-0.108	0.21	0.232	0.00	0.144	0.05
RCIND	0.071	0.28	0.228	0.00	-0.140	0.09	-0.193	0.01	-0.039	0.58

RCSZ: Risk committee size; RCEXP: Risk committee experience; RCIND: Risk committee independence

## 2.1. Risk committee size

Size of risk committee was found to be negatively and significantly associated with risk disclosures in four of the five models. This provides support for H7 which predicted the existence of association between risk disclosures and risk committee size. The result provides support for agency theory expectation that large committees may have problems of communication and monitoring (Jensen, 1993). The result is inconsistent with Alhadi et al., (2016) who reported that the size of risk committee is positively associated to the level of risk disclosures.

## 2.2. Risk committee experience

Experience of the risk committee is insignificant to the level of risk disclosures in four of the five models. The result does not provide empirical support for H8. It is inconsistent with Alhadi et al. (2016) who expected and found a positive relation between the experience of the committee and risk disclosures, they argued that experienced members will identify and avoid problems with risk disclosures. Based on the risk committee size result, the smaller the board the more effective in enhancing risk disclosures regardless of the members' experiences.

## 2.3 Risk committee independence

Independence of the risk committee is only significant in two of the five models. Independence is positively (negatively) associated with coverage (Depth\_Qaul). The more independent the committee the more risk disclosures are evenly distributed among different topics meaning that independent members will consider different users of the financial statements in their disclosures. However, they are less likely to provide qualitative information. The insignificant relation in the rest of the models is consistent with Hadi et al. (2016) who found that risk committee independence is insignificant to the level of risk disclosures.

## 1. Audit committee variables

Table 7.12 reports regression results from multivariate OLS regressions of the proxies of the level of risk disclosures on audit committee characteristics.

Table 7.12: Association between audit committee variables and risk disclosure

Model	Total disclosures		Coverage		Depth_Quan		Depth_Qual		Composite	
	Standarized		Standarized		Standarized		Standarized		Standarized	
	Coeff.	Beta	Coeff.	Beta	Coeff.	Beta	Coeff.	Beta	Coeff.	Beta
	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.
ACSZ	0.006	0.930	-0.148	0.099	0.087	0.328	0.164	0.055	0.067	0.392
ACEXP	0.316	0.000	0.001	0.988	0.245	0.001	0.075	0.275	0.265	0.000
ACIND	-0.058	0.421	-0.054	0.543	0.057	0.524	0.307	0.000	0.103	0.189
ACSZ: Audit committee size; ACEXP: Audit committee experience; ACIND: Audit committee independence										

### 3.1 Audit committee size

Size of audit committee was found insignificant to risk disclosures in all of the models. Hence H10 is rejected. The result is consistent with Hidalgo et al. (2011), and Mangena and Pike (2005). It is also in line with the findings of Al-Maghzom et al. (2016) were audit committee size was insignificant to voluntary risk disclosure in Saudi listed banks. This implies that the size of audit committee is not relevant to the level of risk disclosures.

### 3.2 Audit committee experience

Audit committee experience is positively and significantly correlated to risk disclosures. Hence, H11 is accepted. This result is not surprising, since financial reporting practices in the firm are of the responsibilities of the audit committee. Hence, experienced committee members are more likely to

demand and argue for a better financial reporting quality. The finding is consistent with the findings of Dhaliwal et al. (2010) and Akhtaruddin and Haron (2010).

### 3.3 Audit committee independence

Independence of the committee members was found insignificant in four of the five models, failing to give support for H12. The result is consistent with those of Al-Maghzom et al. (2016) regarding voluntary risk disclosures in Saudi listed banks. This is not in line with the arguments of agency theory, which suggests that independent members will have better monitoring behaviour of managers (Rosenstein & Wyatt, 1990) and are more likely to reduce the chance of management withholding information (Allegrini & Greco, 2011).

### 4. Ownership structure

Table 7.13 reports regression results from multivariate OLS regressions of the proxies of the level of risk disclosures on ownership structure variables.

Table 7.13: Association between ownership structure variables and risk disclosure

Model	Total disclosures		Coverage		Depth_Quan		Depth_Qual		Composite	
	Standarized	Coeff.	Standarized	Coeff.	Standarized	Coeff.	Standarized	Coeff.	Standarized	Coeff.
	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.
OWNM	-0.029	0.774	0.278	0.028	-0.314	0.014	0.300	0.013	0.070	0.528
OWNB	-0.119	0.151	0.106	0.299	-0.232	0.025	-0.222	0.024	-0.200	0.028
OWNF	-0.107	0.688	0.281	0.000	-0.947	0.004	0.284	0.369	-0.160	0.589
NOWNF	-0.008	0.931	-0.172	0.126	-0.057	0.613	-0.014	0.895	-0.062	0.531

OWNM: Managerial ownership, OWNB: Blockholders ownership, OWNF: Foreign Ownership, NOWNF: Family ownership.

#### **4.1 Managerial ownership**

Managerial ownership was found significant in three of the five models. However, it is positively correlated to coverage of risk disclosures and depth of qualitative risk disclosures and negatively correlated to depth of quantitative risk disclosures. This result demonstrates that if top management owns shares of the bank, it will increase their willingness to provide risk disclosures for different types of stakeholders. It can be argued that managers' ownership in the firm can align board members' interests with those of the stakeholders. This provides evidence that owners managers concentrate on more risk topics. Based on the results, owner managers provide less quantitative information and more qualitative information, i.e. owner managers are reluctant to provide monetary assessments of risk information.

This result contradicts the findings of Martikainen et al. (2015), they reported that members owning shares in the firm they direct, will increase the quantity of risk disclosures. However, it is not significant to the coverage of risk disclosures.

#### **4.2 Block-holders ownership**

Blockholders ownership was found negatively and significantly associated in three of the five models. The higher ownership concentration, the lower the quality of risk disclosures. This is consistent with Firer and Williams (2005), they reported that firms with higher concentration of ownership provide less information on intellectual capital (IC), it should be noted that IC is measured by an index that take into consideration quantity and quality of disclosures. and in line with Ntim et al. (2013), who reported that implying that corporations in South Africa with high blockholders ownership are more likely to significantly disclose less risk information.

This can be explained by the argument (Noe, 2002) that large block-holders may have the ability to obtain the information needed in private ways since they have more incentives and are able to influence the management. Hence, they will not influence the management to disclose the management to disclose publicly. Moreover, the negative correlation is consistent with theoretical suggestions of agency theory (Jensen & Meckling 1976) that blockholders have less information asymmetry. Hence, less pressure on management to disclose information (Khan et al., 2013).

#### **4.3 Foreign ownership**

Foreign ownership is insignificant to risk disclosures in three of the five models. However, it has a strong negative association with the depth of quantitative risk disclosures and a positive correlation

with the coverage of risk disclosures. Martikainen et al. (2015) found a positive correlation between the coverage of risk disclosures and foreign ownership which is in line the findings of this study.

It is interesting that managerial ownership is positively (negatively) associated with coverage (Depth\_Quan.) as well. Ananchotkul (2007) and Mangena and Tauringana (2007) argued that foreign owners tend to become part of the firm and react like the local shareholders. Given the great part of foreign shareholders is from Arabic countries, this provides evidence on the previous argument.

Moreover, (Laidroo, 2009) argues that if the shareholder's interest become significant, disclosure is likely to decrease. And this implies to foreign owners especially that foreign owners are usually big international companies.

#### **4.4 Family ownership**

Family ownership was found insignificant to risk disclosures in all of the models. This is inconsistent with the expectation that family ownership is more likely to reduce the level of disclosures. The result is inconsistent with the agency theory, where it is expected that family owners will control other shareholders (Shleifer and Vishny, 1997), hence, they tend to withhold information so they can maximise their interest at the expense of other stakeholders (Zulkarnain, 2007). And inconsistent with Ashiq et al. 2007, Ho and Wong 2001 and Chen et al. 2008 who found a negative relationship between family ownership and the level of disclosures.

#### **7.5.6 Results of Random effects model.**

The study employed multiple regression to conduct its analyses where variables examined can be different across firms, however, they may remain the same over time, which may be ignored by linear regression, resulting in a bias. Hence, random or fixed effect model is suggested to check whether or not the main results are sensitive to the governance characteristics examined.

To decide between random and fixed effect models, Hausmans Test was applied and the test results show that the p value is 0.5979 which is insignificant. Hence, Hausman test proves to be non-significant, accordingly, the random effects model is better than fixed effect regression model.

In the current study, random effect model will be applied. Moreover, fixed effect model is used when the study does not intend to generalize the results and the purpose is to examine only the identified population (Borenstein et al., 2009). The following model presents a comparison between the results of random effect model and multiple regression analysis.

Table 7.14: Results Based on Random Effect Model

Model	Multivariate analysis		Random effect analysis	
	Standardized Coeff.	Beta	Sig.	
				Estimate
BSZ	-0.020	0.018	0.018	-2.131287
BFOR	-0.002	0.056	0.056	23.086104
BIND	0.163	0.013	0.013	68.693754
BDUAL	-0.043	0.524	0.524	-6.400970
BEDU	0.068	0.299	0.299	29.736988
BEXP	0.189	0.017	0.017	57.307247
BDIRC	0.078	0.205	0.205	4.541611
ACSZ	0.006	0.930	0.930	-2.344439
ACEXP	0.316	0.000	0.000	45.117433
ACIND	-0.058	0.421	0.421	-0.142741
RCSZ	-0.264	0.000	0.000	2.396618
RCEXP	0.100	0.149	0.149	28.388873
RCIND	0.071	0.286	0.286	-33.914089
OWNM	-0.029	0.774	0.774	-72.346478
OWNB	-0.119	0.151	0.151	-28.336863
OWNF	-0.107	0.688	0.688	-35.779004
NBMF	0.162	0.016	0.016	0.274001
NOWNFM	-0.008	0.931	0.931	-48.657406

The value of F-statistic is 7.214 for the first model and 8.631 for the random effect model and both are statistically significant at 1% level. In general, results of both analysis are similar.

#### 7.5.6 ANOVA analysis

#### 7.5.7 Effect of corporate governance codes on the level of risk disclosures

ANOVA analysis was run to compare the levels of disclosures in three periods. Pre 2008 (i.e. before the compliance with the 2007 comply or explain Corporate Governance Code), post 2008, and pre 2014 (i.e., when the Code became mandatory).

The first analysis is statistically significant proving that there is a difference between the levels of disclosures before and after the introduction of the Corporate Governance Code. The results also shows that the mean of total disclosures has increased as a result of the compliance with the code. As shown in table 7.15.

Table 7.15: Pre 2008 and post 2008 ANOVA analysis

	Sum of Squares	df	Mean Square	F	Sig.	Mean
Between Groups	35845.633	1	35845.633	26.881	.000	(Pre2008) 279.400
Within Groups	37337.905	28	1333.497			(Post2008) 348.5333
Total	73183.538	29				

However, comparing disclosures before and after the introduction of the mandatory code of corporate governance, the results were insignificant as appears in the following table. However, the mean of disclosures is higher in the period after the mandatory code was introduced. As appears in table 7.16.

Table 7.16: Pre 2014 and post 2014 ANOVA analysis

	Sum of Squares	Df	Mean Square	F	Sig.	Mean
Between Groups	3456.133	1	3456.133	2.716	.111	348.5333
Within Groups	35627.805	28	1272.422			370.0000
Total	39083.938	29				

## 7.6 Conclusion

The chapter provided results of the several analyses employed in the study. Different models showed different results on the association between risk disclosures and variables examined. However, other results were similar. Further discussion will be provided in the next chapter combined by the results from qualitative analysis.

## Chapter 8 : Findings and discussion

## 8.1 Introduction

This chapter provides a discussion of the study findings based on the results of the qualitative study (presented in chapter 5) and the quantitative analysis (presented in chapter 6). The chapter aims at bringing the results of both qualitative and quantitative analysis into one discussion in order to synthesize and construct a comprehensive picture of the issue under study.

This chapter integrates the quantitative findings with the qualitative findings; qualitative results will be employed to assist in explaining the quantitative. By doing so, the study investigates the influence of the corporate governance codes issued by the Central Bank of Jordan on the level of risk disclosures provided by the Jordanian banks, and the correlation between Jordanian banks governance and risk disclosures practices.

Results of both types of analysis provided different conclusions, however, some hypotheses were supported by both methods others had mixed results. Contradictory findings are normal in the literature of risk disclosures (previous literature was discussed in chapter three). Moreover, interviewees included in the study have provided different opinions on the determinants of risk disclosures practises in the annual reports of Jordanian banks. Furthermore, this could be an indication that relying on one method to conduct a study may be misleading.

The chapter includes three main sections. The sections are: (i) level of risk disclosures, (ii) corporate governance mechanisms and risk disclosures, (iii) the influence of corporate governance codes on the level of disclosures.

## 8.2 Risk disclosure practices

Table 8.1: Level of risk disclosures

Quantitative analysis	Qualitative analysis
Quantitative analysis showed that the level of total risk disclosures have increased over the period of the study (2007-2016). From a minimum of 220 disclosures in 2007 to a maximum of 432 disclosures in 2016.	Interviewees discussed that the number of disclosures they need to provide each year increases. Due to more instructions of the CBJ and the increase of challenges faced by banks (e.g. Cyber-attacks and the political crisis)

Both quantitative and qualitative analysis agreed that the level of risk information provided by Jordanian banks are increasing over time. Banks have more information they are required to disclose with more regulatory pressure on banks and with continuous woes that hit the region and world. For

example, based on quantitative analysis, the level of economic disclosures has increased dramatically in 2008 after the 2007-2008 credit crisis.

Table 8.2: Categories of risk disclosures

Quantitative analysis	Qualitative analysis
Financial risks are the most disclosed type of risks (63.45%). Tests applied indicated that level of financial risks is significantly greater than all other types of disclosures.	According to the interviewees, banks in Jordan tend to avoid voluntary disclosures and they do disclose information mainly based on requirements which focus on financial information (e.g. IFRS7)

The study finds that financial disclosures are the most disclosed among all other types and this supported by qualitative and quantitative analysis. This is consistent with other studies in the literature (e.g. Abraham and Cox, 2007; Linsley and Shrives, 2006). Interviewees discussed that they focus more on disclosures requirements and that they tend to provide more mandatory disclosures than voluntary disclosures, this could be the main explanation of the dominance of financial risks over other types.

Regression results showed that providing risk disclosures in different categories is strongly influenced by board characteristics (independence, education, experience, foreigners on board, CEO duality and meeting frequency) and with risk committee independence. Among the variables of ownership structure, coverage of risk disclosures is only associated with foreigners ownership.

This result indicated that board characteristics have significantly more influence on the banks' types of risk disclosures than the influence of the owners. Moreover, independent educated and experienced members on the board are expected cover more topics in their risk disclosures.

Table 8.3: Quantitative and qualitative risk disclosures

Quantitative analysis	Qualitative analysis
Results indicate that levels of quantitative and qualitative risk disclosure are not significantly different.	Interviewees discussed that they focus on complying with disclosures requirements, such as IFRS 7, Basel (mainly quantitative) and Governance codes (mainly qualitative)

Results of quantitative and qualitative analysis are consistent regarding the disclosures of quantitative and qualitative of risk information. Results showed that banks disclose (50.24%) and

(49.76%) quantitative and qualitative disclosures respectively. Moreover, Wilcoxon Signed Rank shows that both types of disclosures are not significantly different. This is explained by the results obtained based on interviews analysis, interviewees indicated that they disclose risk information mainly based on rules and regulations, which focus on both types. The interviewees discussed that bank tend to avoid voluntary disclosures which is usually qualitative in nature.

The results are inconsistent with the majority of the literature; prior studies reported that qualitative risk disclosures is higher than quantitative risk disclosures (e.g. Beretta and Bozzolan, 2004; Konishi and Ali, 2007; Rajab and Schachler, 2009; Lajili and Zeghal, 2005).

Table 8.4: Time frame of disclosures

Quantitative analysis	Qualitative analysis
Neutral disclosures were the most disclosed (35.76%), followed by past and future news (32.9%) and (31.34%) respectively.	Banks tend to avoid disclosing future information due to uncertainty.

Results of content analysis indicated that the levels of past and future disclosures were similar, which is inconsistent with Beattie et al., 2004; Lajili and Zeghal, 2005; Konishi & Ali, 2007). However, the results can be explained by the compliance with disclosures requirements; banks are required to disclose forward looking information (for example, hedging information). According to interviewees, management is reluctant to disclose uncertain information due to fear of litigation and fear that the image of the bank may be distorted.

Regression results showed that future risk disclosures (measured as Depth\_quan.) is strongly and negatively influenced managerial ownership and blockholders ownership, suggesting that these types of owners are expected to exert pressure on the board to disclose less future quantitative information. This could be explained by the ability of these parties to obtain information internally; hence, they do not have to rely on annual reports for risk disclosures.

Table 8.5: Sign of disclosures

Quantitative analysis	Qualitative analysis
Based on content analysis, neutral disclosures accounted for (49.61%), followed by good news (32.68).	Interviewees indicated that banks tend not to disclose any type of bad news unless it is required.

Bad news accounted for (17.70%) of all risk disclosures and this is consistent with the results of qualitative analysis. Interviewees explained that this type of information may be misunderstood by investors and may be used against the bank by competitors. Hence, they tend not disclose bad news that may affect the image of the bank. Moreover, signalling theory expects that firms tend to disclose good news to inform the market that the firm is performing well (Linsley and Shrives, 2000).

### 8.3 Governance mechanisms influence on risk disclosures

Table 8.6: Governance mechanisms influence on risk disclosures

Quantitative analysis	Qualitative analysis
Regression analysis showed that some governance variable have a significant influence on risk disclosures, while others did not.	Interviewees discussed that some governance variables (e.g. features of board) can influence disclosure practices. However, they emphasised that other variables (e.g. types of owners) cannot.

Regression results indicated that characteristics of the board (size, independence, meeting frequency and experience), audit committee experience and the size of audit committee are significantly associated with the level of total risk disclosures. While all ownership types did not have any significant association. This is consistent with interviews analysis results, interviewees agreed that usually owners cannot influence the board when it comes to disclosures decisions. This is inconsistent with Beattie et al. (2001) and Abraham and Cox (2007) who argued that ownership structure can influence risk disclosures practices.

Board size was found to be negatively associated with the level of total disclosures, this is consistent with the argument that larger boards tend to be less effective and to have more costs (Jensen, 1993). However, it is not in line with the argument of Cheng and Courtenay (2006) that larger boards enhances monitoring function of the board and enhances risk disclosures.

There is a positive significant association between total risk disclosures and the independence of the board. Suggesting that independent boards are better at monitoring management, this is consistent with (Abraham & Cox, 2007; Cheng and Courtenay, 2006).

#### 8.4 Effect of corporate governance codes

Table 8.7: Effect of corporate governance codes

Quantitative analysis	Qualitative analysis
Regression analysis showed that the levels of disclosures has increased after the Corporate Governance Code 2007.	Interviewees emphasized the importance of governance codes introduced by the CBJ on disclosure practices.

Regression analysis showed that there is a significant increase in the level of total risk disclosures after the introduction of the Corporate Governance Code in 2007. However, the introduction of the mandatory code in 2014 did not make much a difference in the level of total risk disclosures.

Interviewees emphasized the influence of governance codes and the strict enforcement by the CBJ on the banks' disclosure practices which is in line with the results of quantitative analysis. However, the insignificance difference in disclosures after the introduction of governance code in 2014 can be explained by the fact that banks were complying already with the (comply or explain) code of 2007.

Table 8.8: Summary of results

Hypothesis	Expected	Quantitative
Size of the board and risk disclosures	Positive	Negative
Composition of the board (independence of the board)	Positive	Supported
Leadership style (CEO duality)	Negative	Negative (insignificant)
Experience on board (Level of education)	Positive	Positive (insignificant)
Experience on board (financial experience)	Positive	Supported
Board meeting frequency	Positive	Supported
Number of board members directorships	Negative	Positive (Insignificant)
Risk committee size	Significant association	Negative

Risk committee experience	Positive	Positive (insignificant)
Risk committee independence	Significant association	Positive (Insignificant)
Audit committee size	Significant association	Positive (Insignificant)
Audit committee experience	Positive	Supported
Audit committee independence	Positive	Negative (Insignificant)
Managerial ownership	Negative	Negative (Insignificant)
Blockholders ownership	Positive	Negative (Insignificant)
Family ownership	Negative	Negative (Insignificant)
Foreign ownership	Positive	Negative (Insignificant)

### 8.5 Conclusion

Results shows that level of risk disclosures has increased over the period of the study. Financial risks are the most dominant risk disclosure category and forward looking risk disclosures are much less frequent within annual reports. There is a tendency among Jordanian banks to avoid voluntary risk disclosures. The discussion suggests that disclosure and governance standards in Jordan are adequate. The overall discussion showed that characteristics of the board have stronger influence over risk disclosure practices than the different types of ownership.

## Chapter 9 : Conclusion

## 9.1 Introduction

This chapter provides an overall conclusion of the research along with the contribution, limitations and suggestions for further research.

## 9.2. Summary of findings

It was found that there was a trend of increasing amounts of risk disclosure over the period as a result of increasing pressure from regulators. The research investigated the current state of corporate risk disclosure levels in the context of the Jordanian environment. According to the results, banks in Jordan provided similar levels of risk disclosures in terms of total risk disclosure, risk disclosure categories, time-frame, risk disclosure type (quantitative vs. qualitative) and the sign of risk disclosure (good-news, bad news and neutral). This can be attributed to the existence of standards and regulations on risk reporting and risk management and the strict enforcement by the CBJ.

The research performed content analysis based on a checklist in an attempt to examine the quality of risk disclosures made by the Jordanian banks. The research examined categories of risk disclosures and other dimensions of the quality of risk disclosure (e.g. time-frame and the sign of risk information). Based on content analysis, all banks have provided a separate section for risk and risk management disclosures. However, risk disclosures were found in other sections as well (e.g. the chairman statement).

Banks provided risk information on the different risk disclosure categories (i.e. financial, empowerment, operational, technology, integrity, strategic, regulation and compliance, political and economic), the results showed there was an extensive disclosures of financial information, followed by disclosures of integrity information. However, less attention was paid to other categories such as empowerment and strategic.

It was found that banks provided both qualitative and quantitative risk information, quantitative information included sensitivity analysis, market risk exposures and financial derivatives. Qualitative information included risk management policies and description of global and regional challenges. Banks did disclose low level of voluntary risk disclosures, most of the risk information was based on mandatory requirements, Such as Basel and IFRS. The dominance of financial risk disclosure (mandatory) indicates that banks' are reluctant to provide information on risk voluntarily.

The study investigated the influence of corporate governance on risk disclosure. The research investigated the association between several corporate governance mechanisms and risk disclosures. Results indicated that the influence of the board of director's characteristics on risk disclosure was greater than types of ownership; this result was supported by quantitative and qualitative analysis. It can be concluded that owners do not have the power to influence the decisions of the board when it comes to disclosure practices.

Based on qualitative and quantitative results, it can be concluded that the banking industry in Jordan is highly regulated and that the strict role of the CBJ has helped improving risk management systems and risk disclosures in the annual reports of the Jordanian banks. However, voluntary risk disclosures are still lacking and banks are reluctant to share risk information unless they are required to. +6+

### **9.3 Contribution and limitations**

The study contributes the disclosure literature by investigating risk disclosure level from an emerging country perspective, since most risk disclosures empirical studies have focused on the developed countries. This study attempted to address the gap in the risk disclosure literature by examining a country with different conditions and culture.

The study provided knowledge on the influence of governance mechanisms on the levels of risk disclosures, which is an understudied area (Abraham and Shriives, 2014). While there have been a limited number of studies that examined corporate governance and risk disclosures, research has largely tended to focus on non-financial sector, hence this research comes to shed the light on risk disclosures of financial firms, banks in particular. Risk disclosure literature, which examine the determinants of risk disclosures, tend to focus on firms characteristics such as size, profitability or leverage rather than the effect of governance on the level of risk disclosures. This research comes to address this gap.

This research has employed content analysis technique to measure the quantity and quality of risk disclosures in the annual report of Jordanian banks, rather than merely counting words or sentences as a measure off quantity. The quality of disclosures is more imperative than quantity (Hasseldine et al., 2005), given that the great part of research has focused on the quantity of risk disclosures rather than quality. To ensure reliability of the obtained scores, well developed coding scheme was employed and two rounds of coding.

Moreover, this study adds to the research by trying to clarify the opacity of the contradicting findings in the literature of risk disclosures. More importantly, the current research examines a

comprehensive set of corporate governance characteristics, covering boards of directors, risk committee, audit committee and ownership structures, rather than examining one or two governance factors in isolation.

The research attempted to provide insights into risk disclosures practices within the banking sector in Jordan. The study employed qualitative method (interviews) to explore disclosure practices in depth, since according to (Wallace and Naser, 1995), disclosures is a subjective issue which cannot be examined merely by using quantitative methods. Based on qualitative analysis, this study contributes to the risk disclosure research with a risk disclosure theory, the dimensions of the theory have been introduced in chapter 6.

Furthermore, the study contributes to corporate governance practice in Jordan and attempts to provide recommendations for policy makers. The research covers the period (2007-2016), during which two Corporate Governance Codes for banks have been introduced. Hence, the study can shed the light on the effectiveness of such codes.

The research contributes to risk disclosure literature by reporting reasons of firms' tendency to avoid risk disclosure which is not yet clear in the literature. Reasons in the Jordanian context include limited knowledge and awareness of risk and risk management issues, novelty of corporate governance and risk management and disclosure costs. Hence, for policy makers to improve risk disclosure practises, efforts should directed toward spreading awareness about the importance of risk management and corporate governance to firms and markets.

This research provides a different finding than the majority of the risk disclosure literature. Based on content analysis, risk disclosures mong Jordanian banks were similar in quantity and topics which is inconsistent with most of the literature (e.g. Kajuter 2004; Rajgopal 1999; Carlon et al.2003; Lajili and Zéghal 2005; Mohobbot 2005; Linsley and Shrives 2006) where they reported that risk disclosures are variant and uneven among firms in the same country, this implies that the efforts of the CBJ have been effective. Moreover, it could be attributed to the rules based regulation of the CBJ, CBJ closely control information that should be disclosed by banks in Jordan. Hence, Jordanian banks ending up disclosing similar amounts of disclosures.

Findings of interviews' analysis showed that Jordanian banks are facing particular types of risk, due to the unrest in the region, such as political risks, since many banks have branches in countries that faces turmoil and rioting such as Iraq, Palestine and Syria. In addition, the turmoil in the region increases the challenges of the Jordanian economy and decreases the attractiveness of the Jordanian capital market. One important finding is that banks in Jordan tend to avoid voluntary risk

disclosures due to reasons like disclosure costs and fear of impaired reputation which reconciles with the cost propriety theory (Hayes and Lundholm 1996). Moreover, banks in Jordan disclose risk information due to the effective role of the Central Bank of Jordan. Hence, if risk disclosures in the Jordanian banks are to be improved, efforts should be focused on establishing more rules and regulations.

This study is not without limitations, first limitation is the small sample size. However, the study focused on the banking industry in Jordan and the included all the banks listed in Amman Stock exchange. Second, the study examined risk disclosure in the annual reports of Jordanian banks and did not include other source of information, such as press releases and conference calls. Finally, content analysis approach employed in the study is subjective. However, several solutions were exploited to minimise subjectivity. These are (i) detailed decision rules, (ii) the coding process was done in two different periods in order to enhance the reliability, and (iii) precise definitions of categories were used.

#### **9.4 Implications**

The implication of this study for policy makers is to establish requirements on non-financial risks, specifically empowerment and strategic risks, which are the least disclosed categories. In addition, the CBJ and regulatory bodies in Jordan could decide to go beyond IFRS 7 and adopt for example, the third pillar of Basel 2, which focuses more on risk disclosures.

#### **9.5 Future research**

This study examined annual reports; a future research could investigate risk disclosure using other sources (e.g. press releases and interim reports). The study did not differentiate between Islamic and non-Islamic banks; therefore, researchers can investigate risk disclosure practices in Islamic banks vs. risk disclosures practises in conventional banks. A future research could examine risk disclosure practices in multiple countries to investigate the effect of different regulatory and cultural environments.

## Appendix A

Table A. 1: Coding matrix for content analysis

Company name:		Financial risks	Operation risk	Empowerment risks	Technology risk	Integrity risks	Strategic risk	Regulation risk	Economic risks
Year:									
Risk disclosure sentence characteristic		1	2	3	4	5	6	7	8
Quantitative/good news/future	A								
Quantitative/bad news/future	B								
Quantitative/neutral/future	C								
Qualitative/good news/future	D								
Qualitative/bad news/future	E								
Qualitative/neutral/future	F								
Quantitative/good news/Past	G								
Quantitative/bad news/Past	H								
Quantitative/neutral/Past	I								
Qualitative/good news/Past	J								
Qualitative/bad news/Past	K								
Qualitative/neutral news/Past	L								
Qualitative/neutral/non-times	M								
Qualitative/good news/non-time	N								
Qualitative/bad news/non-time	O								

Table A. 2: Coding scheme

Risk category	Risk item
Financial	Capital risk Interest rate risk Insurance risk Price risk, Credit risk, Liquidity risk Market risk Allowance account for credit losses Nature and extent of risks arising from financial instruments Cash flow risk and uncertainties Change in accounting estimate Impairment losses Effects of changes in foreign exchange rates and risks Borrowing cost risk Hedging Impairment of Assets Provisions nature, uncertainties Contingent liabilities nature and uncertainties Contingent assets uncertainties and nature Fair value hedges Derivatives hedging Decline in the fair value Lease risk and uncertainties Taxation loss, risk and uncertainties Capital availability or Capital structure Going concern uncertainties Judgments made in the process of applying accounting policy Key sources of estimation uncertainty
Operational	Customers relations Loss of a big customers Business segment Geographic risk Service failure Performance measurement Accidents Joint ventures and acquisitions variability of operating results
Environmental	Natural casualties Social cost and Responsibility Disclosure
Technology	Internet Infrastructure Technical and system failure Access Availability Rapid technological change Lack of information

Technology risks	
Strategic	Research and development Business strategy risk Competitors Planning Budget Risk forecast Organization structure
Compliance	Research and development Business strategy risk Competitors Planning Budget Risk forecast Organization structure
Integrity	Research and development Business strategy risk Competitors Planning Budget Risk forecast Organization structure
Economic	Research and development Business strategy risk Competitors Planning Budget Risk forecast Organization structure

**Decision rules:**

Decision rules were adopted from Linsly and Shrives (2006), which were employed by Konishi and Ali (2007) and Abraham and Cox (2007).

“1. A broad definition of risk is to be adopted as explained below.

" Sentences are to be coded as risk disclosures if the reader is informed of any opportunity or prospect, or of any hazard, danger, harm, threat or exposure, that has already impacted upon the company or may impact upon the company in the future or of the management of any such opportunity, prospect, hazard, harm, threat or exposure. "

2. The risk definition just stated shall be interpreted such that 'good' and 'bad' 'risks' and 'uncertainties' will be deemed to be contained within the definition.

3. Although the definition of risk is broad, disclosures must be specifically stated; they cannot be implied.
4. The risk disclosures shall be classified according to the matrix in Table A.1, and by reference to the Table 2 risk categories.
5. Quantitative risk disclosures are those risk disclosures that either disclose directly the financial impact of a risk or disclose sufficient information to enable the reader to calculate the financial impact of a risk.
6. If a sentence has more than one possible classification, the information will be classified into the category that is most emphasised within the sentence.
7. Tables (quantitative and qualitative) that provide risk information should be interpreted as one line equals one sentence and classified accordingly.
8. Any disclosure that is repeated shall be recorded as a risk disclosure sentence each time it is discussed.
9. If a disclosure is too vague in its reference to risk, then it shall not be recorded as a risk disclosure”.

## Appendix B

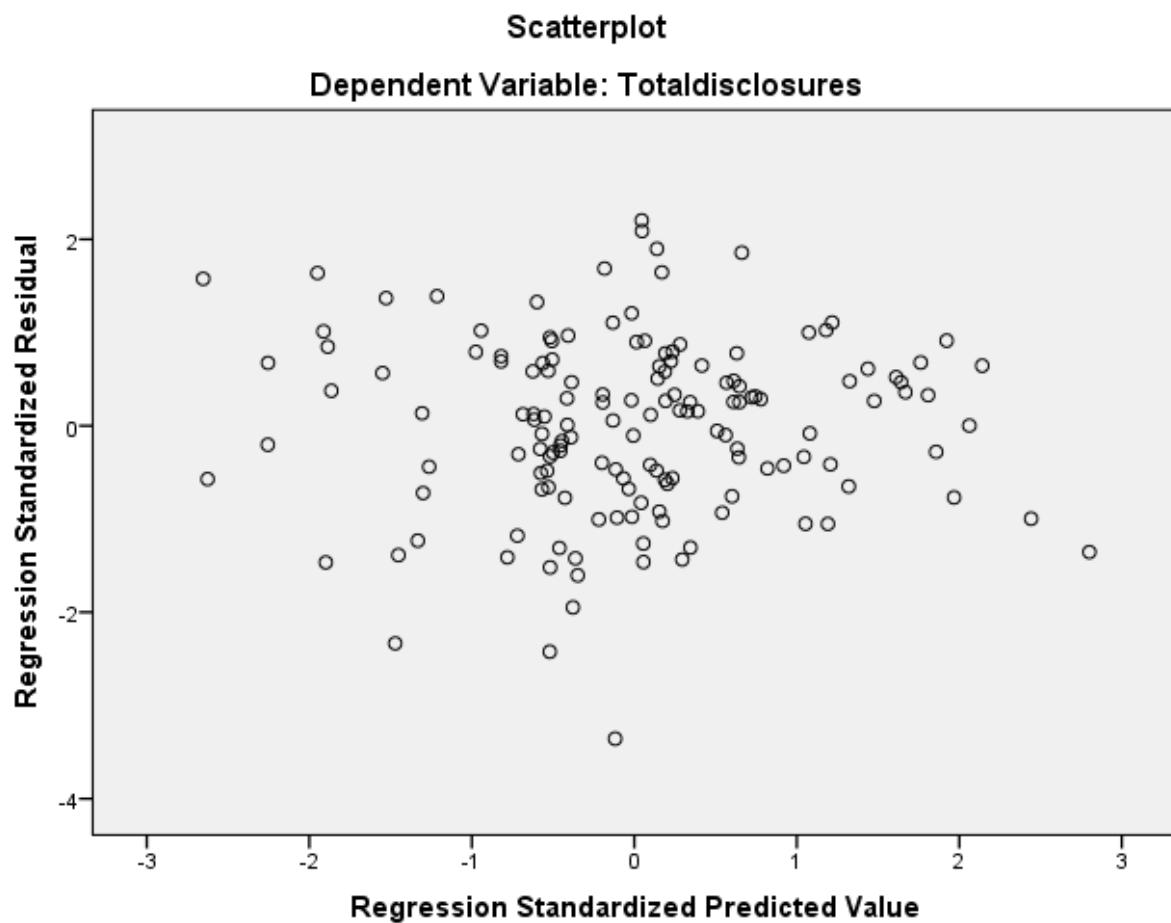


Figure B. 0.1: Scatterplot for model 1

### Normal P-P Plot of Regression Standardized Residual

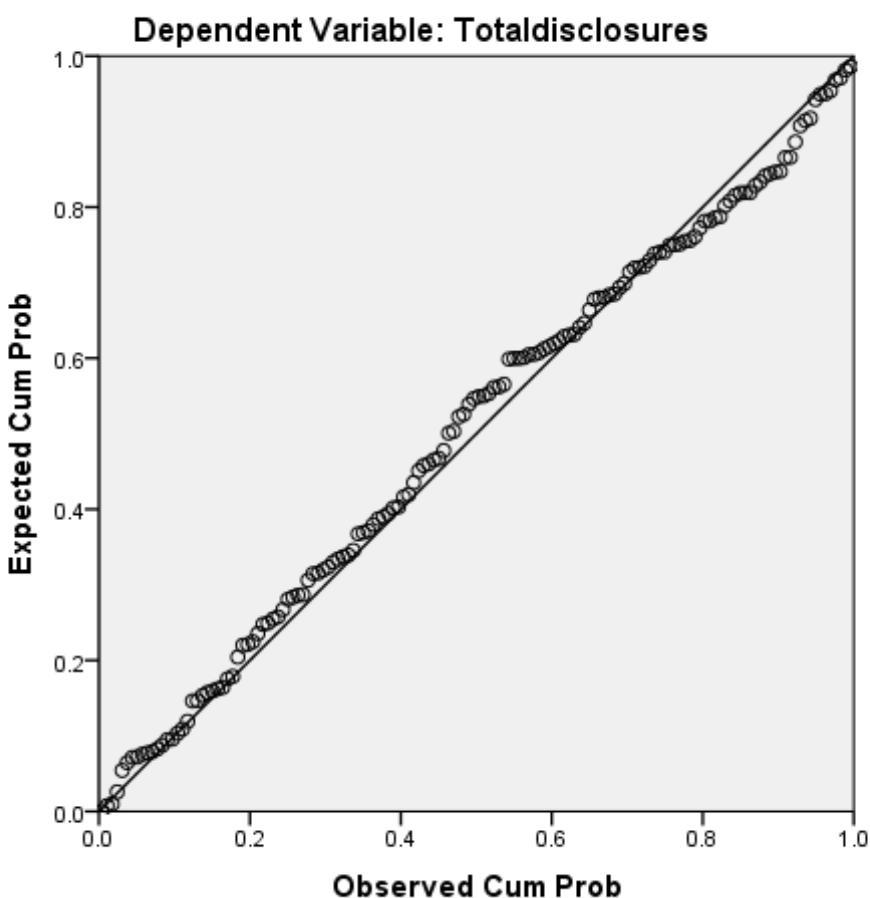


Figure B. 0.2: Normal P-P plot for Model 1

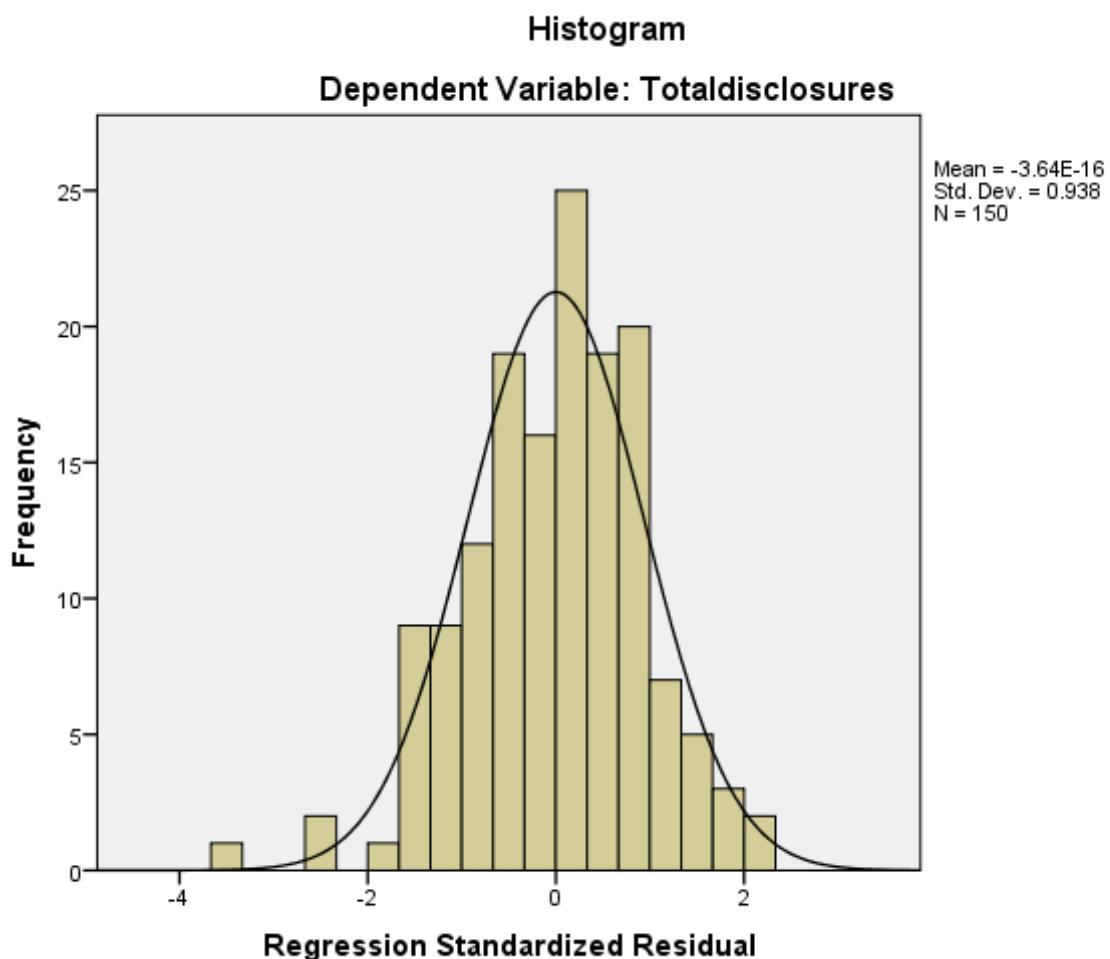


Figure B. 0.3: Histogram for model 1

## Appendix C

Examples of risk disclosures in the annual reports of the Jordanian banks:

### **Examples of risk management disclosures**

All banks, in their annual reports, provided a separate section on risk management disclosures; risk management disclosures included descriptive disclosures about the bank's policies regarding risk management and quantitative information about exposures to different types of risks (e.g. financial risks). The table below provides examples of risk management disclosures.

Table C. 1: Examples of risk management disclosures

The Bank manages banking risks through identifying the risks that it might be exposed to and methods of challenging and mitigating them. This is achieved through implementing a group of restructuring projects using best standards and banking acts that aim at separating risk management activities from those related to development of business and operation (BankofJordan, 2014, p.75)
The Bank manages its different banking risks through following comprehensive measures of risk management, including the proper control by the Board of Directors and the senior Management, in order to determine, measure, follow-up, control and report relevant categories of risks, and to maintain an adequate capital to face such risks. (JIB, 2012, p.124)
Risk management responsibilities include identification, measurement and continuous control of financial and non-financial risks that might adversely affect the Bank's performance and reputation, as well as ensuring effective capital distribution to realize the optimal rate of return against risks. (CapitalBank, 2009, p.19)

Table C. 2: Examples of quantitative risk exposure disclosures

The following table demonstrates the sensitivity analysis of interest rates: a change of 100 basis points in interest rate would have increased (decreased) net interest income by JD 334,288 .... (CairoAmmanBank, 2015, p.15)
The following table illustrates the income statement sensitivity and the accumulative change in fair value as a result of possible reasonable changes in the equity prices while assuming that all other variables remain constant: If equity price had been 5% lower/higher, the bank's equity would have increased/decreased by JD 347,534 .... (CapitalBank, 2008, p.90)

### **Role of risk committee in risk management**

Content analysis indicated the significant role of risk committees and risk management departments internal auditors in monitoring various risks that face the banks. The table below provides examples of banks indicating that the responsibility of identifying, monitoring, and mitigating various types of risks. This confirms the influence of risk committees on risk disclosure practices in Jordanian banks. Moreover, content analysis results confirm interview analysis regarding the responsibility of risk management department in preparing risk information for internal and external reporting.

Table C. 3: Examples of disclosures on the role of risk committee

The Risk Management and Compliance Committee have set the risk management framework for the Bank. Moreover, the Board of Directors has established the Risk Management and Compliance Committee, formed by the Board Members and Executive Management. Its objective is to monitor and control the various risks (credit risks, operating risks, market risks and compliance risks) or any other risks the Bank may get exposed to. (InvestBank, 2012, p.67)
The Risk Management Department in the Bank is responsible for managing risk through close alignment of the policies and procedures authorized by the Bank's Board of Directors. Furthermore, the Risk Committee, which is emerged from the board of directors, reviews the said department's activities, and continually issues reports to the Board of Directors, disclosing whether the risk is maintained according to the Bank's policies and approved and accepted risk level (AJIB, 2014, p.89)
The tasks and responsibilities of the Risks Management department are as follows: .... The provision of information on risk metrics and on the Bank's risk profile to the Board and the Senior Executive management ..... The provision of risk information for use in the Bank's public statements and reporting. (JIB, 2009, p.58)

### **Audit committee roles**

Audit committee roles were more emphasized in maintaining the accuracy of the financial statements as well as the adequacy of internal controls. In addition to its responsibility in reviewing the adequacy of the Bank's Internal and External Audits.

Table C. 4: Examples of disclosures on the role of audit committee

The audit committee shall be responsible of the following key functions: ....Reviewing the financial statements prior to their submission to the board, to ensure their correctness according to the applicable accounting standards, the central bank regulations, and laws, as well as, the sufficiency of necessary allocations. (HBTF, 2008, p.79)
The Audit Committee shall review and monitor the procedures that enable employees to

confidentially communicate any error in the financial reports or any other observation. The Committee shall ensure proper arrangements to ascertain an independent investigation and follow up. (ArabBank, 2016, p.332)

### **Examples of economic risks**

Banks have been disclosing information about the effects of the global and regional crisis on their operations, such disclosures were found in the chairman statement or in a separate sections on the performance of the global and the Jordanian economy.

Table C. 5: Example of economic risk disclosures

Arab Bank was not immune from these global developments and its implications given the fact that the Bank is present in 30 countries, many of which were affected by the global economic crisis. (ArabBank, 2011, p.4)
In regards to the economic conditions, all current indicators point to a challenging period ahead that might take a turn to the worse during 2009 due to the portents of a recession starting to emerge. This means that the banking sector will be in the eye of the storm. (InvestBank, 2008, p.9)
As conflicts in Syria and Iraq continue to weigh heavily on the Jordanian economy, with real GDP growth amounting to 2.4% during 2015 (AJIB, 2015, p. 6).

### **Examples of regulation risks**

Banks provided quantitative and qualitative disclosures regarding their compliance with different applicable regulations such as Basel II, Basel III and the regulations of the Central Bank of Jordan.

Table C. 6: Examples of regulation risk disclosures

INVESTBANK capital adequacy ratio reached 15.3% as of 2013, which is higher than the minimum required by Basel Committee of 8% and the Central Bank of Jordan of 12%. (InvestBank, 2013, p.15)
The Bank ensures maintaining legal liquidity ratios above the minimum stipulation of the Central Bank of Jordan regulations at 100% in all currencies and at 70% in local currency. (ABC, 2011, p.74)

### **Examples of defining the characteristics of risk disclosures**

Table C. 7: Examples of defining features of risk disclosures

The global crisis consequences witnessed by the international and local economy resulted in a considerable decrease in raw materials prices and accumulation of goods inventory in most companies, which led to a decreased demand volume. This in turn resulted in reducing the use of ceilings granted by most companies and therefore slightly decreasing the corporate facilities at no more than 1% of	(Operation risk) Quantitative Past Bad
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the portfolio balance at the end of 2008 (ABC, 2009, P.20)	
The Banking sector faces fierce competition in terms of attracting new client deposits causing an increase in its cost, in addition to the competitive pricing provided by Banks for its services (JordanCommercialBank, 2012, p. 12)	(Operation risk) Qualitative Past Bad
It is also worth noting that, in 2008, the Jordanian banking sector will see the implementation of the Basel II framework which will further reinforce banks' capital strength with respect to credit and operational risks, as well as the adoption of the corporate governance guidelines issued by the Central Bank of Jordan, in line with leading edge practices in this field (HBTF, 2007, P.15)	(Regulation risk) Qualitative Future Good
These accomplishments were crowned with the Bank's choice of a new Core Banking System, which is widely considered as the most modern, comprehensive and flexible system in the world, representing the technological platform for launching the Bank's organizational restructuring, thus providing valuable opportunities to expand our local and regional reach safely and professionally (AhliBank, 2012, p.7)	(Technology risk) Qualitative Past Good
This item represents risk reserve taken according to Palestine Monetary Authority at a percentage of 15% from annual net income after tax, for the purpose of supporting the Bank's capital in Palestine and to face risks related to Banking sector. This reserve will accumulate until reaching 20% of the paid up capital.(JordanKuwaitBank, 2014, p.63)	(Regulation risk) Quantitative Non time Good
Keeping on the continuous endeavour to improving the quality of assets, risk management, and compliance control (JIB, 2016, p. 38)	(Integrity) Qualitative Future Good
In dealing with the harsh economic realities of 2009, which culminated from the Global Financial Crisis and the circumstances of the Bank, we adopted a prudent policy regarding accounts that had difficulty in fulfilling their obligations by designating adequate provisions for non-performing loans, which totaled JD 19.2 million 9 (CapitalBank, 2009, p.10).	(Financial) Quantitative Past Good

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