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**The Relationship between Risk Disclosures and Firm
Performance: Empirical Evidence from GCC**

A Thesis Submitted in Partial Fulfillment of the Requirements for the Master's
Degree in Accounting

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May 2023

Acknowledgements

First and foremost, I would like to thank Allah Almighty for continually providing me with the devotion, tolerance, and strength I needed to overcome obstacles and achieve my goals. My research would not have progressed without the encouragement, inspiration, and direction of several key and important people whom I wish to acknowledge. I would want to thank my wonderful parents for their unwavering support and unending prayers, especially my mother. They believed in me and my skills, and it is because of them that I have learnt the numerous life lessons that have shaped me into the person I am today.

I would like to thank my supervisor, **Dr. Gagan Kukreja**, for his sound advice and detailed support throughout the thesis-writing process. My heartfelt thanks also to the professors at the University of Bahrain, particularly Professor Omar Juhmani who taught me throughout my undergraduate and postgraduate studies. I would also like to thank my supportive husband and daughter for their unconditional love, support, and unwavering faith in me, as well as their never-ending efforts to encourage me.

Finally, I would want to thank all of my friends who have supported, aided, and helped me along my trip, whether at the start, the end, or in the many moments in between. The presence of family and friends, as well as their unwavering support, greatly motivated and encouraged me.

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List of Abbreviations

ADX	Abu Dhabi Securities Exchange
BOD	Board of Director
CEO	Chief Executive Officer
CMA	Capital Market Authority
DFM	Dubai Financial Market
DSM	Doha Security Market
EPS	Earnings Per Share
ERM	Enterprise Risk Management
ESGR	Environmental, Social, and Governance related Risks
FA	Firm Age
GCC	Gulf Cooperation Council
ICAEW	The Institute of Chartered Accountants in England and Wales
IFRS	International Financial Reporting Standard
MENA	Middle East and North Africa
OECD	Organization for Economic Cooperation and Development
RD	Risk Disclosure
RM	Risk Management
RMD	Risk Management Disclosure
ROA	Return on Assets
ROE	Return on Equity
SD	Standard Deviation
SE	Stock Exchange
SPSS	Statistical Package for Social Sciences
VIF	Variance Inflation Factor

Abstract

This study aims to investigate the moderating effect of Risk Management Disclosure (RMD) on the relationship between Risk Disclosure (RD) and firm performance to add to the growing body of literature on RMD by obtaining new evidence from a rapidly growing economic environment in Gulf countries. This study covers eighty (80) non-financial Gulf Cooperation Council (GCC) firms registered on the GCC Stock Exchanges (SE) with various factors throughout a 10-year period beginning in 2012. Data was gathered from Thomson Reuters, annual reports, and individual firm financial statements. Pearson's r (or Pearson's correlation) was used to evaluate the linear relationship between each pair of the study variables, while multiple regression was used to investigate the moderating effect of RMD on the relationship between RD and firm performance, while controlling for Firm Size, Firm Age (FA), Board of Directors (BOD) Size, Big 4, and Sector (fractioned into 9 dummy variables, with the industrial sector being the reference category).

Pearson's r (or Pearson's correlation) was used to evaluate the linear relationship between each pair of the study variables, while multiple regression was used to see the effect of RD, RMD, and their interaction on EPS, while controlling for Big 4, FA, BOD, size, and sector. SPSS v26 software was used to obtain descriptive statistics and multiple linear regression using the HC03 Robust Standard Errors method, while R-software v4.1.3 was used to obtain multiple regression using the bootstrapping technique (using the "boot" package).

The findings revealed that RD had no significant influence on Earning Per Share (EPS) however, RMD had a significant negative influence on EPS. Furthermore, there is no significant interaction between RD and RMD; this suggests that whether RMD is low or high, RD does not affect EPS (and vice versa: whether RD is low or high, RMD still has the same strength of effect on EPS). The Big 4 and sectors were the only control factors that had a substantial impact on EPS. The findings of this research will assist practitioners in reevaluating the interactions between their activities for RD and RMD on a firm's performance.

Keywords:

Risk Disclosure, Risk Management Disclosure, Firm Performance, Gulf Countries.

Chapter One

Introduction

1.1 Introduction

Uncertainties and risks in the stock market have been rising because of the global financial crisis and recent bank failures in the US and Europe. Nonfinancial variables and information (environmental, social, legal, and so on) that may impact the firm's value, capacity to earn profits, and strategic objectives are the most common sources of risk and uncertainty. As a result, shareholders and regulators have progressively increased their demands for firms to disclose risk information and provide credible data about their activities to reduce such doubts. RD and how these risks are managed are becoming increasingly important and critical in investigators' decision-making (Bao and Datta, 2014; Baimukhamedova et al., 2017), which has made RD an important requirement of corporate disclosure practice, especially in a business environment where many successive variables and tangled complexities are increasingly affecting decision-making.

Numerous studies have been conducted to assess and measure the influence of risk and uncertainty on a firm's performance and value. Gordon et al. (2009). Several ideas and procedures, such as Enterprise Risk Management (ERM), Environmental, Social, and Governance related Risks (ESGR), and others, have been created in this area to monitor, analyze, and manage the risks that may impact businesses' performance. In the topic of accounting disclosure, there has lately been a lot of discussion on how to disclose these risks to stakeholders and give them objective and trustworthy information about the risk factors (Elshandidy et al., (2013), how they influence financial performance (Marino and Matsusaka, 2005), and how firms respond to them? (Haj-Salem and Hussainey, 2021).

RD conveys information to stakeholders about current and possible risks that organizations face and might influence their continuity (Elamer et al., 2020). As a result, RD may be one of the most essential categories of financial reporting to stakeholders.

Unlike other studies, this one intends to respond to previous calls for studies into the relationships between RD and RMD practices in emerging markets (GCC). As a result, the current study tries to fill the gap in the literature by examining the moderating impact of RMD on the relationship between RM and the performance of non-financial publicly traded firms in GCC

countries, employing a content analysis approach that includes not only mandatory RD but also any other voluntary information that may be useful for meeting the needs of potential shareholders and investors.

The process of making facts or information available to the public is known as disclosure. Corporate risk disclosure is crucial since it offers details on how risks may affect a firm's future financial condition (Rahman et al., 2011). Appropriate disclosure by corporations is the act of making relevant information available to their customers, investors, and anybody else interested in doing business with the firm. Extensive narrative reporting, comprising a description, discussion, and analysis of risks encountered by corporations, is widely acknowledged as a fundamental component of investor protection, and a guarantee of stronger corporate responsibility. Researchers have investigated business RD from a variety of perspectives (Elamer et al., 2020) While some researchers have investigated the influence of corporate governance on the extent and quality of RD, others have investigated the phenomena of RD and their substance from the perspective of market economics. Professional organizations have issued reports on RD on a regular basis, emphasizing RD as a critical component of good corporate governance.

The need for a mandatory RD framework versus the sufficiency of the voluntary 'disclose or explain' approach has been debated in academic and professional circles. The literature has also looked at the value, relevance, and utility of RD. RD by firms in various nations, groups of countries, and areas have been researched. RD is a new and exciting topic of study that brings together experts from economics, finance, accounting, and law.

Firms are subject to a wide range of internal and external hazards in today's business environment, which is typically seen as fraught with dangers and uncertainties. As a result, in this ever-changing business environment, corporations are widely acknowledged to confront several threats, problems, and uncertainties, including (but not limited to) economic, political, and social risks. When operating in a volatile and uncertain business climate, firms must have an effective Risk Management (RM) system and risk management methods in place. These concerns may have a severe influence on a firm's performance and even endanger its survival. RD became more significant as a result of the impact of different firm risks on investors' judgments in the proper appraisal and value of firms (Florio and Leoni, 2016). While it is a distinct field of study, it is also connected to other forms of accounting disclosure studies. Existing research on RD requirements

and potential RD drivers is more prominent in developed countries; nevertheless, there is a rising body of RD research in emerging economies.

In general, corporate risk is defined as the likelihood of a loss that will have a negative impact on a firm's future financial situation or business performance (Domínguez and Gámez, 2014). According to the Agency Theory, the dissemination of risk information in yearly reports plays a significant role in driving management decision-making (Jensen and Meckling, 1976). Furthermore, it is usually stated that increased RD will eliminate "conflicts of interest" between stakeholders and agents and improve organizational performance (Jensen and Meckling, 1976; Nahar et al., 2016).

Risk is an unavoidable part of every type of organization, and stakeholders desire risk information to be reported and disclosed on a timely basis (Amran et al., 2008). Furthermore, (Oliveira et al., 2011) demonstrated that RD aids in the stabilization of an organization's operational system, market discipline effectiveness, and the social support of the firm's stakeholders. To ensure continued business growth and profitability, proper RD is required.

As a result, organizations should develop strategies to adapt to such difficulties and mitigate or capitalize on their possible consequences and outcomes as part of corporate governance. They can both safeguard and create wealth for shareholders in this way. It is also maintained that firms have a responsibility to keep shareholders and other information users aware of their risk exposures and RM techniques and that firms should justify their risk -taking to investors. As a result, RD (or risk reporting) allows investors and stakeholders to gain a better understanding of the risks a firm confronts and how they are managed. It is commonly considered that RD is significant because it assists stakeholders in evaluating management performance by providing a picture of how well management manages risks and in making decisions by facilitating an assessment of the firm's risk profile (Grootaert and van Bastelaer, 2001).

1.2 Contribution of the Study

This study contributes to practice and theory by giving new and varied insights into the interaction of RD and RMD practices and their influence on business performance in emerging and developing markets. The GCC is rated 19th, accounting for 25% of the overall Arab GDP, and

has an ambitious economic strategy revealed in the GCC Vision 2030, which promises to create significant investment possibilities.

The findings of this study will assist GCC regulatory bodies in considering the importance of disclosing RMD for each risk type reported in order to provide a clear picture of the firm's risks, which will help financial statement users assess the risk factors to which the firm is exposed and their impact on its performance.

Because the current study focused on non-financial Public Limited Company (PLCs), the findings may not be relevant to the financial industry or other contexts. Researchers and practitioners have become more interested in RD in annual reports in recent years. The Institute of Chartered Accountants in England and Wales (ICAEW) released a discussion paper titled "Financial Reporting of Risk Proposals for a Statement of Business Risk" in 1998, proposing that directors reveal their RM information in annual reports. Later, it was long argued that RD is linked to a variety of benefits, including improved corporate RM, reduced information asymmetry, reduced agency costs, investor protection, and improved firm reputation. Indeed, all firms are encouraged to disclose their risks to improve the transparency of their financial reports, improve the quality of their disclosures, and assist present and potential investors in making informed economic decisions.

Extensive narrative reporting, comprising a description, discussion, and analysis of risks encountered by corporations, is widely acknowledged as a fundamental component of investor protection and a guarantee of stronger corporate accountability. Researchers have investigated business RD from a variety of perspectives. While some researchers have investigated the impact of corporate governance on the extent and quality of RD, others have investigated the phenomena of RD and their substance from the perspective of market economics. Professional organizations have issued reports on RD on a regular basis, emphasizing the importance of RD as a vital component of good corporate governance.

Chapter Two

Background

2.1 Risk Definition

There is no universally accepted definition of risk, though it is commonly associated with the prospect of danger, loss, or harm. Diverse literature follows different risk theories, yet the understanding appears to be convergent toward a generic idea. (Solomon et al, 2000) defined risk as the element of uncertainty that comes with both a potential benefit and a potential loss. It went on to say that risk prioritization is an important aspect of a firm's RM approach. Risks are defined as uncertain future events that may have an impact on a firm's ability to achieve its goals. RM is the process of identifying, evaluating, and managing threats to an organization's capital and income that are of a financial, legal, strategic, and security nature. These threats or risks could develop for a number of reasons, including monetary instability, legal liability, poor strategic planning, mishaps, or natural disasters.

An incident that catches your firm off guard could have a little impact, such as a slight rise in your overhead costs. However, in the worst-case scenario, it may be disastrous, leading to a significant financial burden or perhaps the liquidation of your firm.

The impact of adverse occurrences must be minimized, monitored, and controlled, while the positive effects of fortunate events must be maximized, for a corporation to effectively manage risk. It acknowledges that risks must be accepted to seek an economic or business opportunity, but it also highlights the necessity of protecting a firm against needless hazards. The ICAEW bases its definition of risk on the UK Financial Reporting Standard (FRS) No. 5, which specifies that risk is "uncertainty as to the number of benefits." The term includes both the likelihood of profit and the danger of loss. Professor of Sociology Deborah Lupton's concept of risk, which takes into account the potential for both damage and gain as a potential outcome of a scenario, has been embraced by (Linsley and Shrives, 2006). The management of any opportunity, potential, hazard, danger, harm, threat, or exposure that has already affected or may in the future affect the firm, as well as the disclosure of any such opportunity, prospect, hazard, harm, threat, or exposure, is seen by the authors as an RD. According to (Dobler et al., 2011), risk is defined as an unpredictable

result indicated by a known probability distribution, as described by economist Frank Knight in 1921.

The ICAEW adopts Knight's ideas further in terms of differentiating between risk and uncertainty as quantifiable and unmeasurable risks, respectively, albeit conceding that most business risks are uncertainties in the sense that they are difficult to identify or quantify. The key premise is that risk is a subjective perception of the genuine threats and uncertainties that individuals and organizations confront, which may or may not be quantitative. The International Finance Corporation (IFC) uses the concept of risks which has two characteristics that represent danger and opportunity. The concept is that danger brings with it opportunity, and vice versa. Risk is the unpredictability of future economic performance of organizations based on currently accessible knowledge. This concept includes Knight's definitions of risk and uncertainty. After examining definitions from other social sciences and attempts to describe risk in various commission reports, academic and professional literature appears to be converging on Knight's definition of risk and uncertainty. Given that Knightian uncertainties have the ability to inflict more harm to a firm than Knightian threats, the way a firm assesses, and reports uncertainties is critical.

2.2 Significance of Corporate Risk Disclosure

According to (Solomon et al, 2000), a firm's RM practices must be disclosed if it intends to lower its cost of capital through increasing market confidence. The main concept is that by taking this step, the knowledge gap between investors and firm directors will be reduced, and investor relations and corporate governance will improve. Investors would be able to make more effective risk diversification selections if risk transparency was improved, according to the authors. (Linsley and Shrives, 2006) have urged board members to communicate to shareholders, the firm's dangers and the efforts taken to mitigate them. Individual and institutional investors, as well as lenders, will be better informed because of the disclosure of risk and RM data, they claim.

Investors and lenders who are better informed will be able to better deploy their resources to their investment portfolios, resulting in a better allocation of resources in the financial markets generally. The market RD required by Financial Reporting Release (FRR) No. 48 provides useful information to investors by reducing the uncertainty and diversity of opinion about possible

outcomes resulting from changes in interest rates, foreign currency exchange rates, and commodity prices. The ICAEW urges corporate directors to provide more risk and RM information in prospectuses and annual reports in its position paper on RD. The institute claims that such disclosure will lower firms' costs of capital, improve RM and corporate governance, and increase the value of firm disclosures. The benefits to investors are forward-looking information and overall protection of their interests because of such disclosures. Managers' RD decisions were studied by (Jorgensen and Kirschenheiter, 2003).

It was discovered that under a voluntary disclosure environment, the cost of equity capital for non-disclosing firms is greater than for firms that reveal risk information. In a market where other firms reveal their risks, a non-disclosing firm was found to have a greater beta than the disclosing firms. In a mandatory disclosure environment, a firm's predicted beta and risk premium was found to be higher than in a voluntary disclosure regime. The favorable impact of forward-looking information disclosure in the form of RD on the accuracy of analyst projections about business valuation and profitability has been iterated by (Beretta and Bozzolan, 2004).

After a series of accounting irregularities and financial crises, there has been a growing need for more and better corporate disclosures. RD and RM actions by firms have gotten more attention in recent disputes about corporate disclosures. Those in favor of more risk-related disclosures by firms believe that effective corporate governance requires directors to be accountable to shareholders for the risks that the firm confronts, and that better RD improves awareness of the risk profile of a firm. RD is a key concern in corporate communication. Knowing about firm risk is critical for assisting actual investment decisions in approaching the utility-maximizing decision model of portfolio management (Thuelin et al., 2006).

Risk information that is both coherent and understandable allows stakeholders to better comprehend a firm's risk posture while also allowing them to manage their own risk profiles. The study of RD is significant since firm's transparency about its risk is critical for the smooth functioning of the capital markets. The traditional financial reporting part of a corporation's annual report has been determined to be inadequate to meet the information needs of stakeholders in the firm due to rapid changes in the business environment and business models, as well as several corporate accounting and financial scandals.

To acquire a fuller view of a firm's current health and future prospects, it is now necessary to analyze both financial and non-financial disclosures, as well as both quantitative and qualitative disclosures in annual reports and regulatory filings. The ICAEW claims that RD has a role not just in lowering firms' cost of capital and improving investor information, but also in improving corporate governance and stewardship. Improved risk reporting allows users to better assess and predict variation in a firm's future performance, thereby assisting the overall risk assessment for the firm. High-quality narrative content in annual reports is required to improve the value of a firm's public reporting for investors and other end users of corporate communications. The Institute of Chartered Accountants of Scotland (ICAS) believes that risk and RMD by firms can help investors better spread risk across their portfolios. They accept the importance of firm RD in eliminating market distortions and improving financial market efficiency.

According to (Barakat and Hussainey, 2013), the disclosure of risk information by firms improves market efficiency in three ways. First, as an external mechanism for monitoring senior management's behavior; second, by assisting investors in assessing the likely variations in a firm's future cash flows and lowering its cost of capital; and third, by facilitating investors' trust in the firm by acting as a support to its legitimacy and reputation. (Ntim et al., 2013) have related corporate governance theories to the importance of RD. RD can help to alleviate issues of agency and knowledge asymmetry between insiders and stakeholders.

RD can improve a firm's goodwill and reputation, which can help the firm achieve its goals with the help of society at large, according to institutional and legitimacy theories of corporate governance. Stakeholder theory suggests that business RD can help garner support for corporate aims from stakeholders such as investors, regulators, employees, and the government. According to the resource-dependence theory, RD can help a firm raise money at a lower cost from the market by improving its reputation and image.

Figure 2.1: Significance of Risk Disclosures

Importance of Risk Disclosure								
Reduce Cost of Capital	Enhance firm Reputation and Image in the market	Facilitates the calculation of uncertainty and the impact prediction	Future business decisions with greater assurance	Prevent future criticism for errors or omissions and potential legal action	Helping to manage the change	Determining the risk profile of a firm	Estimating the market value of securities	Increasing shareholder's wealth

RD, both quantitative and qualitative, has long been recognized for its importance. There is widespread agreement that corporations must provide information about risk and RM in their annual reports and filings for investors, regulators, and other stakeholders to make better assessments of their future prospects. Professional organizations and academics both agree on the importance of corporations disclosing risk and RM information to lower their cost of capital including the fact that this is the first of its kind in the GCC region. Finally, the researcher gave a quick rundown of the next chapters.

2.3 International Financial Reporting Standard (IFRS) 7

IFRS 7 is a standard that specifies the disclosure requirements for financial instruments. The goal of IFRS 7 is to provide financial statement users information that will help them make investment decisions. The standard requires firms to disclose information regarding the type and degree of their exposure to financial instruments, as well as the risks associated with such products. IFRS 7 is organized in a way that makes it simple for users to find relevant information, with disclosures organized into areas such as fair value measures, liquidity risk, and credit risk. The significance of IFRS 7 in financial reporting cannot be overstated, since it encourages openness and accountability in financial reporting.

Several important requirements of IFRS 7 must be met by firms. One of the most significant criteria is the disclosure of financial instrument information. The nature and terms of financial

instruments, as well as the risks connected with those instruments, must be disclosed by firms. Furthermore, businesses must make disclosures on fair value measures, such as the techniques used to calculate fair value and the sensitivity of fair value to changes in market circumstances. Another important need is the disclosure of liquidity and credit risk, as well as the strategies used to mitigate those risks. These disclosures assist financial statement users in better understanding the risks connected with a firm's financial instruments.

The introduction of IFRS 7 includes both advantages and disadvantages. One of the primary advantages is enhanced openness and accountability in financial reporting, which allows consumers to make more educated investment decisions. By requiring organizations to disclose information about their exposure to financial instruments, IFRS 7 promotes uniformity and comparability in financial reporting. However, the standard's comprehensive disclosure requirements can be difficult for businesses to meet, particularly those with large and sophisticated financial instrument portfolios. Nonetheless, the benefits of implementing IFRS 7 exceed the obstacles since the standard encourages more openness and uniformity in financial reporting.

According to IFRS 7, organizations must include disclosures in their financial statements that allow users to assess:

- The importance of financial instruments to the firm's performance and financial status.
- The type and scope of financial instrument risk exposure the firm has both during the reporting period and at its conclusion, as well as how the entity manages such risks. The qualitative disclosures outline the goals, regulations, and procedures used by management to address those risks. Based on the information given internally to the firm's senior management employees, the quantitative disclosures give information about the degree to which the entity is exposed to risk. These disclosures give a comprehensive picture of how the entity uses financial instruments and the risks it is exposed to.

All firms must comply with IFRS 7, regardless of how many financial instruments they have or how few they have (for instance, a manufacturer may only have cash, accounts receivable, and accounts payable). For annual reporting periods starting on or after January 1, 2007, IFRS 7 is applicable.

2.3.1 Standard History

The International Accounting Standards Board (Board) accepted IAS 30 Disclosures in the Financial Statements of Banks and Similar Financial Institutions in April 2001, which had been published by the International Accounting Standards Committee in August 1990.

The Board adopted IFRS 7 Financial Instruments in August 2005, which superseded IAS 30, and carried forward the disclosure requirements in IAS 32 Financial Instruments: Disclosure and Presentation. IAS 32 was later called IAS 32 Financial Instruments: Presentation. IAS 1 Presentation of Financial Statements (as updated in 2007) changed the language used throughout IFRS, including IFRS 7. In March 2009, the IASB improved the disclosures concerning fair value and liquidity concerns in IFRS 7.

The Board also updated IFRS 7 to reflect the publication of a new financial instruments standard, IFRS 9 Financial Instruments, which addressed the categorization of financial assets and liabilities.

In addition, in October 2010, IFRS 7 was revised to require companies to augment disclosures for any transferred financial assets that are not derecognized where there is some continuing engagement in a transferred asset. In December 2011, the Board modified IFRS 7 to increase disclosures in netting arrangements involving financial assets and financial liabilities.

When IFRS 17 Insurance Contracts was published in May 2017, it included disclosure requirements for when a business uses an exemption for specified Treasury shares or a firm's own repurchased financial liabilities in defined circumstances.

The Board issued Interest Rate Benchmark Reform in September 2019 to provide specific exceptions to hedge accounting requirements in IFRS 9 and IAS 39 for (a) highly probable requirements; (b) prospective assessments; (c) retrospective assessments (IAS 39 only); and (d) separately identifiable risk components. Interest Rate Benchmark Reform also included particular disclosure requirements for hedging relationships for which a business uses the IFRS 9 or IAS 39 exceptions.

The Board issued Interest Rate Benchmark Reform - Phase 2 in August 2020, which amended requirements in IFRS 9, IAS 39, IFRS 7, IFRS 4, and IFRS 16 relating to:

- Changes in the basis for calculating contractual cash flows of financial assets, financial liabilities, and lease liabilities;
- Hedge accounting; and
- Disclosures.

The Phase 2 modifications solely apply to changes to financial instruments and hedging agreements required by the interest rate benchmark reform.

Other standards have made minor changes to IFRS 7. They include Limited Exemption from Comparative IFRS 7 Disclosures for First-Time Adopters (Amendments to IFRS 1) (issued January 2010), Improvements to IFRSs (issued May 2010), IFRS 10 Consolidated Financial Statements (issued May 2011), IFRS 11 Joint Arrangements (issued May 2011), IFRS 13 Fair Value Measurement (issued May 2011), Presentation of Items of Other Comprehensive Income (Amendments to IAS 1) (issued June 2011, Annual Improvements to IFRSs 2012-2014 Cycle (issued September 2014), Disclosure Initiative (Amendments to IAS 1) (issued December 2014), IFRS 16 Leases (issued January 2016), Annual Improvements to IFRS Standards 2014-2016 Cycle (issued December 2016), and Amendments to IFRS 17 (issued June 2020).

2.4 Background information about GCC capital markets

Arab governments established the Gulf Cooperation Council in 1981. It is made up of six countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE. Its purpose is to develop coordination, integration, and collaboration among the council nations in a variety of areas, most notably economics. (Azar and Chopurian, 2018; Nasira et al., 2019).

The GCC members signed numerous key economic agreements at the GCC presidents' conference in Muscat in 2001. The summit accords focused mostly on furthering GCC integration. Furthermore, the Muscat summit established a number of agreements requiring GCC countries to treat all council nationals equally in market activities such as investment, stock ownership, and business establishment, as well as to allow flexible movements of capital and labor within the council member countries (Onour (2009).

The Muscat summit accord had a considerable influence on the GCC capital market linkages and the nations' economic relationships. Furthermore, the development of the banking and

financial sectors increased market efficiency in the region, attracting more local and foreign firms to enter and compete in the market, improving stock exchange performance, and resulting in better movements between GCC stock markets, reducing the likelihood of investors' regional diversification (Onour (2009).

The oil and gas sector are the largest source of cash in the GCC, and it contributes to the region's capital market efficiency (Alqahtani and Taillard, 2019; Nasira et al., 2019). The area's economy is still recuperating from the 2008 global financial crisis, which resulted in a major decline in oil prices. This economic occurrence, however, has forced GCC nations to devise an ideal investment plan (Azar & Chopurian, 2018).

Because of the GCC's current economic conditions, council members are classified as emerging countries that have spearheaded the transformation of their economies by establishing new industry segments, diversifying their income, and resolving some market challenges such as limited information dissemination, low market efficiency, and high market volatility (Shkvarya and Frolova, 2022). The Hawkamah Institute, established in 2006, offered guidelines for listed businesses to preserve information symmetry and enhance the quality of firm processes (Hawkamah, 2010).

The Hawkamah Institute was established through collaboration between international organizations such as the Organization for Economic Cooperation and Development (OECD), the International Finance Corporation (IFC), the World Bank, and a number of regional organizations, (including the Union of Arab Banks and the Dubai International Financial Centre (DIFC) Authority. The establishment of this institute, as well as the improvement in early market Hawkamah facility adaptation, has accelerated the recognition of the need for such an organization that provides guidelines and assurance services to the board practices of MENA firms in order to achieve the best corporate governance code implementation. As a result, Hawkamah has risen to the top of the region's corporate governance discourse.

Furthermore, Hawkamah's adopted corporate governance rules not only protect investors from conflicts of interest between the firm's top managers and shareholders (Hawkamah, 2010), but they can also improve the MENA region's economic ability to compete in the international market and

enhance overall market performance and reputation (OECD, 1995) by maintaining consistent rules, policy improvements, and updating to align with global economic development.

2.5 GCC capital markets overview

Many traits are shared by corporates in the GCC area, including societal conventions and sources of income. This section offers a summary of the GCC nations' most recent achievements.

Table 2.1 summarizes the capital markets of the Gulf Cooperation Council (GCC):

Table 2.1: General information on the capital markets of the members.

Country	Currency	Financial Regulator	Stock Exchange	Market proxy	Year of market establishment
Bahrain	Bahraini Dinar	Central Bank of Bahrain	Bahrain Stock Exchange	BSE	1987
Kuwait	Kuwaiti Dinar	Capital Standard Rating	Kuwait Stock Exchange	KSE	1944
Oman	Omani Riyal	Capital Market Authority	Muscat Securities Market	MSM 30	1988
Qatar	Qatari Riyal	Qatar Financial Centre Regulatory Authority	Qatar Stock Exchange	QE	1995
Saudi Arabia	Saudi Riyal	Capital Market Authority	Saudi Stock Exchange (Tadawul)	TASI	1980
United Arab Emirates	UAE Dirham	Securities & Commodities Authority	Abu Dhabi Securities Exchange and Dubai Financial Market	ADX DFM	2000

*Source: GCC official stock exchange websites

2.5.1 Bahrain

The Kingdom of Bahrain was recognized as one of the region's primary commerce centers, and its first public shareholding business was created in 1957. The capital market was largely driven by the oil industry's results, which enhanced Bahrainis' personal wealth, leading to a boom in investments in new and existing public firms. As a consequence of its first informal market, Al-Jowhara, Bahrain became a popular location for personal and corporate capital investments (Oxford Business Group, 2016).

Al-Jowhara became a hub for numerous trading activities with large profit returns, and these returns were connected with the changes in oil prices at the time, since increases in oil prices led to overpriced equities. Furthermore, the market continued its success until 1982, when the Souk Al-Manakh, a Kuwaiti informal trading market, collapsed (Oxford Business Group, 2016).

Bahrain's first formal stock exchange (Bahrain Stock Exchange) opened in 1987. In 1989, the market was formally launched, with 29 listed businesses trading stocks on a single product platform. The trading method was replaced in 1999 with an automated trading system since it was manually recorded.

The Commercial Firms Law was changed in 2001 to compel listed firms to provide specific information on the roles, makeup, and voting rights of the board of directors (Hussain and Mallin, 2003).

The Bahrain stock exchange allowed multi-product trading in popular financial products such as preferred shares, bonds, Sukuk (Islamic bonds), and mutual funds. A year after became its official website (CBB official website). In 2010, the Bahrain Bourse was renamed the Bahrain Stock Exchange.

The Kingdom of Bahrain developed its primary corporate governance code in 2010 and followed a 'conform-or-explain' strategy by the end of 2011, which implies that corporations must comply or explain why they are not. Furthermore, the first Bahraini corporate governance code had nine principles, all of which dealt with firm disclosures and board member issues (Bahrain corporate governance code, 2010).

Bahrain has been establishing a strategy to align with global economic development through collaboration between the Bahrain Ministry of Industry and Commerce, the Central Bank of Bahrain, and the National Corporate Governance Committee. As a result, two additional corporate governance principles were introduced to the 2010 law in 2019.

The new principles include the accuracy of financial statements, the need to appoint an external auditor, and the disclosure of social responsibility (Bahrain corporate governance law, 2019).

2.5.2 Kuwait

Kuwait established the first stock exchange market in the area (Kuwaiti Stock Exchange) in 1944, with a total of 13,100 shares issued by local merchants exchanging stocks through the National Bank of Kuwait (NBK). As a result, Kuwait was the first member of the council to form a shareholding business and a local bank. The NBK stock trading prompted other new local enterprises to list and trade in the market on an informal basis, which grew until the 1970s (Oxford Business Group, 2017b).

As a new informal market, Souk Al-Manakh (Camel Market) was formed in 1978, Al-Buloushi (2013). The informal market was not subject to any of the regulatory standards of Kuwait's official stock market, and it included approximately 40 listed corporations from non-Kuwaiti, Gulf nations. The majority of the listed enterprises transacted in post-dated cheques. Souk Al-Manakh crumbled and plummeted in 1982 due to a lack of administration. (Craig and Kachovec 2019).

Kuwait thus prioritized investor protection and the promotion of the official equity market, Al-Buloushi (2013). Because of the market's tremendous impact, shareholders with little assets were the most well-known firm group from the equity market in 2008 according to Al-Wasmi (2011). To build trust among local and global investors, the Kuwaiti government created a corporate governance code in 2013 for all businesses listed on the Kuwait Stock Exchange, with all enterprises given two years (2014 to 2016) to fully comply with and execute the code (Oxford Business Group, 2017b). The Kuwaiti corporate governance law, which consists of seven principles that apply to all publicly listed corporations, was overseen by the Capital Standards Rating Agency (CSR).

However, Al-Buloushi (2013) claimed that implementing the corporate governance code in Kuwait encountered many difficulties, primarily during the phase of discussing moving the code

principles to mandatory status rather than comply-or-explain, because Kuwaiti corporations are dominated by powerful families unwilling to hand over power to the regulator.

2.5.3 Oman

Oman's business strategy and physical position in the Arabian Peninsula's south-eastern portion has provided the country with long-term benefits. In the early years, foreign commerce was the principal source of revenue, coupled with other fundamental economic activities associated with Oman's maritime environment, such as agriculture, fishing, and trading (Peterson (2004).

The discovery of oil in 1964 led to a large increase in Omani residents' personal wealth, motivating the government to create the Muscat Securities Market in 1988, which is responsible for formulating market laws and offering exchange trading services. The market is considered the second oldest in the GCC area, behind the market in Kuwait (Oxford Business Group website, 2017b).

In 1998, the Muscat Securities Market (MSM) was separated into two different entities: the MSM as an exchange trading market and the Oman Capital Market Authority (CMA) as a regulator (Muscat Securities Market official website). Furthermore, the Omani government was aware of regional market failures, notably in 1982 in Souk Al-Manakh.

As a result, the Capital Markets Authority in Oman adopted the corporate governance code in 2002, and the country is widely considered the first in the GCC to enact corporate governance regulations. Furthermore, rather than enticing international investors, the major purpose of establishing the code was to offer norms and recommendations to reinforce legal requirements included in Omani corporate laws (Qurashi, 2018).

In 2016, the Omani Capital Markets Authority replaced the previous code with a new updated version that includes 14 major principles, each accompanied by precise criteria for attainment. Furthermore, these new principles apply to all listed firms on the Muscat Securities Market in order to increase transparency, accountability, fairness, and duties, as well as protect the rights of investors (Capital Markets Authority official website).

Following the introduction of the new corporate governance law, the Omani economy improved significantly, with the market demonstrating its potential to maintain a growth rate for many years

(2015-2017). As numerous causes, like rising oil prices, assisted economic development, the government reduced expenditure and raised non-oil revenues.

These characteristics helped Oman maintain a healthy capital market (Muscat Securities Market annual report, 2017).

The Muscat Securities Market has 110 listed businesses in three primary categories by 2021: finance, services, and industrial. Among the 23 sub-sectors that compose these sectors are banking, insurance, cement, chemicals, telecommunications, tourism, logistics, oil and gas, education, and real estate (Muscat Securities Market annual report, 2021).

2.5.4 Qatar

Qatar is a peninsula that spans from Saudi Arabia into the Arabian Gulf and is the GCC region's second-smallest country, behind Bahrain. Prior to the discovery of oil, fishing, and pearl diving were the country's principal sources of revenue. Exploration for oil and gas began in 1940, and the first offshore field was identified in 1960. Revenues from the oil and gas business have skyrocketed, peaking in 1973. As a result, Qatar now has one of the highest per capita incomes in the world (Oxford Business Group, 2018).

The Doha Security Market (DSM) was created by the Qatari government as the country's first official trading market DSM. The market was founded in 1997 with a manual operation mechanism for 17 listed businesses. Furthermore, the DSM transitioned to an automated trading system in 2001, and the first website (Doha Security Market (DSM) official website) was opened a year later.

In order to attract more local and foreign investors, Qatar became the fifth country in the GCC to impose the CG code on all corporations and legally listed organizations in the Qatar stock exchange market in 2009 (Qatar Financial Markets Authority, 2009).

The Qatar Financial Markets Authority, Qatar's major issuer, had submitted its most current code update by mid-2017 in order to comply with economic international development under the status "comply-or-explain and mandatory." Aside from that, the code contained all of the required information on the code's implementation as well as the board's rights and duties (Qatar Financial Markets Authority, 2009).

2.5.5 Saudi Arabia

Saudi Arabia's economy expanded with the discovery of oil and gas resources in 1930, thanks to a partnership with the Standard Oil Company of California. Aramco (Arabian American Oil Company) continued to explore oil resources until 1951 when the first offshore field was discovered. Petroleum discovery is crucial to the Saudi economy, and this has prompted multinational oil corporations to enter the Saudi market. The growth of the oil and gas industry expanded employment, provided a source of income for many households, and eventually benefited Saudi Arabia's economy (Jain and Oommen, 2020).

The Saudi capital market began informally in the 1950s and operated well until the government adopted its core laws in the 1980s. The performance of Saudi equities market was impacted by its increasing oil prices. Later, in 1988, Saudi Aramco was founded to take over Aramco's obligations, knowing that Saudi Arabia had held the world's second- biggest oil reserves and output for years, a position it held until 2011. (Oxford Business Group, 2014a report).

In 2007, the Saudi Ministerial Council approved the formation of "Tadawul" as a stock exchange (Tadawul official website), and the CMA was created in 2006 to develop the Saudi corporate governance rules over Tadawul listed enterprises. The market had 169 listed businesses in 2014, and it was separated into two sub-markets: TASI (All listed firms) and NOMU (parallel market) (Saudi Arabian Capital Market Authority, 2016).

As a result, Saudi Arabia is the first country in the area to exploit the parallel market to enhance its market capacity. Furthermore, the CMA amended the corporate governance code in 2017 to make it relevant to all listed firms with "comply-or-explain" status. The code is broken into 12 sections that describe the directors' rights and duties as well as the firm's best practices (Saudi Arabian Capital Market Authority, 2018).

Tadawul had 200 listed firms in 2018, and the number of listed firms is considered an indicator of the progress of the Saudi stock exchange market. The greater the figure, the more enterprises employ equity finance in their operations (Tadawul official website).

2.5.6 United Arab Emirates

The United Arab Emirates (UAE) is a seven-emirate federation comprised of the capital, Abu Dhabi, Ajman, Dubai, Fujairah, Ras Al-Khaimah, Sharjah, and Umm Al-Quwain.

The discovery of oil and gas in 1958 had a substantial economic influence on the country, resulting in rises in Emirati personal wealth until 1973. Following the significant surge in oil prices, the UAE economy began to develop swiftly, and the country has since maintained spectacular and continuous development throughout history.

The UAE economy relies heavily on the oil and gas sector, although the government is trying hard to diversify the country's income. In this regard, the Dubai government established Dubai Financial Market (DFM) in the year 2000 as a public institution with an independent legal entity (DFM official website), which was followed by the establishment of Abu Dhabi Securities Exchange (ADX) at the end of the same year (November 2000). Both marketplaces are governed and regulated by the UAE Securities and Commodities Authority (SCA) (ADX official website).

NASDAQ Dubai, the third stock exchange market, was founded in 2005 to handle international stock trading. The market is controlled to international standards by the Dubai Financial Services Authority (DFSA), an independent regulator that implements rules and regulations comparable those of the Securities and Exchange Commission in the United States (NASDAQ Dubai website).

In 2007, the SCA published a corporate governance rule to safeguard the interests of investors and attract more local and global investors. In addition, the code was superseded in 2009 by a new code called "Governance Rules and Corporate Discipline Standards."

With the exception of financial institutes, which are subject to the regulations of the Central Bank of UAE, which released separate "Corporate Governance Guidelines" for UAE bank directors in 2009, the government made this code mandatory for all listed firms (ADX and DFM markets). Hawkamah, IIF, UAE, 2007.

Table 2.2: Corporate Governance Codes of GCC countries

Country	Corporate Governance Codes	Last amendments
BAHRAIN	Corporate Governance Code	2019
KUWAIT	Resolution No/ (25) of 2013 of the CMA Board of Commissioners concerning issuing Corporate Governance Regulations for Firms regulated by Capital Markets Authority	2013
OMAN	Code of Corporate Governance for Public Listed Companies issued by the Capital Market Authority Sultanate of Oman	2016
QATAR	Governance Code for Companies & Legal Entities listed on the main market	2017
SAUDIARABIA	Corporate Governance Regulation issued by the Board of the Capital Market Authority	2018
UAE	The Chairman of Authority's Board of Directors' Resolution No/ (7 R.M.) of 2016 Concerning the Standards of Institutional Discipline and Governance of Public Shareholding Firms	2016

*Source: all data in above Table from the GCC official stock exchange websites

2.6 The objective of this study

This study aims to investigate the moderating effect of RMD on the relationship between RD and firm performance to add to the growing body of literature on RMD by obtaining new evidence from a rapidly growing economic environment in the Gulf by using content analysis of cross-sectional data extracted from audited annual reports from a sample of listed firms in the GCC countries.

2.7 The impact of this study

Investors' efforts to obtain sensitive information diminish as the quality of disclosure improves. Firms that voluntarily reveal information that is not mandated by lawmakers work to shape market

participants' expectations and, hence, gain from interacting with such people by releasing extra information. Other shareholders utilize their monitoring authority over directors without incurring any costs because of the function of substitution provided by direct supervision and transparency. Public information would therefore be less necessary. As a result, they disseminate less accurate and reliable information.

2.8 The structure of this study

There are six chapters to this study: Introduction is the first Chapter, followed by Background in Chapter Two, Literature Review, Hypothesis Development, and Conceptual Framework in Chapter Three. Research methodology is presented in Chapter Four, followed by statistical analysis and the results in Chapter Five. Chapter Six concludes with conclusions and suggestions for future research.

2.9 Chapter Summary

This chapter included an overview of the investigation's main issue, which was the level of RD and its impact on corporate performance. The importance of RD and how it affects business performance were also explored. The researcher then went on to talk about how the study adds to the greater body of information. The study's goals, aims, and significance were reviewed.

Chapter Three

Literature Review, Hypothesis Development and Conceptual Framework

3.1 Introduction

Numerous studies have been conducted to measure and evaluate the influence of risk and uncertainty on the performance and value of businesses. Researchers have constructed several theories to explain the reasons and motives behind the disclosure decisions made by corporations in an attempt to explain the difference in the kind, degree, and breadth of RD. Many theories exist in the financial reporting literature that explore the motives and determinants of disclosure practices from two perspectives: economic and socio-political. As a result, the RD in annual reports for a sample of GCC listed firms is discussed using signaling theory and agency theory. Several ideas and procedures, such as ERM, ESGR, and others, have been created in this area to monitor, analyze, and manage the risks that may impact businesses' performance.

When researching RD policies, one of the most confounding concerns is risk definition, because different risk definitions might lead to different views and types of risk to be communicated (Linsley and Shrives, 2006). Previous research has recorded several points of view on the risk concept and RD definition. The pre-modern risk definition (one-sided-risk definition) solely represents the negative effects of risk factors on firm performance, whereas the contemporary risk definition (two-sided-risk definition) represents both the negative and positive impacts of risk factors. For example, the pre-modern risk definition is consistent with the Securities and Exchange Commission's (SEC) Financial Reporting Release No.48, which requires publicly traded firms to report qualitatively and quantitatively on market risks such as potential losses from negative interest rates, foreign exchange rates, commodity, and equity prices.

The purpose of examining relevant literature is to reveal prior researchers' perspectives and findings that are relevant to the study's scope and have aided in the development of its hypothesis.

3.2 Risk management Disclosures and Business Performance

According to Uyar (2009), most businesses utilize annual reports to connect with their stakeholders. Firms provide annual reports to investors and other users to help them decide whether

to buy, sell, or keep business shares. Annual reports provide financial data as well as management explanations of the firm's operations and prospects. Risk and uncertainty are threats to businesses' growth, competitive advantage, and survival (Beasley et al., 2008). Moreover, risk and uncertainty are found in both the internal and external environments of businesses in today's world. To close or reduce the businesses' risk and uncertainty, the business organizations need to have their RM. Since the Asian financial crisis in December 1998, RM has been incorporated into issues of corporate governance to give fairness, transparency, integrity, responsibility, and accountability to firms, senior management, shareholders, and other stakeholders. Corporate governance is separated into five sections: shareholder rights, equal treatment of shareholders, stakeholder roles, disclosure and transparency, and board committee responsibilities. Corporations with widely spread public ownership of shares are more likely to have high agency costs since investors can urge management for further information as part of the monitoring activities. In the case of concentrated ownership, however, there is little or no physical separation between owners and managers of capital, and most risk-related information may be conveyed during boardroom meetings or informally. As a result, less risk-related information will be available to the public (Mohobbot and Konishi, 2005). The purpose of RMD is to balance the conflict of interest between top management and shareholders, as well as between top management and other stakeholders (Callahan and Soileau, 2017). Furthermore, RMD is used to examine whether top management can follow firm strategic plans through their actions and activities. RMD in organizations has both advantages and disadvantages. On the one hand, RMD can address issues such as information asymmetry and conflicts of interest between senior management and shareholders (Jensen and Meckling, 1976). Corporations, on the other hand, must spend more money and time on disclosures (Linsley and Shives, 2000). Furthermore, the disclosures may divert an investor's focus away from making a decision.

The basic objectives of RM are to predict uncertain occurrences and developments in the environment (Beasley et al., 2008), decrease risks that can negatively affect performance (Gordon et al., 2009), and optimize stakeholder values. The RMD of reducing risks and improving firm performance was the focus of the study's findings.

When it comes to the link between RMD and business performance, agency theory can explain why firms that make a lot of RMD perform better (Jensen and Meckling, 1976). This is due to the

fact that RMD will address the issue of information asymmetry, allowing shareholders to make more informed decisions. Furthermore, disclosing RM reduces agency costs and conflicts of interest between senior management and shareholders. RMD, on the other hand, has certain issues. First, while listed firms are required by the SE to publish their RM in annual reports, RMD by listed firms is still unregulated. As a result, corporations may not mention RM in their annual reports, but they must submit reports to the SE explaining why they did not report.

They may, however, only divulge RM to the degree necessary to fulfill SE's needs. Previous research on the influence of RMD on corporate financial performance produced conflicting results (Anton, 2018; Suttipun et al., 2018; Kakanda and Salim, 2017; Nahar et al., 2016; Bertinetti et al., 2013; Allayannis et al., 2012; Quon et al., 2012; Hoyt and Liebenberg, 2011; Gordon et al., 2009). Suttipun et al. (2018), Kakanda and Salim (2017), and Nahar et al. (2016), for example, discovered that RMD improves financial performance. This is because disclosures can aid in the resolution of conflicts of interest between senior management and shareholders (Shleifer and Vishny, 1997). Furthermore, disclosures can assist firms in reducing corporate risks, which leads to enhanced financial performance (Suttipun et al., 2018). (Bertinetti et al., 2013; Allayannis et al., 2012) revealed a negative relationship between RMD and corporate financial performance. Firms' performance may suffer as a result of the high expenditures and efforts required to implement and report RM. However, due to the fact that RM personnel and departments are separate from those who monitor firm success, (Quon et al., 2012; Anton, 2018), were unable to discover a relationship between RM and firm performance. The final research issue is that most previous literature on RMD has focused on developed countries (Anton, 2018; Bertinetti et al., 2013; Hoyt and Liebenberg, 2011; Gordon et al., 2009; Linsley and Shrivs, 2000) rather than emerging economies (Kakanda and Salim, 2017; Pallakul and Srijunpetch, 2007).

This study makes numerous expected contributions. In terms of predicted theoretical contributions, the agency theory will be evaluated to see if it can be explained using RMD in annual reports of publicly traded firms to reduce conflict of interest and knowledge asymmetry between shareholders and top management. Furthermore, the research will reveal the link between RMD and corporate financial success in emerging economies. In terms of projected practical contributions, publishing RM information may prevent conflicts of interest between shareholders and top management. Other stakeholders, such as investors, creditors, and policymakers, might

use corporate RMD to inform their own decisions, such as common stock investment, loan approval, and/or mandating disclosures. Legislators might take this current into account when determining how specific disclosure standards should be and how much leeway should be provided for management discretion regarding user demands.

3.3 The advantages of Integrated Risk Management

The firm's performance could be improved by implementing an effective and integrated RM strategy. To achieve good RM, it takes massive resource mobilization. As a result, the organization anticipates improved performance as a result of the RM system implemented (Pagach and Warr, 2011).

It goes without saying that effective RM improves the firm's understanding of potential risks and treats risk as an opportunity rather than a threat. Hence, integrated and effective RM is intended to enhance solid decision-making, which will ultimately improve firm performance by improving precision in balancing the risk-return tradeoff Gehner (2008).

The better the organization understands its inherent risks, the more confident it will be in pursuing possibilities. The effectiveness of RM enhances accountability among stakeholders, hence improving corporate governance effectiveness and strategic competitive advantages. Consequently, combining RM activities and documenting the RM process may have a higher impact on identifying business opportunities and facilitating the dissemination of knowledge and best practices. Integrated and comprehensive RM is expected to result in long-term resource allocation to improve the organization's performance. Andersen (2008) highlights the advantages of successful and integrated RM as follows:

3.3.1 Cost-effective Capital

Regardless of the debate, efficient RM reduces the likelihood of bankruptcy and the cost of borrowing financing. A Better RM will probably result in stable profits. A constant income keeps the firm quick enough to pay claims promptly, which is a sign of lower market and corporate risk. This makes it easier for the firm to obtain borrowing at a lower interest rate. More external demand for the firm's shares may result from lower earnings volatility. Prospective investors may be motivated to invest in the firm's projects because of the encouraging fact of lower volatility in earnings.

All of these factors may contribute to a reduced average cost of capital. As a result, the firm can obtain both debt and equity capital at a lower cost. A reduced average cost of capital, on the other hand, leads to improved corporate performance. As a result, it is believed that efficient RM leads to earnings stability and a reduced average cost of capital, which is eventually connected with higher corporate performance Botosan, C. A. (1997).

3.3.2 Transaction cost

Improper RM could threaten the firm's relationship with its stakeholders. The firm's day-to-day activities are linked to its customers, suppliers, and other partners. They are all external, and the corporation has little control over them. The failure of RM could have a negative impact on the perception of these critical factors. This leads to greater contractual costs for its stakeholders. Suppliers and customers may participate in negative bargaining in every transaction, potentially increasing transaction costs. Businesses must devote adequate attention to strengthening RM systems in order to satisfy their counterparts, such as customers and suppliers, so that a fair and win-win commercial engagement may be reached with all of the firm's counterparts (Abraham and Cox, 2007; Ntim et al., 2013).

3.3.3 Firm's Unique Asset

Stability in earnings also stimulates significant shareholders to invest more in the firm, believing that consistency in earnings means a lower probability of bankruptcy and a higher predicted future dividend and capital gain.

Large shareholders could lose their faith and not be prepared to make long-term commitments with the firm if the firm does not manage its risk correctly and shows bankruptcy risk signs. The firm's specific assets are the immediate sources of funding for profitable ventures. As a result, ineffective RM may divert this asset, resulting in the loss of future prospects.

RM that is effective is intended to persuade the firm's own shareholders to invest more in the firm's specific assets. The resource might be used to improve the manufacturing line and technical improvements, which could raise the firm's performance directly or indirectly. On the other hand, proper RM encourages customers, employees, suppliers, and other stakeholders to increase their investments in the firm's specific assets. This is a vital investment that will lay the groundwork for the firm's growth and competitive edge, (Jorgensen and Kirschenheiter 2015). In general, good

RM improves a firm's performance across three dimensions. For starters, a good signal of earnings stability improves access to external sources of credit with a lower necessary rate of return. Second, it facilitates cheaper and non-bargaining counterparty transactions, thereby decreasing the costs of transactions. Ultimately, it increases the confidence of the firm's own owners to invest more in the firm and motivates the firm's employees, customers, and suppliers to be more committed to the firm.

3.4 The Theoretical Framework of the Study

The economic theory approach and the social and political theory approach are the two main ideas that have been used to explain why a firm should disclose risk information. The agency theory, signal theory, and cost theories are all used in the economic theory approach to account for economic agents' desire to maximize their profits. In order to understand the motivations for RD, the social and political approach focuses on the connection between the firm and its stakeholders (Khelif and Hussainey, 2016). All of these theories have consequences for financial RD in terms of risk assessment, management, and communication to shareholders, with the goal of reducing information asymmetry and agent conflicts between firm management and stakeholders.

Despite the fact that all of the theories mentioned are relevant to the current research, signaling theory was chosen because it appears to work in involving stakeholders in firm performance evaluation and interpretation of the drivers and relationships between RD, RMD, and firm performance (Tabash, 2019; Dey et al, 2018).

3.4.1 Signaling Theory

When two parties (individuals or organizations) have access to differing information, signaling theory is useful for understanding their behavior. In most cases, the sender must decide whether and how to convey (or signal) that information, while the receiver must decide how to interpret the signal. In any social environment, signaling theory is concerned with how to solve challenges originating from information symmetry (Haniffa and Cooke, 2002). It indicates that asymmetry in information should be lessened if the party with more knowledge sends signals to other parties with similar interests.

A signal can be a visible action or structure that is used to represent the signaler's hidden attributes (or quality). The presumption behind sending a signal is that it should be beneficial to

the signaler (e.g., indicating a higher quality of its products compared with its competitors). In a market situation, the typical signaling paradigm happens between the supplier and the customer (Tabash, 2019; Dey et al, 2018). To begin with, when it comes to the vendor's products or services, the seller normally has a knowledge advantage over the customer. Buyers may have some general assumptions about purchasing (e.g., a certain proportion of items provided will be defective, and those faulty things should sell at a price of x , while the regular products should sell at a price of y).

The buyer will then evaluate the items equally based on a weighted average of the overall impressions. As a result, the seller with above-average quality items loses an opportunity since its products should sell at a higher price if the customer is aware of the superior quality of the products, but the seller with below-average quality products gains an opportunity (Linsley and Shrives, 2006). As a result, the vendor of high-quality goods has an incentive to emphasize the product's excellence to the consumer in order to justify the higher price. The signal must be difficult to reproduce by low-quality suppliers in order to be effective.

Signaling will be an iterative process that will continue until the greater price achieved surpasses the signaling expenses. When applied to a broad commercial situation, the traditional model can be read as follows: Initially, the management of a firm generally has more information about the firm's operations than the investors (e.g., the viability of a project, expected profits, or risk exposure). Because of the asymmetric information, investors are unaware of the firm's quality and are unable to discern between other businesses' quality. As a result, the business with a quality above average loses an opportunity because investors do not recognize its higher quality, while the firm with a lower quality gains an opportunity. In this situation, the high-quality firm has an incentive to emphasize its higher quality in order to attract additional investors Hayne E. Leland (1979).

According to signaling theory, organizations with excellent quality should communicate their benefits to the market. On the one hand, signaling would cause investors and other stakeholders to reconsider the firm's worth and make choices in the firm's favor. On the other side, a firm's popularity among diverse stakeholders would lead to greater investment and, as a result, lower capital-raising expenses. Firms may communicate information about themselves in a variety of ways.

3.4.2 Agency Theory

In 1976, Jensen and Meckling established agency theory. It serves as a source of information. A firm's connection between the principle and the agent is explained. The principle entrusts the agent with monitoring, controlling, and day-to-day decision-making authority with the idea that the agent will maximize their wealth. This type of connection is based on a contract between the agent and the principal to keep the delegated authority at the same level (Jensen and Meckling, 1976).

According to agency theory, both parties are presumed to be acting in their own best interests and maximizing their own gains, regardless of the contractual connection. Conflict arises as a result of the conundrum that the principal and agent, despite working toward the same objective, may not necessarily have the same interests. The separation of ownership and control in organizations causes agency conflicts (Fama, E. F and Jensen, M. C., 1983). Furthermore, Fama, E. F. (1980). It is Suggested that human behavioral assumptions are the primary source of conflict, since individuals conduct in a way that allows them to practice their constrained rationality when making decisions.

Two issues may arise as a result of agency conflicts. The first issue is the prospect of information asymmetry arising as a result of a conflict of interest between the principal and the agent, in which the principal is the less informed party and the agent may engage in opportunistic behavior by utilizing value-relevant insider information. The second issue occurs when the agent misallocates firm resources in order to acquire the faith of dominant shareholders while ignoring the minority owners (Eisenhardt, (1989). These difficulties might be the source of information asymmetry issues between the board of directors and the shareholders.

Some partial remedies to lessen information asymmetry have been proposed in the literature, such as releasing more information on firm performance on a regular basis (i.e., quarterly, semiannual reports). This approach may have an unavoidable expense known as the agency cost. Such expenses can be reduced to reduce information asymmetry and show market participants that management is giving all essential information about the firm's genuine performance (Nyberg et al., 2010). Furthermore, according to Hart (1995), assigning certain internal governance procedures to decrease the personal influence of directors on business conduct is another possible option to lessen the impact of incomplete contracts and agency cost concerns.

Previous research on the influence of periodical information on reader market behavior has been conducted (financial and non-financial). The narrative disclosures were shown to have an impact on market participants' decision-making (Frazier et al., 1984; Kloptchenko et. al., 2004). Shareholders (principals) are still unsure whether the directors (agents) have put up their best efforts to increase wealth rather than pursue their own self-interest (Hillman and Dalziel, 2003; Lasfer, 2006). Although excessive information in corporate disclosure can reduce information asymmetry and agency conflict (Patelli and Prencipe, 2007; Kothari et al., 2009), some studies have found that due to data overload, increasing the proportion of narrative disclosures can mislead market participants' understanding (Beccalli et al., 2018). Therefore, it is necessary to impose some type of governance on publicly listed firms to provide a framework to aid in organizing the board's practice of guiding, bending, and disclosing information. (Shleifer and Vishny, 1997).

Firm performance and agency theory are inextricably intertwined. Managers of prosperous firms reveal more information about their financial results and accomplishments in order to pursue self-interested goals such as retaining their jobs and raising their pay (Singhvi and Desai, 1971; Wallace et al., 1994; Haniffa and Cooke, 2005). Management disclosure, according to (Brennan and Merkl-Davies, 2013), may be utilized to influence the reader's perception of the firm's success by stressing or obscuring the stated content.

Each member of the financial reporting process has a role to play in ensuring that the financial data given allows users to make well-informed choices. Directors, on the other hand, are accountable for how successfully a firm meets its financial reporting duties. As a result, the traits of these directors have been shown to have an impact on the culture and environment of the organization. As a result, the firm's stated disclosure reflects the directors' honesty or unethical behaviors.

According to agency theory, board size and independent directors are firm board features that have been shown to have a beneficial impact on firm disclosure quality and performance (Daily et al., 2003).

3.5 Reviews literature related to risk management disclosures

Most of the literature indicated a positive association between the two variables, despite the fact that there were few prior studies examining the impact of RMD on firm financial performance

(Suttipun et al., 2018; Kakanda and Salim, 2017; Nahar et al., 2016; Hoyt and Liebenberg, 2011; Gordon et al., 2009). For instance, (Nahar et al., 2016) found a connection between RMD and the financial performance of Australian banks. RMD has a positive effect on the performance of listed firms on the Nigerian SE, as claimed (Kakanda and Salim, 2017).

Through media such as annual reports, stand-alone publications, and/or websites, RM can cover operational risk, financial risk, legal and regulatory risk, substantial shareholder risk, and contingency risk. RMD reporting is not yet mandatory for publicly traded firms, though. This is because RMD has advantages and disadvantages that firms must consider. According to Jensen and Meckling (1976), RMD can, on the one hand, serve to remove knowledge gaps and conflicts of interest between senior management and shareholders. On the other side, firms must invest more time and resources in disclosures (Linsley and Shrivs, 2000). Additionally, the disclosures might make it harder for investors to make choices (Rose and Shevlin, 2004).

3.6 Reviews literature related to voluntary disclosures.

The current definition, a thorough awareness of the risks around the firm Holton (2004), encompassing both the potential for profit and loss, dominates the majority of risk analytics and research. Risk, for instance, is described by (Solomon et al., 2000) as "the uncertainty associated with both a prospective benefit and loss" (p. 605). RD, according to (Beretta and Bozzolan, 2004), is "the communication of information concerning a firm's strategies, operations, and other external factors that have the potential to affect expected results" (p. 269). There is also a two-sided definition that allows the Board of Directors to report risks as disclosures that "... inform the reader of any opportunity or possibility, or of any hazard, risk, damage, threat or exposure, which has already affected the firm or may affect the firm in the future." (Dobler et al., 2011; Mokhtar and Mellett, 2013; Probohudono et al., 2013; Zhang et al., 2013).

Certain RDs are required, while others are optional. Financial reports whose breadth and coverage are prepared in accordance with national reporting requirements or International Accounting Standard Board (IASB) standards are considered mandatory disclosure. Material events, director share purchases and sales, and other information important to investment choices must also be disclosed by publicly traded firms. Financial statements with footnotes, as well as director-level, management, and corporate governance reports, are typically required reports,

however, regulations vary by nation United Nations Conference on Trade and Development (UNCTAD) (2017).

RD is intended to be beneficial to investors since it highlights the extent of any business's projected losses – both conceivable and potential – as well as management initiatives to mitigate their predicted negative consequences (Santos and Coelho, 2018). Due to the market's impression of continued corporate earnings that are quite susceptible to specific risk variables, risk reporting might explain unanticipated swings in stock prices Jorion (2002). According to (Elshandidy et al., 2013), the disclosure of risk information is crucial for analyzing the firm's future cash flow generation, as investors estimate the impact of uncertainty elements on the firm's value.

3.7 Rational for disclose Risk information

Studies generally discover that firms have a strong interest in disclosing risk information since it helps investors and allows them to better manage resources. Investors' primary concerns revolve around measuring and managing financial risk (Sheraz and Nasir, 2021). As a result, in the current environment, RD motivation is determined by the circumstances in which RD is important, specifically when the risk level of investment is high (Abraham and Cox, 2007; Linsley and Shrivess, 2006), putting pressure on firms to attract financial analysts (Sundgren et al., 2005). Furthermore, in today's world, businesses that operate in fast- changing contexts are increasingly vulnerable to unexpected occurrences (Bakos and Dumitraşcu, 2021).

Firms are more eager to reveal risk information in these situations. The desire to reveal risk information may also be influenced by its potential usefulness, which has been extensively researched in the past (e.g., Cole and Jones, 2004; Linsmeier et al., 2002; Rajgopal, 1999; Venkatachalam, 1996). Using proprietary cost theory to conceptualize reporting attitudes regarding the cost and benefits of RD, several scholars suggested that this information could have a positive market response (Verrecchia, 1983; Healy and Palepu, 2001; Abraham and Shrivess, 2014; Leopizzi et al., 2020).

Numerous prior studies have looked at the influence of RD on market indicators in the United States, such as market liquidity (Campbell et al., 2014), investor-perceived risk, and the cost of capital (Kravet and Muslu, 2013). The links between firms and their stakeholders can be studied by analyzing RD from the perspective of stakeholder theory, which includes understanding how

organizations respond to stakeholder expectations for information on risks and opportunities Deegan (2000). The first hypothesis, based on the prior findings, is as follows:

H1: Risk disclosures have a positive impact on firm performance.

Table 31. outlines past research:

Table 3.1: Summary of Previous Studies

Authors	Methodology	Findings	Gap of Knowledge, or Disagreements
Tabash (2019)	The information was gathered by analyzing the content of annual reports and financial statements from all fully-fledged Islamic banks operating in the UAE from 2009 to 2013.	The findings of this study also provide additional insight and a better knowledge of RD processes in the UAE, assisting banks in better disclosing their risks, improving their disclosure practices, and improving the quality of their financial reports.	Our present research focuses on non-financial firms, while our previous research focused on the financial industry.
Reza Gholami Jamkarani and Ali Lalbar (2018)	RM content analysis is based on the board of directors' reports and audited financial statements. All sentences disclosed for a certain risk are deemed information disclosure.	The financial incentives of board members are effective on the quality and extent of a firm's RD.	Poor or inaccurate or insufficient criticisms of corporate disclosure in regard to governance procedures, particularly RM activities, have long been a hot topic.
Santos and Coelho (2018)	Data acquired from the firms' Reference Forms, which are published on the website of the So Paulo Stock, Commodities, and Futures Exchange, 100 firms (300 firm year reservations) throughout a three-year period from 2012 to 2014.	Risk factor disclosure has a statistically significant impact on business valuation.	The study was conducted in a Brazilian market, which is not the same as the present study's context.
Alzead and Hussainey (2017)	Quantitative approach for the collection and analysis of the datasets using a	Over the period of the study, Saudi firms experienced an	We depended on the index conducted by their study and modified

	sample of non-financial firms listed on the Saudi SE (Tadawal) over the period of 2010 to 2014.	increase in their risk reporting activity.	it from 11 risk factors to only 10 factors.
Callahan and Soileau (2017)	A panel data set obtained via 11 web-based surveys and then matched to archival financial statements over the three-year period from 2006 to 2008.	A positive relationship between ERM process maturity and operating performance.	This study confirms the positive of the RM and firm performance measured by Return on Assets (ROA) and Return on Equity (ROE) but it does not provide any evidence of the moderating effect of RMD on the relationship between RD and firm performance measured by EPS.
Mohammed and Knapkova (2016)	A sample of 12 firms listed in Prague SE and the data was extracted from the annual reports for six years from 2009–2014.	There is a positive relationship between total RM performance in firms which have invested higher level of intellectual capital.	The study focuses on RM while our current study focuses on disclosures of the risk and its management.
Agustina and Baroroh (2016)	A sample of 53 banking firms listed in Indonesia SE from 2011 until 2013. Path analysis technique is used.	Financial performance is unable to mediate the influence of ERM upon the firm value.	We modified our investigation perspective in the light of the results of this study.
Jafari et al. (2011)	A sample of 52 firms listed in Tehran SE and the data was extracted from the annual reports for six years from 2003 to 2008.	A significant positive association between total RM and firm's performance is confirmed.	The study examines the association of total RM (not RMD) and firm's performance in different environment.
Abraham and Cox (2007)	A sample of non-financial firms is included in UK FTSE 100 index. Data was extracted from the annual reports for year 2002 and analyzed using content analysis method.	A negative relationship between share ownership by long-term institutions and corporate risk reporting. A positive relationship between both number of executive and the number of independent	Studying RD from the perspective of the corporate governance and the ownership characteristics.

		directors and corporate risk reporting.	
Linsley and shrives (2006)	An exploratory comparative study includes a sample of 18 Canadian and UK banks. Data was extracted from the annual reports.	No difference in disclosure between Canadian banks and their UK counterparts. A positive association between bank size and number of risk definitions and total quantity of RD. No positive association between bank profitability and level of risk and total quantity of RD.	Study is applied on financial sector and examined the association between RD with different factors.

RM is a collection of methods that aid in the ongoing development of the decision-making process, which in turn aids in the preservation of the organization's assets and reputation, and therefore the achievement of the highest levels of profitability. Although there is a lot of interest in RM strategies in the financial services industry (Callahan and Soileau, 2017), they've also gotten a lot more popular in the non-financial sector. The rising interest in RM nowadays is due to high levels of competitiveness and the rapid pace at which changes occur, which have nearly completely destroyed organizations' capacity to foresee, implying higher levels of risk. It can also be said that competitive, technological, social, and political conditions have increased the potential impact of operations-related failures, as well as the dividing changes in society, technology, science, and communication between society at large and businesses, which have elevated RM to a new level of importance.

There is a lot of evidence that there is a link between RM strategies and a firm's performance. There is evidence from Malaysia that RM adoption has a major impact on corporate performance. The relationship between improved operational performance and the maturity of RM procedures was proven by Callahan and Soileau (2017).

While there is evidence of a favorable association between RM and firm performance, other research has verified the relationship's absence and weakness. For example, when (Agustina and

Baroroh, 2016) looked at the mediation effect of financial performance on the link between RM and business value, they discovered that RM had no influence on firm value or profitability. In addition, the study found that financial performance had a negligible mediation impact. They recommend that further study be done to look at RM implementation from different angles since this might lead to diverse outcomes.

Also, according to (Laisasikorn and Rompho, 2014) there is a weak positive correlation between the success of the RM system and performance measurement system on the one hand, and the firm's financial performance as measured by ROA, ROE, and EPS on the other. Managers must, however, build, enhance, and use both systems in order to obtain a competitive edge and maintain the firm's growth. The second hypothesis, based on the prior findings, is as follows:

H2: Risk Management Disclosures have positive impact on firm performance.

As previously stated, the signaling hypothesis helps explain why corporations willingly publish information in their annual reports (Haniffa and Cooke, 2002). According to signaling theory, a firm's information disclosure may be viewed as a signal to capital markets, aimed at reducing knowledge asymmetry between management and stakeholders and increasing the firm's value (Connelly et al., 2011).

RD has become a critical requirement in the recent business context to achieve transparency and credibility in reporting, particularly to investors due to the need to assess the risks that the firm is exposed to, as well as the potential harmful impacts of these risks on financial performance. Risk information serves a dual critical role in helping corporations manage threats and uncertainty, as well as lowering the cost of capital, while also serving as a source of information for investors (Linsley and Shrives, 2006; Habtoor et al., 2018).

However, there are numerous concerns about the value and relevance of RD, including a lack of correlation between RD and potential financial consequences, the appropriate quantity and quality of disclosures, the use of generic language in disclosures, and measurement and materiality issues. These difficulties might be key indicators of a lack of correlation between RD and business financial performance as assessed by stock profitability (a direct representation of investors' decision-making).

We might claim that by enhancing the materiality of risk information in annual reports, the stated strategies or actions that management should take to avoid these negative consequences can improve the quality of reporting. As a result, it helps alleviate investors' concerns about a firm's long-term performance in terms of risk, changes, and threats.

However, as previous research has shown, there is a significant discrepancy in the conclusions regarding the influence of RD and RM on firm performance. This discrepancy in previous findings can be attributed to changes in the types or amounts of RD and RMD practiced, various application settings, or the type and characteristics of selected organizations (financial or nonfinancial). In prior investigations, such as (Alzead and Hussainey, 2017) these probable explanations were noted as research limitations.

From many perspectives, these variations might be attributed to an emphasis on analyzing the influence of RD and RM on firm performance separately and independently. As a result, based on the above reasoning, the third hypothesis is as follows:

H3: Risk management disclosure positively moderates the relationship between risk disclosure and firm performance.

Chapter Four

Research Methodology

4.1 Introduction

This chapter gives an in-depth examination of the procedures used to achieve the research's objectives. This chapter discusses the research's philosophy, strategy, and design, as well as the data collection techniques, sample procedures, and data analysis methodologies used to achieve the stated research objectives.

4.2 Research Logic

Research logic is a set of beliefs about how evidence on a topic should be collected, analyzed, and utilized. The assumption, knowledge, and nature of the investigation are all related to research logic. It is concerned with a specific method of acquiring knowledge. The procedures or strategies used to find, select, process, and analyze information about a topic are referred to as research methodology. The methodology element of a research paper allows the reader to objectively examine the overall validity and reliability of the study. The methods section provides solutions to two major questions: How was the information gathered or generated? How was it examined?

Epistemology is the philosophy of knowledge that deals with how and where knowledge is obtained. The philosophical stance should be made explicit from the start since the way the world is perceived and the information gathered has a profound impact on data interpretation. For example, knowledge might be empirical or intuitive. In contrast to intuitive knowledge, which is based on beliefs and faith, empirical knowledge is based on everything that can be objectively characterized and demonstrated. With this basic example, it becomes evident how knowledge is understood, how it influences the choice of methodology and procedures, and how it affects the data analysis, Gray et al., (2014).

4.2.1 Positivism

Positivists think that reality is stable and can be viewed and described objectively, that is, without interfering with the phenomena being researched (Levin and Gaeth, 1988). They argue that phenomena must be separated and observations must be repeatable. This frequently entails

manipulating reality with variations in only one independent variable in order to identify regularities in and build links between, some of the fundamental aspects of the social environment.

Forecasts can be made based on previously observed and described realities, as well as their interrelationships. "Positivism has a long and illustrious history". It is so ingrained in our culture that knowledge claims that are not founded on positivist philosophy are simply discarded as historical and thus invalid (Hirschheim (1985). This viewpoint is indirectly reinforced by (Alavi and Carlson, 1992), who discovered that all empirical investigations were positivist in methodology in an examination of 902 IS research articles. Positivism has had a particularly fruitful relationship with the physical and scientific sciences.

4.2.2 Interpretivism

Interpretivists argue that reality can only be fully comprehended through subjective interpretation and intervention. The study of phenomena in their natural surroundings is essential to interpretivist logic, as is the recognition that scientists cannot resist influencing the phenomena they research. They acknowledge that there are numerous interpretations of reality, but insist that these interpretations are part of the scientific knowledge they seek. The tradition of interpretivism is neither less magnificent nor shorter than that of positivism.

4.3 Research Techniques

According to Heeks and Bailur, (2007) research technique describes the systematic and logical approach to data collection and analysis used to generate information. According to (Burrell and Morgan, 1979) the researcher assumes on the character of society, that is, whether society advances rationally or from a fundamental transformation standpoint, in creating philosophical perspectives in research.

This assumption aids the researcher in determining the modes of advancement and the nature of knowledge (Saunders et al., 2007). As a result, the study's research philosophy is mostly dependent on some fundamental assumptions of the researcher's worldview. According to (Holden and Lynch, 2004) a researcher's assumptions are linked in the sense that their ontological perspective influences their empirical belief, which influences their view of human nature; as a result, the researcher's choice of research design logically follows the researcher's presumptions.

According to (Saunders et al., 2007) there are three approaches to studying philosophy: epistemology, ontology, and axiology.

4.4 Research Strategy

The data for dependent and independent variables were collected using content analysis methods based on the audited financial statements and annual reports from 2012 to 2021 available on the GCC Stock Exchange and their firm's own websites. A purposive sampling strategy was utilized to select 80 non-financial firms for the study. Industrial, consumer non-cyclicals, real estate, basic materials, energy, technology, consumer cyclicals, utilities, academic and educational services and multiline utilities.

Different disclosure indexes have been used to quantify RD and RMD (Mokhtar and Mellett, 2013; Alzead and Hussainey, 2017). For example, whereas (Mokhtar and Mellett, 2013) used a six-risk-category disclosure index (Alzead and Hussainey, 2017) utilized an 11-risk-category disclosure index. However, the current study employs a constructed unweighted index that includes ten risk categories, including reputation risk, credit risk, climate change risk, liquidity risk, interest rate risk, foreign currency risk, equity price risk, risk of an outbreak of a pandemic or continuous diseases, litigation risk, and operational risk, which are the most commonly reported risk types in the sample firms' annual reports.

A dichotomous scoring method is utilized to eliminate subjectivity. This method allows for independent examination without having to rely on the opinions of a specific user group (Mokhtar and Mellett, 2013). A '1' grade is given to firms that reveal any risk elements. A firm receives a '0' for non-disclosed factors. Following the completion of the assessment, the sum of the scores is used to create a single composite score for disclosure. Scores for RMD are calculated using the same method. Firms that reveal their management of any risk element are awarded a '1', whereas firms that do not disclose their management of any risk factor are given a '0.' Following the completion of the assessment, the sum of the scores is used to create a single composite score for disclosure.

4.5 Research Population

Polit and Hungler (1999) defined population as the total of all subjects who fulfill specific criteria, covering the whole group of people who are of interest to the scientist and to whom the

study findings may be extrapolated. The population of the research included all enterprises registered on the GCC stock exchange as of the end of the fiscal year in 2021.

4.6 Research Sample

Due to the difficulty of using the complete population, the study sample consists of 80 firms registered on the GCC stock exchange. According to the GCC Fact Books, by the end of 2021, the GCC stock exchanges would have listed 735 firms. From 2012 until 2021, the initial sample includes all firms registered on GCC stock markets.

The analysis excluded banks, financial institutions, and insurance firms because they are subject to different rules than other businesses. In order to contribute to the literature, this study examined all publicly traded firms that released annual reports on the SE of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. Nonetheless, the initial sample encountered a number of difficulties, including:

- Not all of the firms released ten- year annual reports during the study period. (from 2012 to 2021).
- The Thomson router's data and the financial statements of the listed firms chosen for the sample were compared, and it was found that there were some differences in the data.

Due to the difficulties, several of the listed firms were eliminated from the initial sample. As a result, the study sample was reduced to 80 publicly traded firms (firm-year observations covering the periods from 2012 to 2021).

Figure 4.1: GCC listed firms

Country	Listed firms
Bahrain	42
Kuwait	167
Oman	110
Qatar	51
Saudi Arabia	227
UAE	138
Total	735

4.7 General Characteristics about the Sample

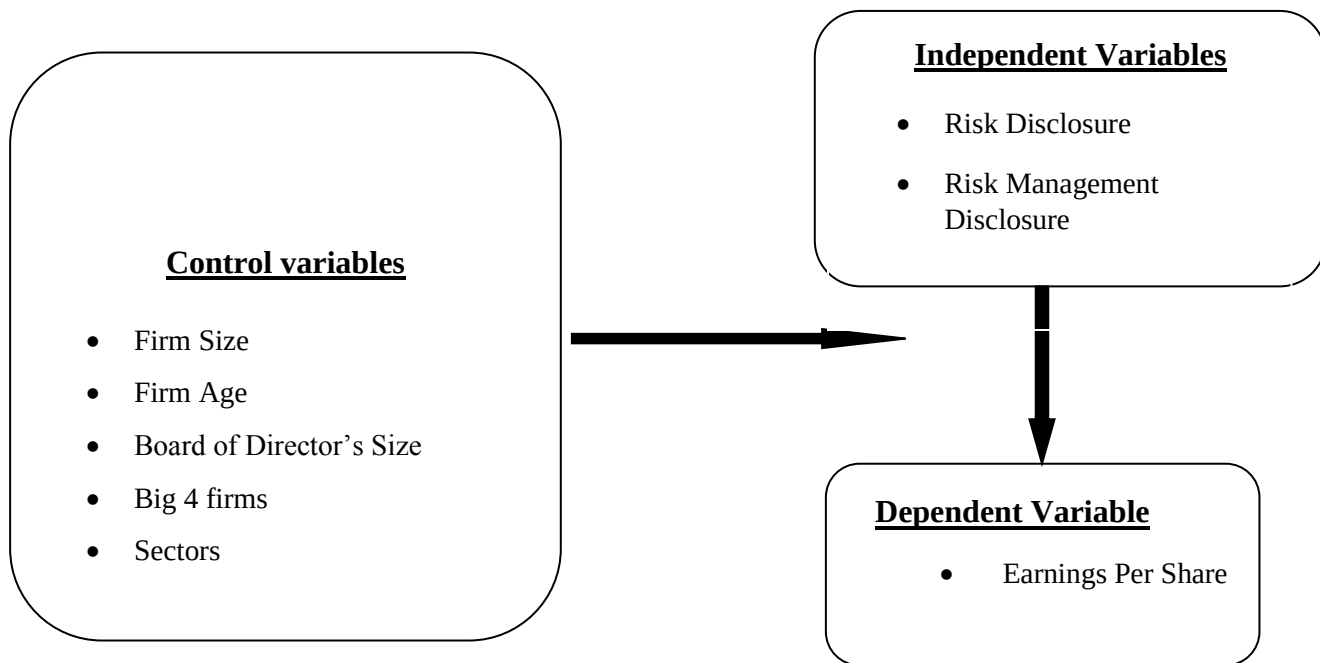
The panel data of this study contains 80 firms and information on each firm was taken for 10 years (2012-2021), so, the sample size is 800. Table 4.1 shows that the biggest portion of the firms ($n = 21$, 26.25%) are in the industrial sector, then followed by the consumer non-cyclicals sector ($n = 13$, 16.25%), while each of the other sectors constitutes less than 15% of the sample. In addition, we may order the firms according to the presence of their country of origin as follows: UAE ($n = 18$, 22.5%), Kuwait ($n = 17$, 21.25%), Saudi Arabia ($n = 14$, 17.5%), Qatar ($n = 11$, 13.75%), and Bahrain and Oman (each with $n = 10$, and represented at 12.5% in the sample).

Table 4.1: Sector and Country of Origin for firms in the Sample

Categorization by:	Categories (N, %)
Sector	Industrial (21, 26.25%)
	Consumer Non-Cyclicals (13, 16.25%)
	Real Estate (11, 13.75%)
	Basic Materials (9, 11.25%)
	Energy (8, 10%)
	Technology (7, 8.75%)
	Consumer Cyclicals (5, 6.25%)
	Utilities (4, 5%)
	Academic and Educational Services (1, 1.25%)
	Multiline Utilities (1, 1.25%)
Country	UAE (18, 22.5%)
	Kuwait (17, 21.25%)
	Saudi Arabia (14, 17.5%)
	Qatar (11, 13.75%)
	Bahrain (10, 12.5%)
	Oman (10, 12.5%)

4.8 Description and Measurements of Variables

Figure 4.2: Types of Variables



4.8.1 Dependent Variable

Earnings per Share (EPS):

EPS is determined directly from the individual firm's financial statements each year. The EPS is one metric that may be used to gauge a firm's financial health. EPS is the fraction of a firm's net income that would be assigned to each outstanding share if all of its earnings were paid out to its shareholders.

Analysts and traders commonly use EPS to assess a firm's financial strength. It is frequently regarded as one of the most essential factors in determining the value of a stock. Many investors still use EPS to determine a firm's profitability. In fact, it's commonly referred to as the bottom line—a physical and symbolic expression of a firm's worth.

A higher EPS indicates that a firm is profitable enough to pay its shareholders more money. For example, if a firm's earnings grow, it may increase its dividend.

Investors frequently compare the earnings per share (EPS) of two companies in the same sector to determine how they differ. Investors may also look into EPS growth trends to get a better sense

of how successful a firm has been in the past and how profitable it will be in the future. A firm with consistently growing profits per share is seen as a more reliable investment than a firm with declining or fluctuating earnings per share.

Even now, EPS is largely regarded as the most popular and commonly utilized financial performance metric. EPS also serves as the cornerstone for strategic choices like stock valuation, management performance incentive schemes, and merger and acquisition discussions. When there is positive EPS growth, management is praised since it is straightforward to compute and understand. When a manager's remuneration is tied to the firm's EPS performance, it's no wonder that EPS is important to them.

4.8.2 Independent Variables

As earlier stated, prior studies have used various mechanisms of RD to examine their relationship with management performance. Therefore, this study uses firm size, FA, board size, big 4 firms, and sector. RMD considered independent variables to empirically and theoretically review their relationship with RD. Details on these independent variables are as follows:

A. Risk disclosure

RD is information that describes a firm's significant risks and the economic impact they are likely to have on its present and future performance. RD has become an essential component of business disclosure since it enhances openness and investor confidence in developed countries and markets. High-quality RD helps to maintain financial stability by giving investors and other market participants better knowledge of a firm's risk exposures and RM methods Botosan (1997).

B. Risk Management Disclosure

If the risk measures presented are also used for internal risk management, investors may find it interesting to see how management has responded to them. Historical return data allows investors to judge how well firms have predicted and managed risk exposures. Investors and regulators are generally more sensitive to specific risks after they become material during a crisis (Solomon et al., 2000). As a result, firms are frequently required to or voluntarily increase risk disclosure in specific areas. For example, following large oil spills in bodies of water, operational risk disclosures in the extractive sector increased, and credit and liquidity risk declarations in banks were developed during the financial crisis. Further evaluation of the enhancements may reveal

options for improved disclosure of other categories of risk. Furthermore, it is critical to improve the integration of risks indicated in financial statements and sustainability reports.

C. Risk disclosure index

Although a disclosure index is effective for tracking cross-sectional variation in disclosure levels, it necessitates subjective evaluations from staff members who are in charge of implementing the disclosure checklist Botosan (1997). The disclosure of adequate, timely, and reliable risk information has a significant impact on the proper functioning of financial markets and economic systems since investors rely heavily on this information. High-quality RD helps to maintain financial stability by giving investors and other market participants a better knowledge of a firm's risk exposures and RM methods. The suggested RD categories considered are as below:

- **Litigation Risk**

- ❖ Litigation risk is the possibility that the firm will be sued.
- ❖ This legal action could be brought as a result of the firm's products, services, activities, or another occurrence.
- ❖ Given the enormous potential payoff for plaintiffs, large firms are especially vulnerable to legal action.
- ❖ Assessing litigation risk entails considering potential resolutions (e.g., settlements) as well as the costs of a legal defense.
- ❖ Legal action might arise from a firm's consumers, vendors, other firms, or even shareholders.

When the projected costs of a lawsuit are highest, that is, when the earnings news is more unfavorable, there is probably more incentive to warn of bad earnings news. Skinner (1994) finds some evidence that earlier voluntary sharing of negative news is related to lower settlement amounts after controlling for managers' incentives to foresee bad news. In related research, Field, (Lowry and Shu, 2005) discovered that preemptive disclosure may prevent some types of litigation by using a simultaneous equations approach to control for the possible endogeneity between earnings warnings and litigation.

- **Reputation Risk**

The damage that might occur to a business when it fails to satisfy the expectations of its stakeholders and is consequently negatively perceived is referred to as reputational risk. It has the

potential to affect every business, regardless of size or industry. A firm's most valuable asset is its reputation, which is also the most challenging to regain once lost. Scandizzo (2011). Financial institutions whose business models are built on trust need to manage reputational risk more than others. (Gatzert, 2015; Heidinger and Gatzert, 2018; Scholtens and Klooster, 2019). For instance, the United Bank of Switzerland (UBS) suffered a \$2 billion operational loss as a result of the 2011 rogue trader controversy. In addition, the firm's reputation suffered, and its market value finally dropped by 6.3 billion dollars (Eckert and Gatzert, 2017).

What are the sources of reputational risk?

Reputational risk comes when the expectations of stakeholders - such as customers, employees, third party suppliers, investors, and regulatory agencies - are higher than the reality of what the organization delivers. But what is the source of this disparity? And what sorts of reputational risks are there?

- ❖ Poor workplace operations and behavior: The activities of employees, especially top management, and any third parties with whom the firm collaborates can have an impact on its reputation. Poor behavior by the firm's Chief Executive Officer (CEO) or even a single employee - could result in unfavorable media coverage and other negative implications for the firm.
- ❖ Inadequate service and product quality - Flaws in the firm's systems, procedures, and goods can all contribute to a tarnished reputation. In manufacturing, for example, a bad product that must be recalled may cost the firm the trust of its stakeholders. In financial services, a mismanagement or breach of sensitive consumer data could potentially lead to a loss of confidence in the firm.
- ❖ Failure to adapt - According to the Harvard Business Review, reputational risk can develop when organizations fail to keep up with changing stakeholder attitudes. Expectations evolve throughout time, and they differ among regions and countries. The firm must always be able to comprehend its stakeholders. It is also critical to keep updated on regulatory and industry requirements so that the firm can respond swiftly and effectively to any changes.

Another way to look at reputational risk is that it might arise from other risks that the organization faces (Borghesi and Gaudenzi, 2012). To fully defend its reputation, it must guarantee that all RM areas are covered.

Reputation is a two-edged sword: on the one hand, it helps all stakeholders; on the other hand, it puts the firm in danger of losing its reputation (Eccles et al., 2007).

- **Credit Risk**

The likelihood of a loss due to a borrower's failure to repay a loan or satisfy contractual commitments is referred to as credit risk. It traditionally refers to the risk that a lender will not obtain the owed principal and interest, resulting in a disruption in cash flows and increased collection costs.

Credit Risk Management is a multi-step process that can be divided into two broad groups. They are as follows:

- ❖ Measurement
- ❖ Mitigation

The firm, the sector it operates in, or the management team can all serve as qualitative indicators of a borrower's credit risk. For instance, while evaluating the firm's credit risk, debt market participants frequently take into account management's competence and moral character as well as the firm's competitive position within the industry. (Ganguin and Bilardello, 2005; Bonsall et al., 2017). Prior research shows that firms with higher risks prefer to highlight those concerns in firm disclosures, and that firm disclosures are likely to include qualitative information pertinent for assessing credit risk. (Campbell et al., 2014).

- **Liquidity Risk**

- ❖ The ability of a firm to pay its debts without incurring catastrophic losses is referred to as liquidity.
- ❖ When determining the level of risk within a business, investors, managers, and creditors employ liquidity measurement ratios.
- ❖ Liquidity risk occurs when a corporation is unable to satisfy its short-term loan obligations.

- **Interest Rate Risk**

- ❖ The possibility that a change in overall interest rates will affect the value of a bond or other fixed-rate investment is referred to as interest rate risk.
- ❖ Bond prices decline as interest rates rise, and vice versa. This means that the market price of old bonds falls to compensate for the lower interest rates of new bond offerings.
- ❖ The tenure of a fixed income security is used to calculate interest rate risk, with longer-term bonds being more sensitive to rate changes.
- ❖ Interest rate risk can be mitigated by diversifying bond maturities or hedging with interest rate derivatives Banks, E (2005)

- **Foreign Currency Risk**

By definition, foreign exchange risk is the chance for a firm to be affected by a shift in the exchange rate between its local currency and the currency used in a transaction with a foreign country.

The value of a currency in the foreign exchange market, commonly known as Foreign Exchange Market (FOREX), is represented in terms of the value of another currency, which determines its exchange rate. Exchange rates are established over the counter, often depending on factors that are impossible to predict, such as interest rate differentials, commerce, or even a country's political stability, making them extremely unpredictable.

Foreign exchange risk is a big concern for finance departments since the exchange rate of currencies will almost surely fluctuate between the contract's completion date and the cash flow date corresponding to the payment Lustig and Verdelhan (2007)

- **Equity Price Risk**

The risk associated with equity price volatility is the danger of a fall in the value of a share or a portfolio. Equity price risk can be either systematic or ad hoc. Diversification can decrease unsystematic risk, but not systematic risk. Equity price risk is systemic in a global economic crisis since it affects numerous asset classes.

This risk can only be hedged in a portfolio. For example, if an investor holds numerous assets that reflect an index, the investor might mitigate stock price risk by purchasing put options in the index exchange-traded fund (Roulstone, D. T. (1999).

- **Risk of Outbreak or Pandemic Risk**

For many of us, life may feel irrevocably divided into before and after the Coronavirus Disease of 2019 (COVID-19) epidemic, which has meant that nothing will ever be the same again. However, scientists have long warned about such an event. Statistics now appear to demonstrate that not only are pandemics likely, but their likelihood is only increasing.

True, this was perhaps the first time that most of the world was subjected to rigorous lockdowns, mobility restrictions, and quarantines at the same time, but comparable measures have been implemented locally in recent decades, such as during the severe acute respiratory syndrome (SARS) outbreak in 2003, Abraham, T. (2011)

- **Operational Risk.**

Operational risk is the possibility of suffering a loss as a result of subpar or ineffective internal procedures, personnel, systems, or unfavorable outside circumstances that could impair business operations. Losses in money can happen directly or indirectly. Poor customer service, for instance, could cost a firm its reputation or a badly trained employee could miss out on a sales chance. Operational risk can relate to both the risk associated with operating a corporation as well as the strategies employed by management to create, communicate, and enforce policies.

A firm's reputation and the financial line could be damaged by organizational failures that result from overlooked problems and control errors, whether they are small or significant. Despite being a part of enterprise risk management, operational risk management does not cover financial, reputational, or strategic risks Moosa, I. A. (2007).

- **Climate change risk**

Climate threats are becoming increasingly important in our modern economy. Climate change is certainly a material societal and corporate issue, as it is occurring faster than expected and already affecting our planet, society, and economy.

Organizations must thus identify and report their climate risks as soon as possible in order to lessen the serious effects of climate change and become more resilient. Furthermore, clarity about climate risk exposures and possibilities is critical for making sound investments Christophers, B. (2017).

4.8.3 Control Variables

A. Firm size

A firm's size is a measurement or scale that indicates the size of a business. A firm's total assets and total sales typically indicate its size. The size of a firm is vital since it has a substantial impact on its efficiency and profitability, according to Fiegenbaum and Karnani (1991). Realizing a firm's size, as it influences firm size and profitability, is one of the most crucial entrepreneurial decisions in a business organization. The term "size of business" refers to the extent of a firm's organization and activities. It is critical to grasp the words "plant size," "firm size," and "industry size" in this context.

Plant refers to a location where items are manufactured. It depicts a manufacturing unit in which all necessary operations for the production process are provided. A 'firm' is defined as an entity that owns, operates, and controls a plant or a group of plants, as well as provides for product marketing, financing, and other operational needs. The term "industry" refers to the collection of all businesses that produce related goods. Hammerschmidt, R. (2014).

B. Firm age

The number of years a firm has been in business is referred to as its age. Although some argue that listing age should describe the age of the firm, we defined FA as the number of years after its inception (Shumway (2001). According to him, listing age is more cost-effective because it marks a turning point in the firm's history. A firm becomes a legal entity through incorporation. As a result, we prefer to use the year of incorporation to determine the age of a firm.

C. Board Size

For each accounting year, board size refers to the total number of directors on each sample firm's board of directors, which includes the CEO and Chairman. Outside directors, executive directors, and non-executive directors will all be included in this group. There is evidence that board size and business performance are positively correlated. Larger boards, according to some theorists, have a lot of benefits Wu (2000) as more individuals can keep an eye on management decisions (Nicholson and Kiel, 2003), enabling better handling of the agency problem. Additionally, the argument in favor of larger boards has gained empirical support in some situations (Mak and Li, 2001). The argument for smaller boards Wu (2000) has been refuted by

other board size literature, which emphasizes the benefits of greater cohesiveness and productivity as well as their superior ability to oversee the firm as compared to larger groups. Smaller boards have been advocated in most of the literature on board size. These arguments are founded on the idea that smaller groups are more cohesive, productive, and capable of more efficiently monitoring the firm. Larger groups have issues such as social loafing and increased coordination costs, making them ineffective monitors. According to (Lipton and Lorsch, 1992) boards with 8 or 9 members are the most successful. It becomes difficult for all board members to present their thoughts and opinions in the short time allowed at board meetings, they claim, when the board is larger than this. Jensen (1993) agrees with this viewpoint, claiming that boards with more than 7 or 8 members are less productive and easier to control for the CEO.

When a board is too big, it's impossible to do business as a single unit. In such cases, the executive committee serves as the deliberative and decision-making body, while the remaining board members (the "full board") serve as a passive, rubber-stamping body that is rarely consulted before major decisions are made. Other committees, such as finance or governance, as well as the executive committee, may hold key seats on the main board.

If a board has too few members, one or two members may be able to intimidate the other board members. Intimidation does not have to be physical or emotional coercion; it can be intimidating, if one board member has specialized knowledge related to the organization's mission, or if she/he has more time than other board members available to review materials, visit with staff, stakeholders, donors, and volunteers, for example. A large contributor or the founder of a charity may be frightening on any board, but this is especially true when the board is tiny.

Members of big boards often feel their influence, as well as their ability to bring valuable ideas and use their leadership talents to assist the firm is restricted. Board members become disassociated from the group, especially while ratifying executive committee decisions and listening to staff reports. Even when board members attend meetings, this might lead to absenteeism or a lack of adequate preparation.

Small board members are frequently required to perform several roles, ranging from governance to fundraising to decorating the gym for a large event. Too many tasks that take too much time away from work, family, and leisure put both the board member and the firm in danger

of being fatigued. He or she will begin to withdraw from the board of directors and the organization.

Though the symptoms differ between big and small boards, the end outcome is the same: insufficient board size leads to disengagement among board members. Board members are claimed to be an organization's most underused resource in various areas, either because they are not meaningfully consulted or because their time and abilities are spent on secondary jobs and pursuits.

D. Big 4 Auditing Firms

The four largest accounting firms in the world, as measured by revenue, are known as the "Big Four." Deloitte, Ernst, and Young (EY), PricewaterhouseCoopers (PwC), and Klynveld Peat Marwick Goerdeler (KPMG) are the four firms involved. Deloitte, Price water house Coopers, KPMG, and Ernst and Young are among the top four accounting firms in the world, auditing more than 80% of US public firms. This word is applied to these accounting firms because of their enormous size, high reputation, and global reach. A career with the Big 4 allows you to gain unparalleled knowledge and skills. Early in your profession, you'll have the chance to take on a lot of responsibilities. You will become personally accountable for supervising personnel before your second full year with a Big 4 business, (Mande, V., and Son, M. ,2011).

E. Sector

A sector is an economic area in which firms engage in similar or related business activities, produce goods or provide services. Sectors are big groups of firms that share comparable commercial operations, such as natural resource exploitation and agriculture. It's critical to distinguish between business sectors since there are significant distinctions between a main sector firm and a service-oriented business. Within the same industry, there are also significant disparities.

A coal mine and a farm, for example, are both in the primary sector, yet they are extremely different. A firm that makes chocolate is not the same as one that makes car tires, although they are both in the same industry.

Different types of businesses make up different business sectors. Some are little, while others are enormous. Corporations, partnerships, and sole proprietorships are all options. Some work from home, while others work in dozens of plants around the country.

4.9 Methodology

Researchers use various approaches to identify risks since there is no single agreed-upon methodology for revealing hazards across organizations (Abraham and Cox, 2007). Before constructing an RD index, (Dey et al., 2018) recommend reviewing the firm's annual reports. To collect data on the aforementioned RD categories developed, this study proposes that word and sentence counts be expanded in the contents of any identified sampled firms' annual reports by focusing on the category of RMD based on GCC stock exchange requirements. The risk categories will be coded as "0" if no disclosure is made, and "1" if disclosure is made.

The total of all risks reported is then calculated by adding the scores. For instance, if a corporation exposes all ten groups, the value is 10, whereas if it discloses only four groups, the value is 4.

Risk Management Disclosure = Sum of risk management strategies disclosed for the disclosed risks. For each RM strategy disclosed a score of 1 is assigned and 0 if not. Afterward, scores are added up to produce the sum of all RM strategies disclosed.

4.10 Model Specification

$$\text{EPS} = \alpha + \beta_1 \text{RD} + \beta_2 \text{RMD} + (\beta_3 \text{RD} \times \text{RMD index}) + \beta_4 \text{Firm Size} + \beta_5 \text{Firm Age} + \beta_6 \text{BOD Size} + \beta_7 \text{Big 4} + \beta_8 \text{Sector}$$

Risk Disclosure $\times$ Risk Management Disclosure = A multiplicative term of Risk disclosure and Risk Management variables.

Firm Size = Natural logarithm of total assets.

Firm Age = Number of years since the firm's inception.

BOD Size = Total number of directors on the board.

Big 4 = A dummy variable that takes the value of 1 if the external auditor is among the big four audit firms, otherwise 0.

Sector = Industry dummies include nine dummies representing the ten sectors mentioned above.

4.11 Analysis and Presentation of Data

The data was investigated using descriptive statistics in SPSS v26 software and R-software v4.1.3, including analysis of difference of means and correlation, frequencies, and summary statistics. Multiple regression analysis was used to examine the impact on EPS in GCC listed firms.

Chapter Five

The Statistical Analyses and the Empirical Results

5.1 Introduction

This chapter examines and discusses the research findings based on 80 firm-year observations from 735 listed firms in the GCC. Data were analyzed using SPSS v26 software to obtain descriptive statistics and multiple linear regression using the HC03 Robust Standard Errors method, while data were analyzed using R-software v4.1.3 to obtain multiple regression using the bootstrapping technique (using the “boot” package). Noted that the term "package" in R-software refers to a specific capability that may be added to it by downloading from R servers. Pearson's r (or Pearson's correlation) was used to evaluate the linear relationship between each pair of the study variables, while multiple regression was used to see the effect of RD, RMD and their interaction on EPS, while controlling for firm size, FA, BOD Size, Big 4, and Sector (fractioned into 9 dummy variables, with industrial sector being the reference category). The rationale for using these two approaches to regression will be discussed in this report. The regression models that were analysed are:

Model1: $EPS = a + b1 \text{ RD} + b2 \text{ FA} + b3 \text{ BS} + b4 \text{ Big 4} + b5 \text{ sector1} + b6 \text{ sector2} + b7 \text{ sector3} + b8 \text{ sector4} + b9 \text{ sector5} + b10 \text{ sector6} + b11 \text{ sector7} + b12 \text{ sector8} + b13 \text{ sector9}$

Model2: $EPS = a + b1 \text{ RMD} + b2 \text{ FA} + b3 \text{ BS} + b4 \text{ Big 4} + b5 \text{ sector1} + b6 \text{ sector2} + b7 \text{ sector3} + b8 \text{ sector4} + b9 \text{ sector5} + b10 \text{ sector6} + b11 \text{ sector7} + b12 \text{ sector8} + b13 \text{ sector9}$

Model3: $EPS = a + b1 \text{ RD} + b2 \text{ RMD} + b3 \text{ FA} + b4 \text{ BS} + b5 \text{ Big 4} + b6 \text{ sector1} + b7 \text{ sector2} + b8 \text{ sector3} + b9 \text{ sector4} + b10 \text{ sector5} + b11 \text{ sector6} + b12 \text{ sector7} + b13 \text{ sector8} + b14 \text{ sector9}$

Model4: $EPS = a + b1 \text{ RD} + b2 \text{ RMD} + b3 \text{ RD} \times \text{RMD} + b4 \text{ FA} + b5 \text{ BS} + b6 \text{ Big 4} + b7 \text{ sector1} + b8 \text{ sector2} + b9 \text{ sector3} + b10 \text{ sector4} + b11 \text{ sector5} + b12 \text{ sector6} + b13 \text{ sector7} + b14 \text{ sector8} + b15 \text{ sector9}$

A mix of frequency distribution and point statistics (like mean, standard deviation (SD), minimum, and maximum) were used.

There are several ways of calculating correlation coefficients, depending on the types of variables being correlated. In our context, the correlated variables are continuous (i.e., numerical; opposite of categorical like sector, country of origin, etc.) or binary (a special case of categorical variables that has only 2 categories, such as Big 4), and therefore, we will use the Pearson's correlation coefficient (or Pearson's r , or just r , or sometimes only called correlation).

The magnitude of the correlation coefficient ranges from 0 to 1, where 0 indicates no correlation and 1 indicates a very strong correlation. As a rule of thumb, when the magnitude of r is below 0.3, the relationship is weak, and when it ranges between 0.3 and 0.5, the relationship is moderate, while any r higher than 0.5 indicates a strong relationship. If a minus sign precedes the correlation coefficient, it indicates a negative correlation. Negative means that as one variable increases, the other decreases, or vice versa. Otherwise, if the value is positive, it indicates a positive correlation, which means that as one variable increases, the other also increases (or as one decreases, the other decreases).

However, before commenting on the strength of a correlation, the statistical significance of the calculated value should be tested. The statistical test produces an indicator of significance called the p -value. For a statistic to be significant, the p -value should be very small (in this analysis, $p < .05$ indicates a significant result). So, when a correlation is found statistically significant (i.e., p -value $< .05$), it can be evaluated for strength. The word "significant" means that the correlation did not happen by chance (random), due to the sampling process (i.e., taking a limited number of people from a larger population), but rather, it indicates a true/real relationship.

5.2 Descriptive Statistics of the Main Study Variables

From Table 5.1, it can be seen that EPS in the sample ranges between -1.24 (indicating a losing firm), and 2.66. The average EPS is 0.19, and firms differ in EPS, on average, by 0.38 (i.e., $SD = 0.38$). RD ranges between 4 and 9, with an average of around 7 (SD is around 1). RMD was in the same range too but with an average of around 6. The natural logarithm of the firm sizes (in dollars) ranges between 16.66 and 25.59, with an average of 20.86 ($SD = 1.76$). Firm age (years) is in the range 1–138, with an average of around 33 years (SD is around 20). Finally, BOD size is in the range 5–14, with an average of around 8 individuals ($SD = 2$).

Table 5.1: Descriptive Statistics for the Main Study Variables

Variable	M ± SD	Min – Max
EPS	0.19 ± 0.38	-1.24 ± 2.66
RD	6.91 ± 0.93	4 ± 9
RMD	6.27 ± 0.79	4 ± 9
Firm Size	20.86 ± 1.76	16.66 - 25.59
Firm Age	32.7 ± 19.76	1 – 138
BOD Size	8.46 ± 2.01	5 – 14

A basic concept of how the main variables are distributed, if there are any outliers or anomalies that need to be accounted for, and how distinct variables may be related to one another using descriptive statistics. Finally, this knowledge can assist in creating more informed interpretations of the study findings and draw more accurate conclusions.

Further, Table 5.2 presents almost the same type of statistics as those in Table 5.1, but they are given for two categories of the sample (instead of the whole sample), namely, firms with $RD < \text{average}$ and firms with $RD > \text{average}$. We will refer to Table 5.2 when we discuss the correlation analysis, as it will be helpful in illustrating the correlated variables.

Table 5.2: Descriptive Statistics by RD Level

Variable		Statistics for Firms with:					
		RD < Average			RD > Average		
		N	M ± SD	Min - Max	N	M ± SD	Min - Max
EPS		268	0.2 ± 0.41	-1.24 - 2.66	532	0.18 ± 0.37	-0.34 - 2.66
Firm Size		268	20.78 ± 1.56	16.66 - 25.57	532	20.89 ± 1.86	17.11 - 25.59
Firm Age		268	28.32 ± 17.88	1 - 67	532	34.9 ± 20.3	4 - 138
BOD Size		268	7.98 ± 1.95	5 - 12	532	8.7 ± 2.01	5 - 14
Big 4	Yes	226			441		
	No	42			91		

As indicated in Table 5.2, firms were divided into two groups: those with above-average risk disclosure and those with below-average risk disclosure. At the 0.05 level, the alternative hypothesis that the difference between the means of the two groups is higher than zero is

significant. This suggests that businesses that disclose more risks outperform those that reveal less risk in terms of profitability (i.e., EPS).

5.3 Correlation and Regression

5.3.1 The Correlation Matrix between the Study Variables

Each cell in Table 5.3 displays the correlation (or Pearson's r , or simply r) between two pairs of the primary research variables, along with the P-value. We can draw the following from the table (or matrix):

- EPS is significantly and negatively correlated with RD ($r = -.075$, $P < .05$), and this means that as RD increases, EPS decreases; from Table 5.2 (in the previous section), we may see that this correlation is slightly reflected, where firms with low-RD have an average EPS of 2, compared to 1.8 for firms with high-RD. EPS is also significantly and negatively correlated with RMD ($r = -.160$, $P < .001$), and this gives the same indication as the correlation between EPS and RD does. However, EPS is significantly and positively correlated with FA ($r = 0.086$, $P < .05$), which indicates that as FA increases, EPS increases. On the other hand, EPS is insignificantly correlated with firm size, BOD size, and Big 4 (the 3 P-values are $> .05$). Just note that the correlation between EPS and firm size is very highly insignificant (P-value is $.797$, which is very large); for this reason, firm size will not be included in the regression analysis, as it could somewhat distort the results.
- RD is significantly (i.e., $P\text{-value} < .05$) and positively correlated with RMD, Firm Size, FA and BOD Size (r is 0.65 , 0.108 , 0.086 and 0.158 respectively), while significantly and negatively correlated with EPS (as we mentioned earlier). RD is just insignificantly correlated with Big 4 ($r = -.005$, $P > .05$). The significant correlation of RD with Firm Size, FA, and BOD size is reflected in Table 5.2; average firm size is 20.78 for low-RD firms and 20.89 for high-RD firms; average FA is 28.32 for low-RD firms and 34.9 for high-RD firms; average BOD Size is 7.98 for low-RD firms and 8.7 for high-RD firms (we may notice that the average of these 3 variables is higher within high-RD firms, which reflects the positive relationship between them and RD).
- RMD has similar correlations as those concerned with RD, except that RMD is not significantly correlated with Firm Size ($r = .064$, $P > .05$).

- Let's now discuss the correlations between the control variables:
- Firm Size is significantly and negatively correlated with FA ($r = -.185$, $P < .001$); as FA increases, Firm Size decreases. On the other hand, Firm Size is significantly and positively correlated with BOD Size ($r = .233$, $P < .001$) and Big 4 ($r = .224$, $P < .001$); as BOD Size increases or when the firm is a Big 4, Firm Size increases.
- FA, BOD, Size and Big 4 are insignificantly correlated with each other (the P-value for the correlation of each pair of them is $> .05$).
- We may generally conclude that most of the insignificant correlations in the table are above 0.1 (few are just slightly below 0.1), while all of the insignificant correlations are below 0.1 and closer to zero than those significant ones (actually, many of them are almost zero, e.g., the correlation between Firm Size and EPS, which equals -0.009). This is actually logical and reflects what we just found in the points above since the insignificance of a correlation indicates that we don't have evidence that the correlation is non-zero (i.e., a number that really exists), and therefore, they are usually considered zero (no relationship).
- Among all of the significant correlations shown in the table, the one between RD and RMD is the strongest ($r = 0.65$, compared to less than 0.3 for other significant correlations).

As shown in Table 5.3, businesses with more risk disclosure have younger total assets than firms with lower risk disclosure, which is consistent with the findings of Jafari et al. (2011). Both have the same average number of directors on their boards of directors. In terms of audit quality, it was discovered that businesses with above-average risk disclosure have more clients with the big four audit firms as their initial auditors than their rivals. The board of directors and the external auditor, literally, play an essential part in the process of accounting disclosure of the firm's risks.

Table 5.3: Correlation Matrix

	EPS	RD	RMD	Firm Size	Firm Age	BOD Size	Big 4
EPS	1.000						
RD	-0.075* (0.035)	1.000					
RMD	-0.160** (< 0.001)	0.65** (< 0.001)	1.000				
Firm Size	-0.009 (0.797)	0.108** (0.002)	0.064 (0.072)	1.000			
Firm Age	0.086* (0.014)	0.086* (0.016)	0.115** (0.001)	-0.185** (< 0.001)	1.000		
BOD Size	-0.055 (0.118)	0.158** (< 0.001)	0.168** (< 0.001)	0.233** (< 0.001)	0.003 (0.942)	1.000	
Big 4	0.057 (0.107)	-0.005 (0.881)	-0.004 (0.911)	0.224** (< 0.001)	-0.036 (0.310)	0.058 (0.102)	1.000

* Significant (P-value $< .05$)

** Significant (P-value $< .01$)

Each cell in Table 5.3 shows the correlation (or Pearson's r , or simply r) between two pairs of the main study variables, accompanied by its P-value in the bracket. Looking at the table (or matrix), we may conclude the following:

- EPS is significantly and negatively correlated with RD ($r = -.075$, $P < .05$), and this means that as RD increases, EPS decreases; from Table 5.3 (in the previous section), we may see that this correlation is slightly reflected, where firms with low-RD have an average EPS of 2, compared to 1.8 for firms with high RD. EPS is also significantly and negatively correlated with RMD ($r = -.160$, $P < .001$), and this gives same indication as the correlation between EPS and RD does. However, EPS is significantly and positively correlated with firm age ($r = 0.086$, $P < .05$), which indicates that as firm age increases, EPS increases. On the other hand, EPS is insignificantly correlated with firm size, BOD size, and Big4 (the 3

P-values are $> .05$). Just note that the correlation between EPS and firm size is very highly insignificant (P-value is .797, which is very large); **for this reason, firm age will not be included in the regression analysis, as it could somewhat distort the results.**

- While past studies, such as Chen and Jaggi (2000); Hossain et al (1994), show that audit firm size may have an influence on management's disclosure policies, we do not control for audit firm size/reputation because the "Big 4" audit about 95% of the sample.
- RD is significantly (i.e., P-value $< .05$) and positively correlated with RMD, firm size, firm age and BOD size (r is 0.65, 0.108, 0.086 and 0.158 respectively), while significantly and negatively correlated with EPS (as we mentioned earlier). RD is just insignificantly correlated with Big4 ($r = -.004$, $P > .05$). The significant correlation of RD with firm size, firm age and BOD size is reflected in Table 3; average firm size is 20.78 for low-RD companies and 20.89 for high-RD companies; average firm age is 28.32 for low-RD companies and 34.9 for high-RD companies; average BOD size is 7.98 for low-RD companies and 8.7 for high-RD companies (we may notice that the average of these 3 variables is higher within high-RD companies, which reflects the positive relationship between them and RD).
- RMD has similar correlations as those concerned with RD, except that RMD is not significantly correlated with the firm size ($r = .064$, $P > .05$).
- Let's now discuss the correlations between the control variables:
 - Firm size is significantly and negatively correlated with firm age ($r = -.185$, $P < .001$); as firm age increases, firm size decreases. On the other hand, firm size is significantly and positively correlated with BOD size ($r = .233$, $P < .001$) and Big4 ($r = .224$, $P < .001$); as BOD size increases or when the firm is a Big4, firm size increases.
 - Firm age, BOD size, and Big4 are insignificantly correlated with each other (the P-value for the correlation of each pair of them is $> .05$).
- We may generally say that most of the insignificant correlations in the table are above 0.1 (few are just slightly below 0.1), while all of the insignificant correlations are below 0.1 and closer to zero than those significant ones (actually, many of them are almost zero, e.g., the correlation between firm size and EPS, which equals -0.009). This is actually logical and reflects what we just found in the points above, since the insignificance of a correlation

indicates that we don't have evidence that the correlation is non-zero (i.e., a number that really exists), and therefore, they are usually considered zero (no relationship).

- Among all of the significant correlations shown in the table, the one between RD and RMD is the strongest ($r = 0.65$, compared to less than 0.3 for other significant correlations).

5.3.2 Multiple Regression

A. Verifying Regression Assumptions

Regression assumptions are some conditions that should be satisfied in our data, in order to make the results of the regression analysis more generalizable. Oliveira et al. (2011) examined the relationship between risk disclosure and corporate-specific factors in annual reports from a sample of Portuguese enterprises. They measured the amount of risk disclosure using content analysis. They discovered that firm size and leverage were positively linked with risk disclosure using multivariate regression analysis.

The main four assumptions discussed and checked are:

- **No multicollinearity:** this assumption means that each of the Independent Variable (IV) is not considerably associated / correlated with other IV's. Variance Inflation Factor (VIF) is a statistic that's measured for each IV and gives an idea of how this IV is associated/correlated with other effects IV. If this statistic is not > 10 , then the IV is not much related to other IV's. From the table above, we may see that for Model 1 to 3, all VIF's are small (actually < 2), so, the "no multicollinearity" assumption is satisfied for these 3 models. However, for Model 4 (a), the initial calculations show very large VIF's (for RD it's 44, for RMD it's 41 and for RD x RMD it's 135). This is actually caused by the inclusion of RD x RMD in Model4, and naturally, RD x RMD is very highly correlated with both RD and RMD, which is the reason why the VIF's have gone up. The solution for this problem is to standardize RD and RMD, and then calculate the new RD x RMD, and finally add all the 3 terms into Model4. This is done in Model4 (b), and it resulted in small VIF's (all < 2). So in throughout the analysis of this study, when Model4 is mentioned, we actually mean Model 4(b). Anyway, the assumption of "no multicollinearity" is satisfied. It should be noted that control variables (Firm Size/FA/BOD and whether it's Big 4) are included in all the 4 models but their VIF statistics were not shown (hidden) for two reasons. The first reason is that control variables are not the main variables of the study, and they are inserted just to adjust the

regression statistics of the main variables (making them more realistic), and therefore, any problem with their VIF isn't a real concern. The second reason is to reduce the table size, especially since in all 4 models, their VIF's are < 10 (refer to Appendix 1). Variance inflation factors were estimated to prove the lack of a multi-collinearity issue. The greatest observed variance inflation index (VIF) is 2.02, which is significantly below the value of 10 that would indicate multi-collinearity Anderson, et.l (2010).

- **Normality:** as we said earlier, in this analysis, we build an equation that predicts EPS. This prediction could have some inaccuracies (errors). If we try this equation on all our firms and record the errors committed by the equation, we can then know if they are normally distributed or not. Normal distribution for errors takes place when most of the errors revolve around 0, while some are considerably higher or lower than 0. If this is not the case, then the normality assumption is violated. For this purpose, errors are tested using "The Shapiro-Wilk Test" which produces a P-value. In all the 4 models, the P-value is $< .001$, so we may conclude that the errors are significantly away from normality (from being normally distributed); assumption of normality is violated.
- **Homogeneity of variance (or Homoskedasticity):** this assumption is related to errors too. It assumes that the degree of error variance (how errors vary from each other: slightly, moderately, or highly) is stable across the various levels of the predictors. For example: if the error variance is low among firms with low-RD, it should be also low among firms with high-RD (and if it's moderate among firms with low-RD, it should also be moderate among firms with high-RD), and so on. In this analysis, since the P-value of testing homogeneity of variance (see White's test in the table 5.5) is $< .001$ in all the 4 models, then error variances are significantly different across the various levels of independent variables (like RD, RMD, etc.); assumption is violated.
- **No outlier:** each firm in a particular year having a set of values (of the study variables, EPS, RD, RMD, FA, etc.) that is very different from those in other firms generally, is subject to being an outlier case; such a firm might have one or more strange values that could harm the analysis and make it misleading. Cook's distance is a measure to diagnose an outlier case, and it's computed for each firm. If it's > 1 , then this firm (or case) is an outlier. In Model 1, Cook's distance calculated for each firm did not exceed 1 (0.046); in Model 2, it did not exceed 1 (0.054); in Model 3, it did not exceed 1 (0.055); in Model 4. It did not exceed 1 (0.097). So, in all 4 models are below 1 for all firms, and thus the assumption is satisfied (no outlier).

Table 5.4: Regression Assumptions

Model #	Assumption Statistics	
Model 1	VIF per main IV	For RD: 1.161
	Max Cook's Distance	0.046
	P-value of Shapiro Wilk test	< 0.001
	P-value of Breusch-Pagan test	< 0.001
Model 2	VIF per main IV	For RMD: 1.102
	Max Cook's Distance	0.054
	P-value of Shapiro Wilk test	< 0.001
	P-value of Breusch-Pagan test	< 0.001
Model 3	VIF per main IV	For RD: 1.867 For RMD: 1.773
	Max Cook's Distance	0.055
	P-value of Shapiro Wilk test	< 0.001
	P-value of Breusch-Pagan test	< 0.001
Model 4 (a)**	VIF per main IV	For RD: 44.270 For RMD: 41.489 For RD x RMD: 134.733
	Max Cook's Distance	0.097
	P-value of Shapiro Wilk test	< 0.001
	P-value of Breusch-Pagan test	< 0.001
Model 4 (b)**	VIF per main IV	For RD: 1.876 For RMD: 1.790 For RD x RMD: 1.138
	Max Cook's Distance	0.097
	P-value of Shapiro Wilk test	< 0.001
	P-value of Breusch-Pagan test	< 0.001

* Control variables were not listed since their multicollinearity statistics (VIF) isn't important (Paul Allison, 2012)

** Model 4 (a) contains the original data (values) of RD and RMD, while Model 4 (b) contains the standardized values of RD and RMD (i.e., converted into units of their SD. Example: if standardized RD of a firm = 3, this means that the RD of this firm is 3 times the SD--of all RD values of the firms).

Now, with the presence of two problems in our data (non-normality, and heterogeneity of variance), whatever results we get out of the regression analysis, we can't generalize them safely to a larger population of firms (i.e., the results simply describe the sample only). To overcome problem of non-normality, bootstrapping method can be used, while to overcome the problem of heterogeneity of variance (also called heteroskedasticity), the method of “regression with robust standard errors” is used (the latter is usually called regression with heteroskedasticity consistent

standard errors, or HC-SE, and it has different versions from 0 to 4; we specifically used version 3).

The problem with using these curing methods is that you can only use one of them (not both at the same time); you either cure the non-normality or the heteroskedasticity (in other words, you can run the regression analysis once with bootstrapping and once with the HC-SE method, but not both in one regression analysis). The good news is that these two problems are intertwined; if one is solved, the other is likely to follow (though not always). In R-software, there is a package (called “white strap”) that could lead us to whether using the bootstrapping would result in a homogeneous error variance or not (i.e., whether the White’s test result is insignificant or not). However, this package does not do any regression analysis using the bootstrapping, and its main aim is only to perform the White’s test using the bootstrapping method. We did this experiment for Model 1 only (without the sector dummy variables), since this package does not perform well when things go more complicated. Table 5.5 shows the White’s test P-value at a different number of replications. It can be seen that even using bootstrapping with a relatively small number of replicates (1000) results in a tangible P-value (0.005); although it indicates that error variances are significantly heterogeneous, it’s still an improvement over the ordinary White’s test results given previously in Table 5.5 (where the P-value was $< .001$ in all models). If we keep trying to increase the number of replicates in bootstrapping, the P-value gradually grows until it becomes $> .05$ (at replicates of 9000 or higher); error variances are insignificantly heterogeneous (i.e., they are homogeneous, and thus the assumption of homoskedasticity is satisfied). This experiment tells us that running regression using the bootstrapping technique with a high number of replications would probably solve the heteroskedasticity problem. Thus, we would rely much on the bootstrapping technique in regression, while still reporting the “regression with HC-SE method.”

Table 5.5: Results of White's Test Using Bootstrapping

Number of Replications in Bootstrapping	P-value of White's Test
1000	0.005
2000	0.016
3000	0.026
4000	0.027
5000	0.036
6000	0.040
7000	0.043
8000	0.049
9000	0.066
10000	0.065

B. Regression Results

Table 5.6 shows the regression statistics. We will first explain and summarize the statistics regarding Model 2 (under the bootstrapping method), so that the results for other models become easier to understand.

Model 2:

- The regression model (represented by the linear equation: $EPS = a + b_1 RMD + b_2 FA + b_3 BS + b_4 Big\ 4 + b_5 sector1 + b_6 sector2 + b_7 sector3 + b_8 sector4 + b_9 sector5 + b_{10} sector6 + b_{11} sector7 + b_{12} sector8 + b_{13} sector9$) is statistically significant ($F_{13,786} = 8.855$; $P < .001$); $P < .001$);
- This means that the set of IVs (RD and the control variables) significantly predict EPS; or, in other words, they significantly explain EPS (degree of explanation is 15%; this is indicated by the R^2 statistic). Note: The coefficients of the 9 sectors are not shown in the table for more simplicity, but readers may refer to Appendix 2 to get more details about them.
- The coefficients of the IVs in the linear equation are estimated to be: -0.080 (for RMD), 0.001 (for FA), -0.002 (for BOD Size), and 0.059 (for Big 4)—for coefficients of the sectors, refer to Appendix 2. By substituting the coefficients into the equation, it becomes: $EPS = 0.647 - 0.08 RMD + 0.001 FA - 0.002 BOS + 0.059 Big\ 4 + 0.812 sector1 + 0.108 sector2 - 0.142 sector3 +$

0.011 sector4 - 0.1 sector5 + 0.028 sector6 - 0.143 sector7 - 0.125 sector8 - 0.141 sector9 (note that the first coefficient, i.e., 0.64, is the estimated constant of the equation; see the table above). Only the coefficients of RMD and Big 4 are statistically significant (their corresponding p-values are $< .05$). This mathematically means that the coefficients are nonzero values (in other words, they exist in real). The significance of these coefficients implies that RMD and the Big 4 are significantly influencing EPS.

- The interpretation of the two significant coefficients (of RMD and Big 4) in the equation is as follows:

- The b-coefficient of RMD is -0.08, which means that other things being the same, as RMD increases by 1, EPS decreases by 0.08 (note: we said "decreases" because the coefficient is negative, otherwise, we would say "increases" in the case of the positive coefficient).

- The b-coefficient of Big 4 is 0.059, which means that other things being the same, when the auditing firm is a Big 4, this increases the EPS by 0.059.

- Note that the constant of the equation (0.647) is statistically significant (P-value $< .001$), and it can be interpreted as follows: when the effect of all variables in the equation is absent (all set to 0), the expected EPS is 0.647.

- So finally, in Model 2 (when only RMD is assumed to be the main effect on EPS), RMD is found to negatively affect EPS. For the control variables, Big 4 is found to positively affect EPS (some of the sectors either negatively or positively affect EPS too; refer to Appendix 2).

Model 1, Model 3 and Model 4:

- In Model 1 (when only RD is assumed to be the main effect on EPS), RD is not found to significantly affect EPS (P-value is 0.131, which is $> .05$). Again, among the control variables, Big 4 was found to positively affect EPS (P-value is 0.040, which is $< .05$), while some of the sectors either negatively or positively affect EPS too; refer to Appendix 2.

- In Model 3 (when both RD and RMD are assumed to be the main effects on EPS), RD is found to insignificantly affect EPS (P-value is 0.125, which is $> .05$), while RMD is found to significantly affect EPS (P-value is $< .001$). The coefficient of RMD in Model 3 is -0.102, which means that other things are the same, as RMD increases by 1, EPS decreases by 0.102. Among the

control variables, Big 4 is found to positively affect EPS (P-value is 0.037, which is $< .05$), while some of the sectors either negatively or positively affect EPS too; refer to Appendix 2.

- In Model 4 (when RD, RMD, and RDxRMD are assumed to be the main effects on EPS), RD and RDxRMD are found to insignificantly affect EPS (P-values are 0.107 and 0.344 respectively; both $> .05$), while RMD is found to significantly affect EPS (P-value is $< .001$). The coefficient of RMD in Model 4 is -0.082, which means that other things being the same, as RMD increases by an amount equal to its SD, EPS decreases by 0.082 (note: we did not say “when RMD increases by 1,” because we earlier said that in Model 4, RD and RMD were standardized, i.e., their values were converted into units of their SD’s). Among the control variables, Big 4 is found to positively affect EPS (P-value is 0.046, which is $< .05$), while some of the sectors either negatively or positively affect EPS too; refer to Appendix 2.

General Findings:

- In all four models, even if we move to the HC03-Robust SE method, results are very close to those found using bootstrapping (roughly the same), so there is no need to report them (it would be almost a repetition). This actually gives more confirmation for what we found using the bootstrapping method.
- In sum, RD wasn't having any significant influence on EPS in all three models (where it was inserted), while RMD was having a significant negative effect on EPS in all three models where it was inserted. In addition, there is no significant interaction between RD and RMD; this means that whether RMD is low or high, RD still has no effect on EPS (and vice versa: whether RD is low or high, RMD still has the same strength of effect on EPS).
- In all four models, Big 4 in addition to some sectors (refer to Appendix 2 and Appendix 3) were the only control variables that were significantly influencing EPS.
- In all the four models, the IV's (main IV's + control variables) explain only 13 to 15% of the EPS (this is indicated by the R^2 's shown at the bottom of the table). In future research, this can be enhanced by either adding more variables to the models or by increasing the accuracy of the measured variables (especially RD and RMD).

Table 5.6: Multiple Regression Statistics

IV	Coefficient (P-value-value) by Model†							
	Bootstrapping Method††				HC03-Robust SE Method			
	Model1	Model2	Model3	Model4†††	Model1	Model2	Model3	Model4†††
Constant	0.349** (0.007)	0.647** (< 0.001)	0.570** (< 0.001)	0.135 (0.101)	0.347** (0.008)	0.645** (< 0.001)	0.569** (< 0.001)	0.134 (0.104)
RD	-0.023 (0.131)		0.032 (0.125)	0.031 (0.107)	-0.023 (0.135)		0.032 (0.129)	0.031 (0.107)
RMD		-0.080** (< 0.001)	-0.102** (< 0.001)	-0.082** (< 0.001)		-0.080** (< 0.001)	-0.102** (< 0.001)	-0.082** (< 0.001)
RD x RMD				0.013 (0.344)				0.012 (0.360)
Firm age	0.001 (0.303)	0.001 (0.161)	0.001 (0.159)	0.001 (0.148)	0.001 (0.311)	0.001 (0.168)	0.001 (0.169)	0.001 (0.156)
BOD size	-0.006 (0.430)	-0.002 (0.782)	-0.002 (0.717)	-0.002 (0.814)	-0.005 (0.443)	-0.002 (0.802)	-0.002 (0.733)	-0.001 (0.834)
Big 4	0.058* (0.040)	0.059* (0.035)	0.058* (0.037)	0.056* (0.046)	0.058* (0.041)	0.059* (0.036)	0.058* (0.041)	0.056* (0.046)
Sector	††††	††††	††††	††††	††††	††††	††††	††††
Overall Model Fit Statistics: Model1: $F_{13,786} = 8.855$; P-value $< .001$; $R^2 = .128$; Adj. $R^2 = .113$ Model2: $F_{13,786} = 10.641$; P-value < 0.001 ; $R^2 = .150$; Adj $R^2 = .136$ Model3: $F_{14,785} = 10.117$; P-value < 0.001 ; $R^2 = .153$; Adj $R^2 = .138$ Model4: $F_{15,784} = 9.540$; P-value < 0.001 ; $R^2 = .154$; Adj $R^2 = .138$								

* Significant at .05

** Significant at .01

† Model1 contains only RD as main predictor; Model2 contains only RMD as main predictor; Model3 contains RD and RMD as main predictors; Model4 contains RD, RMD and their interaction (RD x RMD) as main predictors; all models are controlling for FA, BOD size Big 4 and sectors

†† Done with 10,000 replications

††† In Model4, RD and RMD were standardized, i.e., they are shown in units of their SD's (example: when a firm has a standardized RD of 3, this means that the RD is 3 times of the SD)

†††† Statistically, 9 sectors were included in the model as dummy variables (while excluding the industrial sector and making it a reference category)

Chapter Six

Conclusions

6.1 Introduction

Businesses must enhance their RD practices in a market with a rapidly expanding economy, like the GCC countries, where there is constant pressure from the government for them to do so in order to give market participants and potential investors a reasonable level of assurance that they will receive accurate information about the firm's performance. A firm's objectives can be reasonably assured of being met through effective risk management, which also aids the organization in reaching its financial goals. Effective risk management minimizes surprises that have an impact on the organization by continuously assessing and identifying risks. As a result of the sector's significance to the economy as a whole, disclosures are important for both the sector and its investors. This study looked at the influence of RMD on the relationship between RD and firm performance in 80 non-financial publicly traded firms in the GCC countries from 2012 to 2021.

6.2 Conclusions of the Study

By using two statistical models (i.e., Bootstrapping Method and the HC03-Robust SE Method), the study finds no evidence that risk disclosure and risk management disclosure matter concerning firm performance when they examined individually for a sample of GCC non-financial firms. Such findings indicate that the number of risks disclosed by the firm has no effect on the firm's performance; rather, the most important thing is to demonstrate to potential investors how such risks are effectively managed in order to maximize the value of its shareholders through the use of various RM strategies.

In conclusion, EPS was not significantly impacted by RD, however, it was significantly negatively impacted by RMD. This is because firms may incur significant costs and expenses in adopting and reporting risk management, which may reduce their performance. Additionally, there is no discernible interaction between RD and RMD, so regardless of how low or high RMD is, RD still has no impact on EPS (and vice versa, regardless of how low or strong RMD is, RD still has an impact on EPS). The only control variables that significantly affect EPS across all 4 models

are the Big 4 and a few sectors. Finally, regarding the hypotheses of the study, the following table 4.7 summarizes the results as follows:

Table 6.1: The results of testing the study's hypotheses

No	Hypotheses	Result
H 1	Risk disclosures have a positive impact on firm performance.	Rejected
H 2	Risk Management Disclosures have positive impact on firm performance.	Accepted , but found negatively to affect EPS
H 3	Risk management disclosure positively moderates the relationship between risk disclosure and firm performance.	Rejected

In a rapidly growing economy, such as the GCC countries, with continuous claims by official authorities for firms to improve their risk disclosure practices in order to provide reasonable assurance of supporting potential investors and market participants with reliable information about the firm's performance, companies must improve their risk disclosure practices. This study looked at the moderation effect of risk management disclosure on the relationship between risk disclosure and firm performance in 80 non-financial publicly listed companies in the GCC that were registered on the GCC Stock Exchanges with various factors over a 10-year period beginning in 2012. Pearson's r was used to evaluate the linear relationship between each pair of study variables, SPSS v26 software was used to obtain descriptive statistics and multiple linear regression using the HC03 Robust Standard Errors method, and R-software v4.1.3 was used to obtain multiple regression using the bootstrapping technique (using the "boot" package). When RD and RMD are examined separately, the study finds little evidence that they affect firm performance. While RMD had a considerable negative impact on EPS in all three models.

6.3 Implications of the Study

The findings of this research will assist GCC regulatory agencies in considering the relevance of providing RM for each risk type revealed in order to create a clear picture of firms' risks, allowing financial statement users to judge the extent of risk and its influence on performance.

Such findings pave the way for future research to look into the moderation effect of other associated variables in order to have a clear picture of the relationship between RD, RM, and firm performance.

6.4 Limitations of the Research

- A firm's performance is influenced by a number of elements, including organizational aspects like size, history, and structure; environmental aspects like socioeconomic background and technical framework; and human aspects like individual qualities, motivation, and abilities. Most of the factors are subjective and cannot be measured.
- The current study excluded banks and financial institutions from the study sample. For this reason, the results cannot be generalized to all GCC- listed firms.
- Additional elements that may affect the firm include the qualities of CEOs. Motivation is seen as one of the most essential aspects, with compensation and bonuses serving as primary determinants. These are qualitative factors which cannot be extracted from financial reports.
- The study did not look at how well or how intensely the item was disclosed; it merely looked at its presence.
- The multiple regression model created with the intention of examining such factors excludes qualitative elements that may have an impact on EPS but cannot be retrieved from the financial reports of the research sample.
- This analysis showed that the annual reports of these firms contain more historical data than forward-looking data.

6.5 Recommendations for Future Research

Future research can look into firm performance while keeping the restrictions described above in mind. Future research can be applied to a broader market, including the Middle East and North Africa (MENA) region. Future research can employ the control variables used in this study as independent variables to determine their effects on firm's performance. Furthermore, future research may look into the effect of managerial compensation on firm performance to gain insight into management motivations. Furthermore, future research should include more variables relating to the firm's characteristics and success. Future research should take into account studying both the amount and intensity of disclosure over time, as well as making an effort to thoroughly investigate factors that affect risk disclosure levels.

In this regard, the **guidelines** require the boards of the firms to:

1. Ensure that there are risk management policies in place;
2. Ensure that the management is implementing an adequate risk management system to identify, measure, monitor, control, and report all risks associated with the institution, and that the risk management system is supported by a system of sound internal controls, and
3. Regularly verify that the institution has appropriate processes that identify, measure, monitor, and control risks.

Increased risk disclosure was acknowledged as one of the important regulatory needs by Homolle (2009). The analysis of the policies revealed how much weight regulators give to risk disclosure. In order to comply with the regulations and manage risk, non-financial firms are required to provide certain information in their annual reports.

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Website References

Source	Website
ADX (Abu Dhabi Securities Exchange)	https://www.adx.ae/English/Pages/default.aspx
Argaam website	https://www.argaam.com/
Bahrain Bourse	https://www.bahrainbourse.com/
Capital Markets Authority	https://cma.org.sa/en/Pages/default.aspx
Central Bank of Bahrain	https://www.cbb.gov.bh/
DFM (Dubai Financial Market)	https://www.dfm.ae/
Doha Security Market (DSM)	https://www.qe.com.qa/
Kuwaiti stock exchange (Bourse Kuwait)	https://www.boursakuwait.com.kw/
Mubasher Trade	https://global.mubashertrade.com/
Muscat Securities Market	https://www.msm.gov.om/
NASDAQ Dubai	https://www.nasdaqdubai.com/
The Saudi Stock Exchange (Tadawul)	https://www.tadawul.com.sa/wps/portal/tadawul/home/

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Appendix 1: Multicollinearity Statistics

IV	VIF per Model				
	Model1	Model2	Model3	Model4 (a)	Model4 (b)
RD	1.161		1.867	44.270	1.876
RMD		1.102	1.773	41.489	1.790
RD x RMD				134.733	1.138
Firm Age	1.211	1.220	1.220	1.225	1.225
BOD Size	1.312	1.319	1.322	1.337	1.337
Big 4	1.123	1.122	1.123	1.124	1.124
SEC_AES	1.092	1.087	1.096	1.099	1.099
SEC_BM	1.355	1.353	1.356	1.357	1.357
SEC_CC	1.193	1.191	1.193	1.194	1.194
SEC_NC	1.444	1.429	1.444	1.445	1.445
SEC_EN	1.279	1.279	1.279	1.280	1.280
SEC_MU	1.130	1.095	1.132	1.202	1.202
SEC_RE	1.391	1.372	1.394	1.399	1.399
SEC_TEC	1.375	1.375	1.377	1.386	1.386
SEC_UT	1.242	1.227	1.243	1.277	1.277

Appendix 2: Regression Output Using the Bootstrapping Method

Model 1:

Variable	Original Coefficient	Bias	Bootstrap Coefficient	SE	P-value
Constant	0.347	0.002	0.349	0.129	0.007
RD	-0.023	0.000	-0.023	0.015	0.131
Firm age	0.001	0.000	0.001	0.001	0.303
BOD size	-0.005	0.000	-0.006	0.007	0.430
Big 4	0.058	0.000	0.058	0.028	0.040

Sector (AES)	0.797	0.000	0.797	0.119	0.000
Sector (BM)	0.106	0.000	0.105	0.065	0.104
Sector (CC)	-0.141	0.000	-0.141	0.036	0.000
Sector (NC)	0.015	-0.001	0.014	0.059	0.809
Sector (EN)	-0.103	0.000	-0.102	0.031	0.001
Sector (MU)	0.089	0.000	0.089	0.045	0.049
Sector (RE)	-0.144	0.000	-0.144	0.028	0.000
Sector (TEC)	-0.136	0.001	-0.136	0.029	0.000
Sector (UT)	-0.139	0.000	-0.139	0.037	0.000

Model 2:

Variable	Original Coefficient	Bias	Bootstrap Coefficient	SE	P-value
Constant	0.645	0.001	0.647	0.148	0.000
RMD	-0.080	0.000	-0.080	0.021	0.000
Firm age	0.001	0.000	0.001	0.001	0.161
BOD size	-0.002	0.000	-0.002	0.007	0.782
Big 4	0.059	0.000	0.059	0.028	0.035
Sector (AES)	0.814	-0.002	0.812	0.117	0.000
Sector (BM)	0.108	0.000	0.108	0.064	0.090
Sector (CC)	-0.142	-0.001	-0.142	0.036	0.000
Sector (NC)	0.012	0.000	0.011	0.058	0.848
Sector (EN)	-0.099	0.000	-0.100	0.031	0.001
Sector (MU)	0.028	0.000	0.028	0.047	0.543
Sector (RE)	-0.143	0.000	-0.143	0.028	0.000
Sector (TEC)	-0.125	0.000	-0.125	0.028	0.000

Sector (UT)	-0.141	0.000	-0.141	0.038	0.000
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Model 3:

Variable	Original Coefficient	Bias	Bootstrap Coefficient	SE	P-value
Constant	0.569	0.000	0.570	0.150	0.000
RD	0.032	0.000	0.032	0.021	0.125
RMD	-0.102	0.000	-0.102	0.029	0.000
Firm age	0.001	0.000	0.001	0.001	0.159
BOD size	-0.002	0.000	-0.002	0.007	0.717
Big 4	0.058	0.001	0.058	0.028	0.037
Sector (AES)	0.831	0.000	0.832	0.113	0.000
Sector (BM)	0.113	0.000	0.112	0.064	0.079
Sector (CC)	-0.138	0.000	-0.137	0.036	0.000
Sector (NC)	0.019	0.000	0.019	0.058	0.750
Sector (EN)	-0.100	0.000	-0.099	0.031	0.002
Sector (MU)	0.066	0.000	0.066	0.046	0.151
Sector (RE)	-0.133	0.000	-0.133	0.028	0.000
Sector (TEC)	-0.128	0.001	-0.128	0.028	0.000
Sector (UT)	-0.129	0.000	-0.128	0.037	0.001

Model 4:

Variable	Original Coefficient	Bias	Bootstrap Coefficient	SE	P-value
Constant	0.134	0.001	0.135	0.082	0.101
RD (standardized)	0.031	0.000	0.031	0.019	0.107
RMD (standardized)	-0.082	0.000	-0.082	0.023	0.000
RD (std) x RMD (std)	0.012	0.000	0.013	0.013	0.344
Firm age	0.001	0.000	0.001	0.001	0.148
BOD size	-0.001	0.000	-0.002	0.007	0.814

Big 4	0.056	0.000	0.056	0.028	0.046
Sector (AES)	0.840	-0.002	0.838	0.113	0.000
Sector (BM)	0.111	0.000	0.111	0.063	0.078
Sector (CC)	-0.136	0.000	-0.136	0.036	0.000
Sector (NC)	0.017	-0.001	0.017	0.058	0.774
Sector (EN)	-0.101	0.000	-0.101	0.031	0.001
Sector (MU)	0.031	-0.001	0.030	0.071	0.673
Sector (RE)	-0.130	0.000	-0.130	0.028	0.000
Sector (TEC)	-0.133	0.001	-0.132	0.028	0.000
Sector (UT)	-0.141	0.002	-0.139	0.041	0.001

Appendix 3: Regression Output HC03 Robust Standard Errors

Model 1:

Tests of Between-Subjects Effects					
Dependent Variable: EPS					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	14.810 ^a	13	1.139	8.855	.000
Intercept	1.093	1	1.093	8.496	.004
RD	.312	1	.312	2.423	.120
FirmAge	.218	1	.218	1.698	.193
BODSize	.071	1	.071	.552	.458
Big 4	.331	1	.331	2.573	.109
SEC_AES	5.751	1	5.751	44.707	.000
SEC_BM	.658	1	.658	5.111	.024
SEC_CC	.783	1	.783	6.087	.014
SEC_NC	.017	1	.017	.135	.714
SEC_EN	.592	1	.592	4.598	.032
SEC_MU	.069	1	.069	.540	.463
SEC_RE	1.416	1	1.416	11.011	.001
SEC_TEC	.861	1	.861	6.691	.010
SEC_UT	.594	1	.594	4.620	.032
Error	101.115	786	.129		
Total	144.523	800			

Corrected Total	115.925	799			
a. R Squared = .128 (Adjusted R Squared = .113)					

Parameter Estimates with Robust Standard Errors						
Dependent Variable: EPS						
Parameter	B	Robust Std. Error^a	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	.347	.130	2.664	.008	.091	.602
RD	-.023	.015	-1.497	.135	-.053	.007
Firm Age	.001	.001	1.015	.311	-.001	.003
BOD Size	-.005	.007	-.767	.443	-.019	.008
Big 4	.058	.028	2.047	.041	.002	.113
SEC_AES	.797	.125	6.359	.000	.551	1.043
SEC_BM	.106	.065	1.614	.107	-.023	.234
SEC_CC	-.141	.036	-3.891	.000	-.212	-.070
SEC_NC	.015	.060	.255	.799	-.102	.132
SEC_EN	-.103	.031	-3.281	.001	-.164	-.041
SEC_MU	.089	.045	1.974	.049	.000	.178
SEC_RE	-.144	.028	-5.107	.000	-.199	-.089
SEC_TEC	-.136	.028	-4.799	.000	-.192	-.080
SEC_UT	-.139	.037	-3.742	.000	-.212	-.066
a. HC3 method						

Model 2:

Tests of Between-Subjects Effects					
Dependent Variable: EPS					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	17.348 ^a	13	1.334	10.641	.000
Intercept	3.744	1	3.744	29.856	.000

RMD	2.850	1	2.850	22.728	.000
FirmAge	.385	1	.385	3.067	.080
BODSize	.008	1	.008	.061	.805
Big 4	.346	1	.346	2.756	.097
SEC_AES	6.013	1	6.013	47.948	.000
SEC_BM	.694	1	.694	5.530	.019
SEC_CC	.792	1	.792	6.312	.012
SEC_NC	.010	1	.010	.082	.775
SEC_EN	.556	1	.556	4.436	.036
SEC_MU	.007	1	.007	.058	.810
SEC_RE	1.409	1	1.409	11.236	.001
SEC_TEC	.727	1	.727	5.798	.016
SEC_UT	.616	1	.616	4.910	.027
Error	98.576	786	.125		
Total	144.523	800			
Corrected Total	115.925	799			
a. R Squared = .150 (Adjusted R Squared = .136)					

Parameter Estimates with Robust Standard Errors						
Dependent Variable: EPS						
Parameter	B	Robust Std. Error^a	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	.645	.151	4.268	.000	.349	.942
RMD	-.080	.022	-3.646	.000	-.122	-.037
Firm Age	.001	.001	1.381	.168	-.001	.003
BOD Size	-.002	.007	-.251	.802	-.016	.012
Big 4	.059	.028	2.104	.036	.004	.114
SEC_AES	.814	.121	6.736	.000	.577	1.051
SEC_BM	.108	.064	1.683	.093	-.018	.235
SEC_CC	-.142	.036	-3.918	.000	-.213	-.071
SEC_NC	.012	.059	.198	.843	-.104	.127
SEC_EN	-.099	.031	-3.186	.001	-.161	-.038
SEC_MU	.028	.047	.602	.548	-.064	.121
SEC_RE	-.143	.028	-5.108	.000	-.198	-.088

SEC_TE	-.125	.028	-4.522	.000	-.179	-.071
C						
SEC_UT	-.141	.038	-3.680	.000	-.216	-.066
UT						
a. HC3 method						

Model 3:

Tests of Between-Subjects Effects					
Dependent Variable: EPS					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	17.719 ^a	14	1.266	10.117	.000
Intercept	2.553	1	2.553	20.407	.000
RD	.371	1	.371	2.964	.086
RMD	2.910	1	2.910	23.258	.000
FirmAge	.383	1	.383	3.062	.081
BODSize	.014	1	.014	.110	.740
Big 4	.330	1	.330	2.637	.105
SEC_AES	6.231	1	6.231	49.810	.000
SEC_BM	.745	1	.745	5.959	.015
SEC_CC	.743	1	.743	5.938	.015
SEC_NC	.026	1	.026	.211	.646
SEC_EN	.562	1	.562	4.494	.034
SEC_MU	.038	1	.038	.302	.583
SEC_RE	1.213	1	1.213	9.692	.002
SEC_TEC	.763	1	.763	6.095	.014
SEC_UT	.505	1	.505	4.036	.045
Error	98.206	785	.125		
Total	144.523	800			
Corrected Total	115.925	799			
a. R Squared = .153 (Adjusted R Squared = .138)					

Parameter Estimates with Robust Standard Errors
Dependent Variable: EPS

Parameter	B	Robust Std. Error ^a	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	.569	.149	3.816	.000	.276	.862
RD	.032	.021	1.520	.129	-.009	.073
RMD	-.102	.029	-3.501	.000	-.159	-.045
Firm Age	.001	.001	1.378	.169	-.001	.003
BOD Size	-.002	.007	-.342	.733	-.016	.011
Big 4	.058	.028	2.046	.041	.002	.113
SEC_AES	.831	.118	7.038	.000	.600	1.063
SEC_BM	.113	.065	1.743	.082	-.014	.239
SEC_CC	-.138	.036	-3.828	.000	-.208	-.067
SEC_NC	.019	.059	.318	.751	-.097	.134
SEC_EN	-.100	.031	-3.201	.001	-.161	-.039
SEC_MU	.066	.046	1.416	.157	-.025	.157
SEC_RE	-.133	.028	-4.804	.000	-.188	-.079
SEC_TEC	-.128	.028	-4.580	.000	-.183	-.073
SEC_UT	-.129	.037	-3.510	.000	-.200	-.057
a. HC3 method						

Model 4:

Tests of Between-Subjects Effects					
Dependent Variable: EPS					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	17.894 ^a	15	1.193	9.540	.000
Intercept	.406	1	.406	3.246	.072
Z_RD	.405	1	.405	3.240	.072
Z_RMD	3.022	1	3.022	24.167	.000
Z_RD_by_RMD	.175	1	.175	1.396	.238
FirmAge	.414	1	.414	3.309	.069
BODSize	.005	1	.005	.043	.836
Big 4	.312	1	.312	2.498	.114
SEC_AES	6.332	1	6.332	50.638	.000
SEC_BM	.730	1	.730	5.838	.016

SEC_CC	.729	1	.729	5.829	.016
SEC_NC	.023	1	.023	.183	.669
SEC_EN	.570	1	.570	4.556	.033
SEC_MU	.008	1	.008	.062	.803
SEC_RE	1.154	1	1.154	9.232	.002
SEC_TEC	.818	1	.818	6.538	.011
SEC_UT	.591	1	.591	4.726	.030
Error	98.031	784	.125		
Total	144.523	800			
Corrected Total	115.925	799			
a. R Squared = .154 (Adjusted R Squared = .138)					

Parameter Estimates with Robust Standard Errors						
Dependent Variable: EPS						
Parameter	B	Robust Std. Error^a	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	.134	.082	1.629	.104	-.027	.296
Z_RD	.031	.019	1.615	.107	-.007	.068
Z_RMD	-.082	.023	-3.502	.000	-.128	-.036
Z_RD_by_RMD	.012	.013	.917	.360	-.014	.039
FirmAge	.001	.001	1.419	.156	.000	.003
BODSize	-.001	.007	-.210	.834	-.015	.012
Big 4	.056	.028	1.998	.046	.001	.112
SEC_AES	.840	.119	7.081	.000	.607	1.072
SEC_BM	.111	.064	1.732	.084	-.015	.238
SEC_CC	-.136	.036	-3.812	.000	-.206	-.066
SEC_NC	.017	.059	.295	.768	-.098	.133
SEC_EN	-.101	.031	-3.202	.001	-.162	-.039
SEC_MU	.031	.072	.426	.670	-.111	.172
SEC_RE	-.130	.028	-4.686	.000	-.185	-.076
SEC_TEC	-.133	.028	-4.780	.000	-.188	-.078
SEC_UT	-.141	.041	-3.471	.001	-.221	-.061
a. HC3 method						

Appendix 4: List companies included in the sample

Company Name	Country	Type of Business
APM Terminals Bahrain BSC	Bahrain	Industrials
Zain Bahrain BSC	Bahrain	Technology
Nass Corporation BSC	Bahrain	Industrials
Trafco Group BSC	Bahrain	Consumer Non-Cyclicals
Bahrain Ship Repairing and Engineering Co BSC	Bahrain	Industrials
Bmmi BSC	Bahrain	Consumer Non-Cyclicals
Bahrain Telecommunications Company BSC	Bahrain	Technology
Bahrain Car Parks Company (Amakin) BSC	Bahrain	Industrials
Bahrain Duty Free Shop Complex BSC	Bahrain	Industrials
Aluminum Bahrain BSC	Bahrain	Basic Materials
Saudi Electricity Company SJSC	KSA	Utilities
Abdullah Al Othaim Markets CompanySJSC	KSA	Consumer Non-Cyclicals
Saudi Arabian Amiantit Company SJSC	KSA	Industrials
Dur Hospitality Company SJSC	KSA	Consumer Cyclicals
Saudi Airlines Catering Company SJSC	KSA	Industrials
Saudi Arabian Mining Company SJSC	KSA	Industrials
Dar Al Arkan Real Estate Development Company SJSC	KSA	Real Estate
Mobile Telecommunications Company Saudi Arabia SJSC	KSA	Technology
Saudi Kayan Petrochemical Company SJSC	KSA	Basic Materials
Almarai Company SJSC	KSA	Consumer Non-Cyclicals
Etihad Etisalat Company SJSC	KSA	Technology
Saudi Cement Company SJSC	KSA	Basic Materials
Savola Group Co	KSA	Consumer Non-Cyclicals
Saudi Basic Industries Corporation SJSC	KSA	Basic Materials
Boubyan Petrochemical Company KSCP	Kuwait	Basic Materials
Kuwait and Gulf Link Transport Company KPSC	Kuwait	Industrials
Kuwait Real Estate Company KPSC	Kuwait	Real Estate
Heavy Engineering Industries and Shipbuilding Company KSCP	Kuwait	Industrials
Al Soor Fuel Marketing Company KSCP	Kuwait	Energy
Humansoft Holding Co. KSCP	Kuwait	Academic and Educational Services
Senenergy Holding Company KSCP	Kuwait	Energy
Kuwait Cement Company KPSC	Kuwait	Basic Materials
Kuwait National Cinema Comapany KPSC	Kuwait	Consumer Cyclicals
Ajial Real Estate Entertainment Co KSCP	Kuwait	Real Estate
Independent Petroleum Group KSCP	Kuwait	Energy
Al-Enmaa Real Estate Company KSCP	Kuwait	Real Estate

Qurain Petrochemical Industries Company KSCP	Kuwait	Consumer Non-Cyclicals
Mabanee Company KPSC	Kuwait	Real Estate
Tamdeen Real Estate Co KPSC	Kuwait	Real Estate
Agility Public Warehousing Company KSCP	Kuwait	Industrials
Mobile Telecommunications Company KSCP	Kuwait	Technology
Phoenix Power Co SAOG	Oman	Utilities
Al Batinah Power Company SAOC	Oman	Utilities
Oman National Engineering and Investment Co SAOG	Oman	Industrials
Al Batinah Hotels Company SAOG	Oman	Consumer Cyclicals
Shell Oman Marketing Company SAOG	Oman	Energy
Oman Investment and Finance Co SAOG	Oman	Industrials
Packaging Co Ltd SAOG	Oman	Basic Materials
Omani Qatari Telecommunications Company SAOG	Oman	Consumer Non-Cyclicals
National Gas Company SAOG	Oman	Energy
Sembcorp Salalah Power and Water Company SAOG	Oman	Utilities
Qatar Electricity and Water Company QPSC	Qatar	Multiline Utilities
Zad Holding Company QPSC	Qatar	Consumer Non-Cyclicals
Al Meera Consumer Goods Company QPSC	Qatar	Consumer Non-Cyclicals
United Development Company QPSC	Qatar	Real Estate
Salam International Investment QPSC	Qatar	Consumer Non-Cyclicals
Qatar National Cement Company QPSC	Qatar	Basic Materials
Qatar Gas Transport Nakilat Co Ltd QPSC	Qatar	Energy
Gulf Warehousing Company QPSC	Qatar	Industrials
Qatar Navigation QPSC (Milaha)	Qatar	Industrials
Qatar Industrial Manufacturing Company QPSC	Qatar	Consumer Non-Cyclicals
Qatar Cinema and Film Distribution Co QPSC	Qatar	Consumer Cyclicals
Abu Dhabi Ship Building PJSC	UAE	Industrials
Agthia Group Pjsc	UAE	Consumer Non-Cyclicals
Aramex PJSC	UAE	Industrials
Damac Properties Dubai PJSC Co	UAE	Real Estate
Dana Gas PJSC	UAE	Energy
Depa Plc	UAE	Industrials
Deyaar Development PJSC	UAE	Real Estate
Emaar Properties PJSC	UAE	Real Estate
Emirates Integrated Telecommunications Company PJSC	UAE	Technology
Emirates Telecommunications Group Company PJSC	UAE	Technology
Gulf Navigation Holding PJSC	UAE	Industrials
National Central Cooling Co PJSC	UAE	Utilities
National Marine Dredging Company PJSC	UAE	Industrials

Orascom Construction PLC	UAE	Industrials
RAK Ceramics PJSC	UAE	Consumer Cyclical
RAK Properties PJSC	UAE	Consumer Cyclical
United Foods Co PSC	UAE	Consumer Non-Cyclical
Air Arabia PJSC	UAE	Industrials

خلاصة

تهدف هذه الدراسة إلى التحقيق في التأثير المعتدل للإفصاح عن إدارة المخاطر على العلاقة بين الإفصاح عن المخاطر وأداء الشركات لإضافتها إلى مجموعة الأدبيات المتزايدة حول الإفصاح عن إدارة المخاطر من خلال الحصول على أدلة جديدة من بيئة اقتصادية سريعة النمو في دول الخليج. تغطي هذه الدراسة 80 شركة غير مالية من دول مجلس التعاون الخليجي مسجلة في بورصة دول مجلس التعاون الخليجي مع عوامل مختلفة طوال فترة 10 سنوات تبدأ من 2012. تم جمع البيانات من موقع Thomson Reuters، والتقارير السنوية، والبيانات المالية الفردية للشركات. تم استخدام (Pearson r) أو ارتباط (Pearson) لتقييم العلاقة الخطية بين كل زوج من متغيرات الدراسة، بينما تم استخدام الانحدار المتعدد لمعرفة تأثير الإفصاح عن المخاطر والإفصاح عن إدارة المخاطر وتفاعلهما على ربحية السهم، مع التحكم في شركات التدقيق الأربعة الكبرى، حجم الشركة، وعمر الشركة وحجم مجلس الإدارة والقطاع (مقسم إلى 9 متغيرات وهمية، مع كون القطاع الصناعي هو الفئة المرجعية). تم استخدام برنامج SPSS v26 للحصول على إحصائيات وصفية وانحدار خطي متعدد باستخدام طريقة HC03 Robust Standard Errors، بينما تم استخدام

برنامج (R-Software v4.1.3) للحصول على انحدار متعدد باستخدام تقنية (Bootstrapping) باستخدام حزمة ("boot").

كشفت النتائج أن الإفصاح عن المخاطر ليس له تأثير كبير على ربحية السهم، ولكن الإفصاح عن إدارة المخاطر كان له تأثير سلبي كبير على ربحية السهم. علاوة على ذلك، لا يوجد تفاعل كبير بين الإفصاح عن المخاطر والإفصاح عن إدارة المخاطر؛ يشير هذا إلى أنه سواء كان الإفصاح عن إدارة المخاطر منخفضاً أو كبيراً، فإن الإفصاح عن المخاطر ليس له تأثير على ربحية السهم (والعكس صحيح: سواء كان الإفصاح عن المخاطر منخفضاً أو مرتفعاً، لا يزال الإفصاح عن إدارة المخاطر له نفس قوة التأثير على ربحية السهم). كان لشركات التدقيق الأربعة الكبرى وبعض القطاعات عوامل التحكم الوحيدة التي كان لها تأثير كبير على ربحية السهم. ستساعد نتائج هذا البحث الممارسين في إعادة تقييم التفاعلات بين أنشطتهم من أجل الكشف عن المخاطر والإفصاح عن إدارة المخاطر على أداء الشركة.

الكلمات الدالة:

الإفصاح عن المخاطر، الإفصاح عن إدارة المخاطر، أداء الشركات، دول الخليج.



جامعة البحرين
كلية إدارة أعمال
قسم المحاسبة

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أطروحة مقدمة في استيفاء جزئي لمتطلبات درجة الماجستير في المحاسبة

إعداد

الطالبة أنصاف يوسف علي

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إشراف

دكتور قاقن كوكرجا

أستاذ مشارك في قسم المحاسبة

جامعة البحرين

مملكة البحرين

مايو 2023م