RISK DISCLOSURE PRACTICE IN SAUDI NON-FINANCIAL LISTED COMPANIES

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Abstract

This study makes a valuable contribution to the existing literature on corporate risk disclosure (RD) in emerging economies with a focus on the Saudi Arabian economy in the context of the Middle East. The vast majority of RD literature has placed emphasis on case studies and systems adopted in developed nations. This study undertakes a detailed analysis of RD practices in Saudi Arabian non-financial listed firms by adopting a quantitative approach for the collection and analysis of the datasets using a sample of non-financial firms listed on the Saudi Stock Exchange (Tadawal) over the period of 2010 to 2014. The study adopts a self-constructed unweighted risk disclosure index utilised in the measurement of risk disclosure. The index thus comprises of 11 main categories and a total of 47 sub-items. The main findings show that the average level of (RD) among all the samples is 17%, the maximum is 55%, and 10 firms did not make any RD at all, and of the majority that do, 63% of the information pertains to financial risk disclosure and related risks and the other 37% to non-financial risk disclosure. The trend for RD over the five-year period of study shows that most companies experienced an increase in their risk reporting activity.

Keywords: Risk Disclosure, Risk Disclosure Practice, Risk disclosure indices, Risk measurement, non-financial firms, Saudi Arabia

1. INTRODUCTION

Risk reporting is an important part of corporate disclosure practice, which gives details of risks associated with investment options for a particular company. Most of the existing literature on risk disclosure (RD) places emphasis on case studies and systems adopted among developed nations. This study seeks to provide additional data to the literature pertaining to corporate disclosure of risks in emerging economies with emphasis placed on the Middle East, particularly on Saudi Arabia. Specifically, it integrates a detailed analysis of risk disclosure practices in non-financial listed firms in Saudi Arabia. The study takes the position that the integration of an analysis of risk disclosure practices in an emerging market for capital remains instrumental in the development of additional knowledge pertaining to risk disclosure. Analysts maintain that developing stock markets have the highest potential for market variation in practice due to the existence of a vast environment in comparison to capital markets in developed nations. Capital markets in developed economies such as USA, Canada, Germany, and… etc. are characterised by high levels of efficiency maintained by the existence of strong regulatory frameworks together with the existence of financial reporting and corporate governance frameworks that are well-developed. According to (World Bank, Doing Business, 2012) developing capital markets however, tend to have poor regulatory frameworks compared with developed economies. This can lead to the development of a market characterized by poor regulation, compliance, enforcement and transparency, which limits the levels of efficiency experienced in that market. Richard & Welker (2001) state that in order to develop an efficient capital market, the markets need to incorporate comprehensive and transparent disclosures necessary for enhancing the operational processes.

The Saudi market is a developing market, so this provides scope for the development of an even more intricate and informed regulatory framework. Both, the conceptual framework of accounting, which was implemented in 1986, and the institution of the Saudi organisation for Certified Public Accountants (SOCPA) in 1992 were instrumental in supporting the development of the profession of accounting and auditing in Saudi Arabia. In addition, the process influences the issuance of a governance code in 2006. These factors can be considered to be necessary in enhancing the financial reporting practices adopted in the market, which are in turn vital in influencing the quality of accounting disclosure.

Fama & French (1997) argue that emerging stock markets tend to be inefficient and risky, but that they may incorporate higher returns in

comparison to the returns derived from developed markets. Hooke (1999: 447) argues that the majority of foreign economies located in developing countries are identified as being emerging markets, and are therefore considered to be experiencing faster expansion in comparison to the US economy.

Especially the global financial crisis during the latter years of the previous decade, uncertainties and risks in stock market investments have been growing in the Kingdom. Shareholders and regulators have therefore been placing increasing pressure on companies to disclose risk information and provide other necessary information to reduce uncertainty. The advantages and disadvantages of risk disclosure therefore have a critical role in determining the nature of risk disclosure practices. Consequently, the field of risk reporting is also becoming of increasing importance to investigators' decision in term of the potential risks associates with their investment (Bao and Datta, 2014).

The motivation behind pursuing this research is to examine this phenomenon and address the issues involved so as to encourage risk disclosure practices. Also, to make it easy for existing and potential shareholders and investors to interpret risk related information in order to reduce information asymmetry and improves the market liquidity (Campbell et al., 2014).

This research therefore commences with providing insight into the nature and type of risks, and to guide managers in making suitable risk disclosure practices accordingly. This study therefore also attempts to fill this gap in the literature by examining the responses of firms in enhancing both the quantity and quality of risk disclosure made and other financial information included in their annual reports, that is, not only concerning compliance with rules and regulations, but also information useful for meeting the requirements of potential shareholders and investors. This study is contending that the quantity is a satisfactory proxy for the quality of risk disclosure. With this in mind, the study seeks to address the need to enhance risk disclosure practices in the Kingdom.

Since little is known about the practice of corporate risk disclosure in the Arab world generally, and specifically in countries within the GCC, this study, which is focused on the context of Saudi Arabia and on risk disclosure by non-financial listed firms, has the potential to be pioneering. The importance of this study is established further by the fact that Saudi Arabia is among the world's most rapidly emerging markets at 19th position and accounting for 25% of the total GDP of Arab economies; its having the largest economy in the MENA region, and the development of Saudi Arabia as a leading and successfully developing economy over the past few decades (Alshehri & Solomon 2012). These conditions of Saudi Arabia make this a potentially valuable study.

This study aims to undertake an in-depth exploratory process to reveal details of corporate risk disclosure levels and practices as expressed in the annual reports of non-financial firms listed on the stock exchange and operating in the Kingdom of Saudi Arabia. In this vein, the analysis undertaken by the study seeks to meet the following objective: to initiate an analysis of risk disclosure reporting requirements through conducting an investigation of risk disclosure practices and their applicability to the Saudi environment. That's to develop a viable measurement parameter pertaining to the practice of risk reporting within the annual reports of non-financial listed firms in Saudi Arabia.

The current study is expected to offer some contributions to risk disclosure literature of non-financial listed firms operating in Saudi Arabia. The contributions will be achieved through the analysis of previous studies, the majority of which relate experiences of varied limitations attributed to the existence of incomplete evidence by placing emphasis on specific financial disclosure items, such as market risk disclosure (Linsmeier et al., 2002), and voluntary risk disclosure (Beretta & Bozzolan, 2004; Abraham & Cox, 2007; Elzahar & Hussainey, 2012). However, many of these studies have only conducted a limited analysis of the influence of risk disclosure to the process (Elshandidy et al., 2013; Kruk, 2009; Mokhtar & Mellett, 2013). This study makes a contribution to the literature on risk reporting by adopting a comprehensive risk disclosure index (see Appendix 1) that was developed by the researchers for measuring risk disclosure practices within the annual reports of non-financial listed firms operating in Saudi Arabia. Furthermore, a survey of the current literature suggests that research on risk disclosure has focused heavily on developed countries (for example, Choi et al., 2013; Hunzike, 2013; Elshandidy et al., 2013). Other studies that have been conducted on Gulf Countries in the GCC (Gulf Cooperation Council) have focused heavily on financial listed firms (for example, Hassan et al., 2009; Abdallah et al., 2015; Al- Maghzom et al., 2016). To the best of the researchers' knowledge, there is no previous study that has investigated the economic consequences of risk disclosure within the annual reports of non-financial listed firms operating in Saudi Arabia.

2. THEORETICAL FRAMEWORK

Nowadays, companies tend to make corporate disclosure or risk in order to provide a comprehensive picture of financial and non-financial information pertaining to their company. This information, which is mainly directed to owners and external users can be mandatory, as required by accounting standards or law, or else voluntary, or as necessary in response to internal decision making or external pressures (Ali et al., 2007).

In explaining the importance of theories, Christensen & Demski (2003) state, "Theory refers to a set of knowledge that explains or purports to explain a set of phenomena. It is a coherent description or set of principles that illuminates or explains some particular set of phenomena." Several theories have been devised to explain managerial motivation to disclose more information. Notable among them are risk disclosure theories. These can be divided into two major categories: 1) agency theory, and 2) signalling theory.

One of the main agency related problems of concern is information asymmetry. This arises potentially from the willingness of each agency party to conceal information from the other party. In this scenario, agency cost increases because management seeks to enhance its own interests instead of the interests of its shareholders. As described by Arnold and de Lange (2004), information asymmetry occurs when agents (management) enjoy a competitive advantage with respect to information within the company relative to that of the principals (owners).

As advised by Demski (1974), managers should disclose more information about the company through its annual report in order to differentiate itself from other poorly managed companies. That is, disclosing more information is a possible way of mitigating the impact of agency problems (Marston, 1996). This decision of making a disclosure may however be problematic because agents may only be willing to disclose that information which serves their interests, and in so doing, they may ignore other relevant information which they think would place them in a disadvantaged position.

Linsley & Shrives (2000) discuss the relationship between risk disclosure and agency theory. Their study indicates that the conflicts between agents and principals may be attributed to the level of information required to be disclosed. Principals may receive a limited amount of information about a firm's risk and on how managers can deal with them. Consequently, it is thought that this may encourage the principals to monitor the performance of management in order to ensure they act based on their interests. This could put some pressure on the management for them to disclose more risk information voluntarily, so as to satisfy the principals.

With respect to voluntary disclosure, signalling theory predicts that in the presence of information asymmetry, investors may be unable to differentiate high quality companies from low quality companies. The former are considered as those with high quality investment projects, and the latter as those with low quality investment projects. According to Scott (2003), investors may consequently withdraw from the capital market, or else they may offer an average or low price for any security. That is, high quality companies tend to have greater incentives that encourages them to make a greater disclosure of more information to the capital market so that they can distinguish themselves from their lower quality competitors (Campbell et al., 2001). As a result, the higher quality companies often receive an above the average market valuation, whereas it can be very costly for lower quality companies to do the same signalling to the capital market (Clarkson et al., 1994). Deegan & Unerman (2006) describe this perspective as the 'market for lemons perspective'.

Companies with a superior record of risk management performance thus have greater incentives for them to disclose more risk information so that they can gain advantages from reporting this additional information in terms of share price upward adjustments (Woods & Reber, 2003).

Linsley & Shrives (2005) take the position that as with agency theory, signalling theory is generally suitable for explaining managers' reactions toward voluntary risk disclosure. According to Shrives & Linsley (2003), managers may choose to disclose a greater amount of risk information than they would normally for signalling to the market about the abilities of their companies in managing risk as compared to other companies, and to thus demonstrate their skills in risk management. Consequently, such voluntary disclosure may turn out to be an incentive for other companies to opt for more voluntary risk information disclosure than they would otherwise.

3. RISK DISCLOSURE REPORTING: LITERATURE

3.1 Mandatory and Voluntary Risk Reporting

Corporate risk disclosure is covered under two main categories, which includes both mandatory and voluntary risk disclosure. Mandatory risk disclosure refers to the risk reporting process that remains mandated by existing rules and formats developed by regulators considered to be instrumental for enhancing the level of transparency of financial reporting. The information required by corporate risk disclosure is considered as crucial for encouraging and restoring investor confidence in the market and companies. However, the lack of adoption of mandatory requirements pertaining to particular risk regulations or guidance on risk disclosure may encourage the adoption of a broader disclosure of risk by managers of information recommended by professional accounting bodies as guidance that may lead to making voluntary disclosure. Voluntary risk disclosure is considered to be risky reporting as compared to mandatory risk reporting. Beattie, McInnes, & Fearnley (2004) suggest that the relay of risk disclosure information in annual reports can take the form of either quantitative or qualitative, financial or non-financial, and historical or forward-looking information.

Requirements pertaining to mandatory risk disclosure reporting varies between different countries. The differences have necessitated the adoption of numerous studies pertaining to risk disclosure practices. For instance, the (FRR) No. 48, was issued in 1997 by the Securities and Exchange Commission (SEC)1 (Doyle et al., 2007; Ashbaugh-Skaife et al., 2007; Peters & Romi, 2012; Rice & Weber, 2012). Several studies have been carried out on risk disclosure by European corporations following the International Financial Reporting Standards (IFRSs) (Beretta & Bozalan, 2004; Linsley & Shrives, 2006; Abraham & Cox, 2007; Lopes & Rodrigues, 2007; Deumes, 2008; Deumes & Knechel, 2008; Iatridis, 2008; Hill & Short, 2009; Rajab & Handley-Schachler, 2009; Vandemaele et al., 2009; Oliveira et al., 2011; Miihkinen, 2012; Hunzike, 2013; Elshandidy et al., 2013). Table 1 provides a summary of the mandatory requirements in a select number of developed countries.

Table 1. Mandatory risk reporting requirements in various countries

Country	*Mandatory Risk Reporting requirements*	*Reference*
USA	SEC 1997 Financial Reporting Release, No. 48 (FRR48)	SEC (1997)
UK	Companies" Act 2006	ASB (2007)
Germany	The German Commercial Code (HGB), § 289(1), 315(1) in 1998, GAS 5	Kajuter et al. (2008)
Australia	Corporate Governance Code, AASB7	Taylor (2011)

According to Kalif & Hussainey (2014), the process of mandatory risk disclosure requires that firms adhere to the stipulations pertaining to risk reporting. The process expects that firms operating under the same mandatory risk-reporting requirements adopt the same policy for making risk disclosure. The process seeks to limit the level of variation identified pertaining to mandatory disclosure among firms. The process further seeks to limit the level of influence of corporate characteristics on the risk reporting process.

The process for making voluntary risk disclosure provides for companies being given greater incentives to encourage the communication of information relating to risk disclosure. It is expected that this process provides for higher chances of gaining 'political visibility', and a high degree of financial risk. Therefore, by adopting a regular practice of making disclosures, the process seeks to influence the adoption of a regulated process that can lead to developing a balance between corporate characteristics and risk reporting. Ahmed & Courtis (1999) suggest that a disclosure regime (mandatory versus voluntary) is intended to develop a balance between the disclosure and corporate characteristics.

Lajili & Zegal (2005) regard firms analysing voluntary risk disclosure as undergoing a process that provides managers with additional freedom to incorporate the elements they seek for making voluntary disclosure. The researchers maintain that the majority of mandatory rules pertaining to risk disclosure adopted in Canada and the U.S. place emphasis on undertaking an analysis of the types of financial risks and commodity or market risks. The study identifies nonfinancial risks as being disclosed on a voluntary basis through the MD&A sections provided within the "materiality" and "significant risk exposure". This process provides the management with an opportunity to exercise their preferred level of discretion pertaining to the selection of information to be publicly disclosed and which holds relevance to institutions external to the organisation.

3.2. Financial and Non-Financial Risk Reporting

According to Souabni (2011), the information provided in risk reporting may be divided into two main groups: financial risk information and non-financial risk information. Soubani (2011) argues that the quantification of financial risk is non-complex, but that non-financial risk may not be easily quantified. Financial risk disclosure describes a process whereby financial statements necessary for enhancing the financial analysis process are backed up. Financial risk disclosures describe risk disclosures that involve developing a direct link to financial statements and which involve a direct effect on the assets, liabilities and cash flows of a firm. Lajili & Zeghal (2005) suggest that in some regions such as Canada, companies often develop a process that influences the disclosure of financial risks more than non-financial risks (Lajili & Zeghal, 2005). In contrast, Konishi & Ali (2007) reveal that Japanese firms provide more financial disclosures of non-financial risk related information. Linsley & Shrives (2006) undertook a study on risk disclosure among UK firms and estimated the overall level of disclosure to be 26.7% whereas non-financial risk disclosure was estimated to be 73.3% of the overall disclosure.

In another study, Barakat & Hussainey (2013) investigated the direct and joint effects of bank governance, regulation and supervision on the quality of risk reporting information in the banking industry, as proxied for by Operational Risk Disclosure (ORD) quality in European banks. Al-Maghzom et al. (2015) examined both financial and non-financial risk disclosure practices in Saudi listed banks. In contrast, this study also covers both financial and non-financial risk disclosure practices, but within Saudi non-financial listed firms.

3.3. Proxies for Measuring Risk Disclosure

The studies examined have made use of varied measures for disclosure, which researchers have subsequently used as a basis for their theoretical concepts thus rendering the direct measurement process complex. The adoption of a range of literature pertaining to disclosure influences the provision of numerous possible proxies that seek to measure the extent of disclosure. Several studies mentioned in the literature integrate the various individual measures of risk disclosure including the disclosure index and the content analysis techniques used to provide a single measure (Marston & Shrives, 1991; Jones & Shoemaker, 1994). Several studies have thus sought to integrate an analysis of all known measures of risk disclosure (Healy & Palepu, 2001; Beattie et al., 2004).

Krippendorff (1980) maintains that content analysis has become a vital research technique that is now utilised in making valid inferences from data to their context that are also replicable. Krippendorff (1980) contend that content analysis remains valuable to researchers in the development of an informed understanding of the particular phenomena through the inclusion of conceptual content analysis and relational content analysis. Content analysis can also be integrated in a manual or automatic process or through a combination of both methods. Some studies have sought to utilise a manual method for conducting Content Analysis (Beretta & Bozzolan, 2004; Linsley & Shrives, 2006). The limitation favours the utilisation of automated content analysis in the majority of research processes (Abrahamson & Amir, 1996; Breton & Taffler, 2001; Kothari, et al.,

2009; Elshandidy et al., 2013). However, several studies have combined both methods of content analysis (e.g., Hussainey, et al., 2003; Beattie & Thomson, 2007). Lajili & Zegal (2005) contend that the utilisation of content analysis for risk disclosure pertaining to non-financial types as the process influences the identification of the extent and volume of such disclosures. This study is using the manual content analysis to measure risk disclosure and using a sentence as a coding unit.

Marston & Shrives (1991) consider that disclosure indices refer to lists of selected items that may be disclosed in the reports of companies. Hassan & Marston (2010) define a 'disclosure index' as a research instrument utilised in the measurement of the extent of information reported in a disclosure through the analysis of an individual entity in relation to a selection of particular items of information. The disclosure index thus identifies an objective measure of disclosure, as opposed to a subjective one (Anis et al., 2012). This purportedly develops its basis on a set list of items that may be disclosed in the reports of firms (Marston & Shrives, 1991).

A disclosure index integrates mandatory information items as well as voluntary information with the information listed in indices utilised in the identification of the required information pertaining to the reporting process including one or more disclosure means or tools that may include annual reports or analyst reports. The index items are applicable either to the overall disclosure means (such as annual reports), or to just a part of the annual report (such as a voluntary disclosure section). Additionally, the information may be focused on one sort of information pertaining to risk disclosure.

Earlier studies have identified a high level of variance experienced pertaining to the amount of variation in the construction of disclosure indices. The analysis maintains that the process can be considered to be different in terms of the degree of research involved in the construction process of the index. Additionally, the identified variances may be attributed to the adopted measurement approach; to the range of industries or countries, the type of information they cover, and context. Existing variances have influenced the adoption of studies that have sought to cover only the section of mandatory disclosure (e.g., McChlery, et al., 2015), whereas others have sought to solely investigate the section of voluntary disclosure (e.g., Cheung, et al., 2010). Determination of the items as weighted values may be one of the most vital decisions adopted pertaining to the construction of the index. Accounting research recommends that both types of weighted and unweighted disclosure indices are used (Owusu-Ansah, 1998; Hassan, 2009; Mokhtar and Mellett, 2013).

In relation to the research, the present study adopts the unweighted disclosure index approach, as the study does not seek to place emphasis on any particular user group (Alsaeed, 2006; Naser et al., 2006). Rather, the study has sought to address all users of annual reports while working on the assumption that all users remain equally important (Oliveira et al., 2006).

4. METHODOLOGY

The underlying research philosophy or paradigm that guided this study is positivism, which was applied using a quantitative approach and deductive research design, and involved a content analysis of documents. The data for the study was obtained from within the annual reports of a sample of 88 non-financial listed firms based in the Kingdom of Saudi Arabia during the period from 2010 to 2014, and a total of 440 observations were made. The research methodology was applied in three areas of the study, as follows: examination of risk disclosure practices among non-financial listed firms operating in Saudi Arabia based on the developed risk disclosure index comprising of 11 categories.

The area involves an examination of risk disclosure of Saudi Arabian non-financial listed firms based on the risk disclosure index. This index comprised of checklists of disclosure items that are included in companies' annual reports. Risk disclosure indices were then developed specifically for obtaining a measure of the level of risk disclosure observed in the annual reports. The annual reports were then subjected to a content analysis of information pertaining to risk disclosure. This enabled the quantity of risk related information to be ascertained and then classified. A structured disclosure index was created for identifying and classifying the relevant risk disclosures, which consisted of 11 risk categories.

4.1. Research Design

This section details the research design adopted in this study.

4.1.1. Measurement of Risk Disclosure (Risk Disclosure Index)

The study adopts a self-constructed unweighted risk disclosure index utilised in the measurement of risk disclosure in Saudi Arabian non-financial listed firms. The risk disclosure process incorporates the following sub-processes: 1) Risk-related requirements of the accounting standards, such as IAS 1, 21, 32, 36 and 39, and IFRS 7; 2) Saudi Arabia risk disclosure-related regulations and requirements; 3) Risk disclosure items that have been identified in the risk disclosure literature (e.g., Linsley & Shrives, 2006; Taylor, Tower, & Neilson, 2010); and 4) A comprehensive review of the annual reports of a random sample of 45 firms listed on the Saudi stock market during the period 2010 to 2014. The risk disclosure index thus comprises of 11 main categories and a total of 47 sub-items, and each sub-item is binary-coded (i.e., it is assigned a value of either 1 or 0).

4.1.2. Developing the Self-Constructed Disclosure Index for Measuring Risk Disclosure

A lack of stipulated regulations pertaining to risk disclosure limits the effective selection of risk disclosure items. The process causes a reduction in the degree of subjectivity, which incorporates certain steps. The initial step involves analysis of

the risk-related requirements by accounting standards, which have been utilised in the assessment of the quantity of risk disclosure. The process incorporated IAS 21, 32, 36 and 39, and IFRS 7, as shown in Table 2. The second step integrates an analysis of the Saudi risk disclosure-related regulations and requirements. The developed regulations are as follows: 1) accounting related regulations and accounting standards (requirements of CMA and SOCPA1), and 2) review of the corporate governance code in Saudi Arabia.

Table 2. Risk-related requirements by accounting standards

Source of standard requirements for risk disclosure index items used in the literature	*Studies that refer to the item*
IAS 21 Effects of changes in foreign exchange rates IAS 21.47 encourages the disclosure of a foreign currency risk management policy.	Lajili & Zeghal (2005)
IAS 32 Financial instruments: Presentation This requires information on credit risk, liquidity risk, cash flow risk, market risk, currency, fair value, interest rates, and price.	Taylor, Tower, & Neilson (2010) Oliveira, Rodrigues, & Craig (2011)
IFRS 7 Financial risk disclosure principle The significance of financial instruments with respect to financial position and performance.	Lipunga (2014) Taylor, Tower, & Neilson (2010) Oliveira, Rodrigues, & Craig (2011) Hassan (2009)

In the third step, the study integrates a review of the amount of risk (e.g., Linsley & Shrives, 2006; Hassan, 2009; Taylor et al., 2010; Oliveira, et al., 2011; Mokhtar & Mellett, 2013). This process affects the identification of risk-related items, which have been utilised in the assessment of the level of risk disclosure. This study seeks to integrate an effective assessment of comprehensive risk, which may influence the selection of risk disclosure item categories, and also identify financial risks faced by the firms. The fourth step involves the random selection of a sample of annual reports of 45 non-financial firms listed on the Saudi stock exchange. The process reads the annual reports to minimise the potential of bias. This process covers 11 categories that may influence the presentation of the risk disclosure index derived from the review of literature (e.g., Linsley & Shrives, 2006; Mokhtar & Mellett, 2013). The process integrates an analysis of an existing sample of firms that may influence the development of existing variances pertaining to the risk sources and types that a firm face, including both financial and non-financial information.

The risk disclosure index is expressed as follows:

$$RD=\Sigma ni = di\ 1 \qquad (1)$$

where, d = 1 if the item is disclosed, 0 = if the item is not disclosed; n = number of items; i = firm.

4.1.3. Sample Selection and Data Collection

The sample of the study comprises of non-financial listed firms in Saudi Arabia during the period from 2010 to 2014. The study examined 88 non-financial firms that were listed on the Saudi Stock Exchange (Tadawul), as of 31 December 2014, comprising of a total of 440 observations. The study utilises a sample based on the following criteria: (i) The availability of the firms' annual reports for all five years from 2010 to 2014 on Tadawul's website; (ii) The availability of the financial data of the firms and their stock market information over the five-year period; and (iii) The study excluded all financial firms based on the Industry Classification Benchmark (ICB) definition and classification of financial firms.

The sample period is chosen because in 2006 the Capital Market Authority (CMA) released the Saudi Corporate Governance Code (SCGC). Furthermore, after the issuance of the governance regulations, the CMA decided making some articles of the corporate governance regulations, related to risk disclosure, mandatory on all companies listed on (Tadawul) effective from January 2012 and 2013 (SCGC, 2010). Therefore, the study covers the period from 2010 to 2014 which allows to investigate the effect of corporate governance mechanism, before and after the mandatory application, on the extent of transparency in the risk disclosure. Secondly, the study being undertaken depends on analysing risk reporting within annual reports using sentences as a coding unit, which have been commonly used on the literature (e.g., Mokhtar & Mellett, 2013; Barakat & Hussainey, 2013). Milne and Adler (1999, p.243) support the use of the sentence as a coding and measurement unit because 'using sentences for both coding and measurement seems likely, therefore, to provide complete, reliable and meaningful data for further analysis'. However, the reasons for selecting annual reports as a main source of information for analysing data are as follows: 1) all firms are required to submit their annual reports on an annual basis, which is usually two to four months after the financial year end; 2) annual reports are official documents and are considered to be a major source of communication for various users of accounting information; 3) the annual reports are comparable among different firms; and 4) annual reports are the basis for other sources of information, such as reports issued by analysts. Prior research (e.g., Lang & Lundholm, 1993; Botosan, 1997) indicates that disclosure scores in annual reports are correlated positively with other media of financial communications.

Saudi Arabia is chosen as the geographic focus of this study because it represents emerging economies well for several reasons:

1) The Saudi economy represents 25% of the total Arab GDP, and is considered to be one of the world's 20 largest economies (ranked at 19th place), and it is the largest economy in the MENA region;

2) The Saudi government has been implementing extensive steps aimed at improving its investment climate so as to make it more appealing for both domestic and foreign capital funds (according to The World Bank, Saudi Arabia

is the easiest place to do business in the whole MENA region);

3) The Saudi stock market has the highest market capitalisation in the Arab region; is the largest emerging market, and is ranked at 17th worldwide in 2012; and 4) The issuance of the Saudi Corporate Governance Code (SCGC) in 2006 represented a major landmark in the development of accounting and governance requirements.

4.2. Self-Disclosure Index for Measuring Risk Disclosure

According to Weber (1990), a classification procedure ought to be valid and reliable, and these two qualities of a content analysis approach should be reviewed carefully. Validity concerns the extent to which a measuring instrument measures what it is intended to measure (Carmines & Zeller, 1991), and reliability concerns the consistency of the measurements (Colton & Covert, 2007: 65). Reliability allows different coders to code the same text in the same manner (Weber, 1990), i.e. consistently. In other words, if there is consistency, then the measurement is also more likely to be reproducible.

4.2.1. Validity

In order to achieve both face and content validity, and thereby measurement validity, two basic steps are recommended. The first step is to use the analytical analysis methodology to validate the risk index score, and the second step is to get some reviews for the coding scheme by some experts in the field of study (Neuendorf, 2002; Bryman & Bell, 2003). This study follows both of these steps for establishing face and content validity.

A measuring instrument can be validated by analytical analysis involving empirical evidence for support, as suggested by Shevlin (2004). This validity test deals with the extent to which the disclosure measurement is associated with theoretical expectations (Carmines & Zeller, 1991). Research conducted previously on disclosure (Botosan, 1997; Brown & Tucker, 2011) adopts an analytical analysis methodology for validating measures of disclosure. They suggested their measure of disclosure would be valid if associated with firm-specific characteristics.

Botosan (1997) for instance, developed a disclosure index for measuring the level of voluntary disclosure provided by firms in their annual reports. She claimed that her disclosure index is capable of measuring the level of voluntary disclosure when related to some characteristics of the firm identified in previous research, such as size or type of auditor. Her disclosure index is validated by examining the association between his index and the firm specific characteristics of size, exchange listing status, audit size and leverage.

In order to ensure the content validity of the risk disclosure index, it is reviewed independently by two expert researchers. After receiving the independent researchers' comments and suggestions, 24 items were deleted, so as to avoid repetitive and biased items. The final disclosure index comprised of 47 items. A disclosure index may be considered as valid if it is capable of measuring what it claims to measure (Field, 2009). The index used in this study relies on a measure that is capable of measuring what is intended to be measured. It is therefore claimed that the research instruments are valid.

4.2.2. Reliability

Krippendorff (2004) identified three types of reliability in the context of a semi-objective approach, namely stability, reproducibility and accuracy. Stability in this sense concerns the extent to which a coded text by a single coder leads to the same result repeatedly, reproducibility, also called inter-coder reliability, is the extent to which replicating coding procedures by multiple coders can give the same result, and accuracy to the extent to which coding procedures cause the same desired outcomes when assessing the coders' judgement relative to a standard or norm. Assessing these types of reliability requires adopting a range of procedures. For instance, 'test retest' procedures may be used for measuring stability, assessing proportion of coding errors between different coders for measuring reproducibility, and a predefined standard is necessary for measuring accuracy (Milne & Adler, 1999). Of the three forms of reliability, stability is arguably the weakest because a single coder does all the coding, and although accuracy is the strongest, it is usually difficult to measure because of a lack of predefined standards and norms (Weber, 1990). For these reasons, reproducibility is often used for assessing reliability.

Reliability however, can become a major concern if the scheme is human-scored (Marston & Shrives, 1991; Healy & Palepu, 2001). Even a computerised content analysis may have an issue of reliability, as this depends on the reliability of the coding scheme and the risk disclosure index designed by the researchers (Sydserff & Weetman, 1999). Furthermore, as shown in the literature review, a content analysis may also be considered as not being reliable if it is only conducted once or is conducted only by a single person (Neuendorf, 2002; Hussainey et al., 2003). Reliability is therefore an important criterion by which the quality of research can be judged, and establishing reliability may not be easy, as it depends on training in conducting research, specification of the categories, and the complexity of the coding scheme (Bauer, 2000).

In order to ensure that the risk disclosure index was reliable, two independent researchers cooperated with the main researchers in scoring a selected firm randomly for a five-year term of investigation. The three sets of scores were then compared. Minor differences that were noted in the compliance scores were found to be insignificant, as the researchers' disclosure indices were agreed upon by all four researchers. A similar method was adopted by Marston & Shrives (1991) who claimed that index scores give to a firm can be considered as reliable if other researchers are able to replicate the procedure to obtain the same results. Table 3 presents samples of risk disclosure information contained in the annual reports of non-financial listed firms operating in Saudi Arabia.

Table 3. Samples of risk disclosure information in annual reports

Company	*Risk Category*	*Example as per on Annual Reports*	*Industry*	*Year*
Zamil Industrial Investment Co.	Financial risk	*Currency risk.* The risk that the value of financial instruments will fluctuate due to changes in foreign exchange rates. The consolidated balance sheet can be affected by movements in the exchange rate of Saudi Riyals against currencies of these foreign countries from investment in them.There are also transactional currency exposures that arise mainly from sales or purchases by foreign subsidiaries in currencies of the respective countries that are not pegged with the functional currency of the parent company.	Building & Construction	2010
Saudia Dairy and Foodstuff Co.	Non-Financial risk	*Operational risk* is "the risk of loss arising from systems failure, human error, fraud or external events. When controls fail to operate effectively, operational risks can cause damage to reputation, have legal or regulatory implications, or lead to financial loss. The Company cannot expect to eliminate all operational risks, but it endeavors to manage these risks through a control framework and by monitoring and responding to potential risks. Controls include effective segregation of duties, access, authorisation and reconciliation procedures, staff education and assessment processes, such as the use of internal audit."	consumer goods	2013

5. ANALYSIS AND DISCUSSION

This section presents and discusses the results of the analysis, and the results based on the outcome of descriptive statistics of the risk disclosure index. This was adopted as the main tool for measuring risk disclosure information within non-financial listed firms operational in Saudi Arabia during the period from 2010 to 2014.

5.1. General Descriptive Statistics

Table 4, presents descriptive statistics for the risk disclosure score in percentage (%) for Saudi non-financial listed firms for the period from 2010 to 2014. Table 6 shows the percentage of the financial and non-financial risk disclosures as a proportion of the total disclosure.

In Table 5, the results indicate that the average risk discourse level among all samples is 17%. Also, the highest risk disclosure level among all samples is 55%, and this score was recorded for Etihad Atheeb Telecommunication Company operating in the Telecommunication & Information Technology industry in the year 2014. Notably, the results show that there are some firms that did not make any risk disclosure. There were 10 such firms out of the total 440 observations. This finding is consistent with previous studies (Hassan, 2009; Dobler et al., 2011; Ali & Taylor, 2014). Table 5 shows that non-financial listed companies in Saudi Arabia disclose more information about financial risk disclosure and its related risk types by 63%, and the non-financial risk disclosure score was 37% for companies included in the sample.

However, these presented results could lead to supposing that companies are disclosing the financial risk information to signal their abilities in assessing and managing the financial risks to stakeholders and market. The literature supports this finding, as financial risk disclosure is the most common type of risk (Abraham & Cox, 2007; Dobler et al., 2011; Ali & Taylor, 2014; Al-Shammeri, 2014; Abdallah et al., 2015). Nevertheless, some managers may prefer not to disclose more information about non-financial risks because they believe that such information will not be useful for their investors.

Table 4. Descriptive statistics for the risk disclosure score

	N	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*
RD	440	.00	.55	.1740	.08634

Table 5. Financial and non-financial risk disclosures as a proportion of total disclosure

Risk Category	*Average*
Financial Risk Disclosure	63%
Non-Financial Risk Disclosure	37%

Appendix 1 shows that the most reported risk disclosure sub-categories are Market risk at 23% followed by operational risk at 17%. At the other hand, the least reported risk disclosure sub-categories of disclosed risk information in the sample of companies are Environmental risk at 2%, and Information and technology risk at 2%. Furthermore, Appendix 1 indicates that the most reported risk disclosure item is credit risk disclosure at 8% (379 times) followed by liquidity risk disclosure at 8% (362 times). Notably, both of these items are under financial risk disclosure, which further supports the previous discussion. At the other end, the least reported risk items disclosed in the form of risk disclosure information in the sample of companies are 'Risk of use of products that are environmentally sensitive' (3 times) and 'Risk of intellectual rights' (5 times).

5.2. Descriptive Statistics by Year

Figure 1 shows the trend of the risk disclosure score over the sample period (2010-2014), and Table 6 presents descriptive statistics of the risk disclosure score for the same sample period separately. The average risk disclosure in 2010 was 20% with a range of 62% as maximum and 0% as minimum. In 2011, a small enhancement was reached by 3% to make the average of the risk disclosure 23%. In 2012, the average risk disclosure increased to 25% with a range of 66% as maximum and 0% as minimum. In 2013, the risk disclosure score reached 27% and kept steady in the subsequent year (2014) with a range of 69% as maximum and 0% as minimum.

Figure 1. Average risk disclosure over period of study

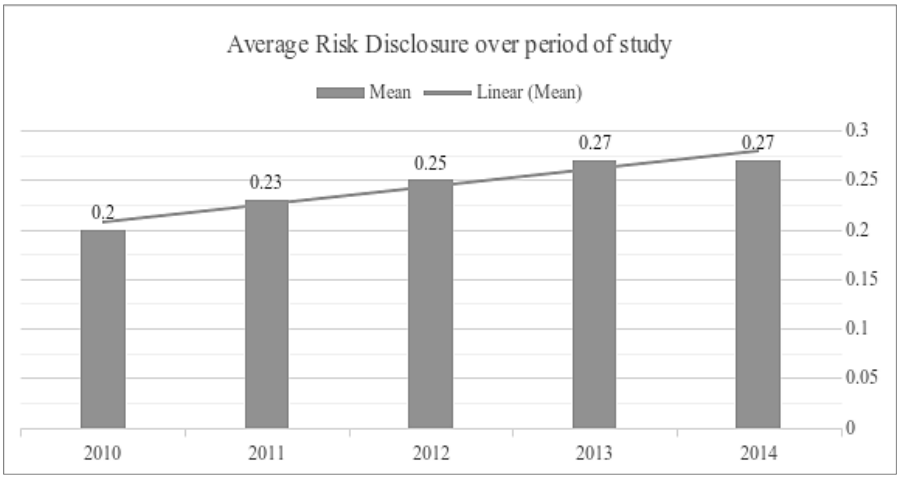

Table 6. Descriptive statistics of risk disclosure score for sample period 2010-2014

Year	*N*	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*
2010	88	.00	.62	.20	.10985
2011	88	.00	.62	.23	.11262
2012	88	.00	.66	.25	.10529
2013	88	.00	.69	.27	.11593
2014	88	.00	.69	.27	.11593
Overall	440	.00	.55	.17	.08634

Overall, the results show that most companies experienced an increase in their risk reporting activity over the sample period. This indicates there was an upward trend in the average amount of risk disclosure being made by the firms in the sample of non-financial listed firms over the period 2010-2014.

5.3. Descriptive Statistics by Industry

Figure 2 and Table 7 show the results of the average risk disclosures over all industries in the sample including the standard deviations. Figure 2 also shows the trend of risk disclosure scores, including mean, minimum and maximum among all industries in the sample. The results show that the range of risk disclosure information among all industries is 18% to 44%. The telecommunication industry has the highest score of 44%, and the consumer goods industry has the lowest score among all industries of 18%. However, it has been argued that the technology industries, including the telecommunication industry, are facing rapid changes in their new products and services, which could be leading its firms to face unexpected financial or non-financial risks. Consequently, that would increase the pressure for managers to disclose more risk information annually (Amran et al., 2009).

Figure 2. Descriptive statistics by industry

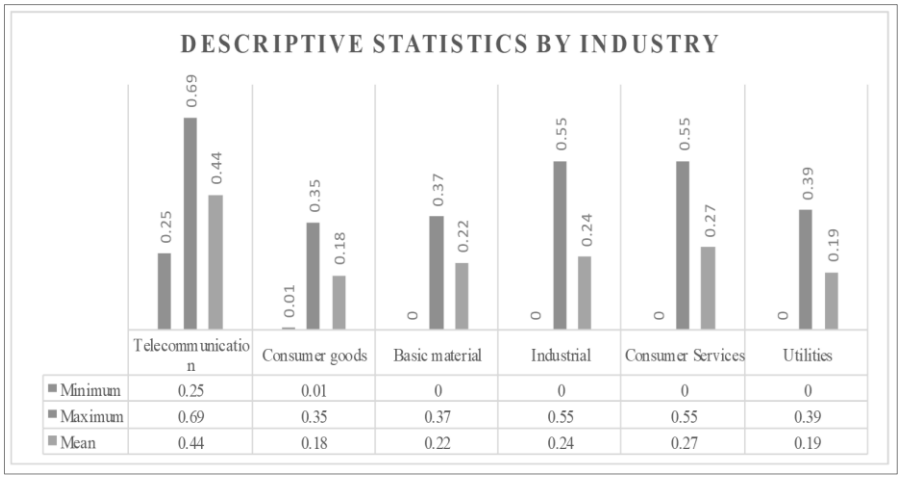

Table 7. Average risk disclosures over all industries in the sample

Industry	*N*	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*
Telecommunication	20	.25	.69	.44	.15507
Consumer goods	70	.01	.35	.18	.08257
Basic material	70	.00	.37	.22	.06475
Industrial	180	.00	.55	.24	.09970
Consumer Services	90	.00	.55	.27	.10152
Utilities	10	.00	.39	.19	.19225
Overall	440	.00	.55	.17	.08634

6. CONCLUSION

Corporate risk disclosure can be distinguished into mandatory and voluntary disclosure. Mandatory risk reporting is stipulated by rules developed by regulators for enhancing transparency in financial reporting, which helps in uniformity of reporting and limiting variation and influence of corporate characteristics on the process. Voluntary risk disclosure allows for making more and broader disclosures of risk related information by managers, as recommended by professional accounting bodies, usually in response to greater incentives. Another division of risk is between financial and non-financial risk. Financial risk disclosure pertains to financial statements and disclosures that have a direct effect on assets, liabilities and cash flows.

This also raises the issue of appropriate quantification of risk disclosure, as some claim it enhances credibility and chances of investment (Schrand & Elliott, 1998), but others claim it makes it difficult to measure certain risks (Mohobbot, 2005). The task of measuring risk disclosure has been undertaken by content analysis to make valid inferences from the data, and by developing disclosure indices, which take into account both mandatory and voluntary risk disclosure. An index also has an issue of selecting items and weighting them if not using an unweighted index.

This study adopted a self-constructed disclosure index by including all items considered as important. It is unweighted, as this reduces subjectivity and therefore also potential bias with the score, and it comprises of 11 main categories with 47 binary coded sub-items after establishing its validity and reliability by two independent researchers.

The sample in this study comprised of 88 non-financial listed firms and involved making 440 observations. Annual reports were chosen because they are official documents, a major source of accounting information; comparable among different firms, and they are the basis of other sources of information. Saudi Arabia was chosen because it is an emerging economy that is improving its investment climate, due to it having the highest market capitalisation in the Arab region, and the issuance of the SCGC in 2006.

The data gathered shows that the average RD level among all samples is 17%, the highest level is 55%, some (10 firms) did not make any risk disclosure at all, and of the majority that do, 63% of the information pertains to financial risk disclosure and related risks and the other 37% to non-financial risk disclosure. The most reported RD sub-categories are market risk at 23% and operational risk at 17%, and the least reported ones are environmental risk, and information and technology risk, both at 2%. The trend for RD over the period of study shows that most companies experienced an increase in their risk reporting activity. By industry, the highest level of risk disclosure (44%) is being made by the telecommunication industry, and the lowest (18%) is by the consumer goods industry.

The study has limitations relating to the way the content analysis was conducted; due to its focus on non-financial listed firms, and due to its focus on the context of the economic environment of Saudi Arabia. Limitations are expected since a focus on a particular context and variables is out of necessity to investigate a certain phenomenon. The method of content analysis was used to provide a measure of the level or extent of risk disclosure by creating a unique risk disclosure index. Importantly, although this analysis was conducted objectively, it necessarily involved some subjectivity in relation to interpretation. However, this was minimised through establishing the validity and reliability of the index. Also, the phenomenon of risk disclosure exhibited within the annual reports of non-financial listed firms in Saudi Arabia was investigated quantitatively, so it did not investigate the quality of this information. This may therefore be an area that is worth investigating as well, i.e. undertaking a qualitative assessment of risk disclosure information.

Furthermore, the focus on the Saudi economic environment was a deliberate delimitation so that the risk disclosure practices peculiar to this environment could be studied in-depth and according to the regulatory framework implemented within it. By expanding this geographical and economic boundary, it may be worth investigating the phenomenon of risk disclosure in the gulf or Middle East region, or MENA region as a whole such as (Al-Hadi et al., 2016a and Al-Hadi et al., 2016b). There may be notable similarities or even differences between countries, and therefore lessons that could be learnt from them, such as on incentives, good practices, effective regulatory measures, major factors that encourage disclosure of risk related information and so on.

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APPENDICES

Appendix 1. Reported risk disclosure categories and items

Category	*Disclosure Items*	*%*
	Financial Risk Disclosure	*63%*
Risk management	1. Risk management disclosure	13%
	2. Forecasting risks the company may encounter	
Financial instruments	3. Financial instruments disclosures	5%
Liquidity risk	4. Liquidity risk disclosure	8%
Credit Risk	5. Credit risk disclosure	8%
Market Risk	6. Investments risk	23%
	7. Financial markets risk	
	8. Foreign exchange rate risk (Currency risk)	
	9. Interest rate risk	
	10. Cash flow risk	
	11. Equity risk	
	12. Pricing risk or commodity price risk	
	13. Fair value risk	
	Non-Financial Risk Disclosure	*37%*
Operational risk	14. Risk of unexpected business interruption	17%
	15. Marketing risk	
	16. Industrial risk (competition).	
	17. Customers' relations and satisfaction risk	
	18. Seasonality of demand risk	
	19. Loss of major customers risk	
	20. Efficiency and performance risk	
	21. Lack of natural resources risk (e.g. water)	
	22. Sourcing risk. (Insufficient resources and raw material)	
	23. Risk of key supplies and not secure suppliers	
	24. Risk of Product or service development and failure	
Environmental risk	25. Risk of natural disasters	2%
	26. Risk of use of products that environmentally sensitive	
	27. Extreme weather conditions risk	
	28. Environment incidents risk	
	29. Risk of new laws and regulations related to the environment	
Regulation and compliance risk	30. Compliance to local law and regulations risk	4%
	31. Compliance to Saudisation law risk	
	32. Compliance to corporate governance disclosure requirements risk	
	33. Litigation risk	
	34. Risk of changing the current legal requirements	
	35. Any further discussion about other risk related to regulation and compliance	
Empowerment and employment risk	36. Human errors risk	5%
	37. Outsourcing risk	
	38. Risk of loss of key employees, or managers, or leaders	
	39. Employees and work environment risk	
	40. Recruiting of qualified and skilled professional	
Information and technology risk	41. Risk of technical and system failure	2%
	42. Risk of rapid development in technology	
Other type of risks	43. Risk of intellectual rights	7%
	44. Strategic Risk	
	45. Economic risk, internal or external	
	46. Governmental risk	
	47. Political risk	
TOTAL		100%