



**THE ROLE OF ENTERPRISE RISK MANAGEMENT ON
DISCLOSURE TRANSPARENCY AND COST OF EQUITY
CAPITAL IN THE INTERNATIONAL FINANCIAL
REPORTING STANDARD PERIOD**

**A Thesis Submitted By
Bisan Almasri**

**For the Award of
Doctor of Philosophy**

Australia

(2020)

ABSTRACT

This thesis empirically investigates the role of the enterprise risk management system implementation level in capturing firm managerial incentives. This system plays an important role in understanding the association between international financial reporting standards and the capital market. Listed firms in the Australian market were used for the period 2000-2010 for this purpose, and the Australian market was chosen because it is considered to be a strong legally enforced capital market. Descriptive statistic tests were used to study the sample characteristics. In addition, panel data is analysed in two regression models to achieve the study goals by providing a reference to compare the use of international financial reporting standards (IFRS) and generally accepted accounting principles (GAAP) periods in Australia, as Australia adopted IFRS as of January 1st 2005, thus enabling an analysis of their effect on firm incentives and cost of equity capital. Finally, the researcher used the results of the term “IFRSA*ERMIL” in the two regression models, to capture the role of ERMIL on the economic consequences of IFRS adoption, through its indirect effect on firm incentives. The study results imply that IFRS adoption has a statistically significant negative effect on firm disclosures transparency _ with a positive effect on earning management_ when compared with GAAP adoption for the three models. Also, IFRS were found to have a statistically significant positive effect on cost of equity capital, which implies that the adoption of IFRS by Australian firms increases cost of equity capital for firm stock. Furthermore, implementing higher levels of ERM by Australian firms during the mandatory IFRS adoption period has no statistically incremental effect on the cost of equity capital, thus adopting higher level of ERM does not capture firm incentives in IFRS period. Together, implementing higher level of ERM by Australian firms in IFRS period, is not recognised by investors as a signal of more transparent disclosures nor does it encourage investors to use low discount rate to discount future cash flows, which as a result, does not have an effect on cost of equity capital. Consequently, these results suggest that the implementation of ERM by Australian firms does not reduce the contractual costs between investors and management, whilst adopting IFRS does. Future research may use other techniques and/or strategies other than ERM, to capture the firm incentives, and as a result, may have economic consequences.

CERTIFICATION OF THESIS

This Thesis is entirely the work of Bisan Khalil Mohammad Almasri except where otherwise acknowledged. The work is original and has not previously been submitted for any other award, except where acknowledged.

Principal Supervisor: Dr. Afzalur Rashid

Associate Supervisor: Dr. Gregory Jones

Student and supervisors' signatures of endorsement are held at the University.

ACKNOWLEDGEMENTS

First and foremost, thanks be to my Lord for showing me inner peace and for all my blessings. The writing of a thesis can be a lonely and isolating experience, yet it is obviously not possible without the personal and practical support of numerous people. Thus my sincere gratitude goes to my parents, my wife, my teachers, all my friends, my companions, and my supporters for their love, support, confidence in me and patience, over the last few years.

To my supervisors, Dr. Afzalur Rashid and Dr. Gregory Jones, I am pleased to thank you for the hand holding and close follow up to get this work completed. Your technical and editorial advice were essential to the completion of this thesis, and has taught me innumerable lessons and insights on the workings of academic research in general. They were always ready to offer advice, not only in our office meetings, but also whilst in break or on vacation. Also, I would like to thank all of the staff of the Accounting and Finance discipline, for their friendship and support.

I am grateful to my university (Applied Science University) and deeply appreciate its financial support. It would not have been possible to complete this work without it. Also, I wish to express my proudness of my university – USQ – which has supported me throughout my studying path by providing me with all materials, tips, guidance and instructions, which helped me and made a difference to my thesis.

At various times, I have received helpful discussions with Dr Eswaran Velayutham. His notes and help were valuable to me, and gave me direction for working on this thesis.

I extend my thanks to the thesis committee for enriching this work by their valuable notes, and their time for reading this thesis. I thank my colleagues in the department for their patience and sincere advice. Many others are in mind and heart, my brothers and sisters and their families. Also, I would like to thank Mr. Nicholas McDonald for his editorial service, and his efforts in proofreading my thesis.

Finally, I am grateful to my wife, who supported me at all stages of my studying, and she was with me throughout all the difficult stages.

DEDICATION

For my mother, taught me small and accompanied me great.

For my father, Cindy and designated Annecy.

For my wife, accompanying my path.

For my daughter, the most precious thing to my heart.

For the warmest home and happiness, my brothers and sisters.

For everyone who met me through my studying way.

I dedicate my effort and result.

TABLE OF CONTENTS

ABSTRACT.....	I
CERTIFICATION OF THESIS.....	II
ACKNOWLEDGEMENTS.....	III
DEDICATION.....	IV
CHAPTER 1: INTRODUCTION.....	1
1.1 INTRODUCTION.....	1
1.2 BACKGROUND.....	2
1.3 RESEARCH MOTIVATION.....	3
1.4 RESEARCH QUESTIONS.....	4
1.5 RESEARCH OBJECTIVES.....	5
1.6 IMPORTANCE OF THE STUDY.....	6
1.7 RESEARCH CONTRIBUTION.....	6
1.8 STRUCTURE OF THE THESIS.....	7
CHAPTER 2: THE AUSTRALIAN CONTEXT.....	11
2.1 INTRODUCTION.....	11
2.3 LEGAL AND FINANCIAL SYSTEMS.....	12
2.4 THE ACCOUNTING PROFESSION IN AUSTRALIA.....	14
2.5 THE TAXATION SYSTEM.....	16
2.7 ERM IN AUSTRALIA.....	19
2.8 CHAPTER SUMMARY.....	24
CHAPTER 3: LITERATURE REVIEW.....	27
3.1 INTRODUCTION.....	27
3.2 ECONOMIC CONSEQUENCES OF IFRS.....	29
3.2.1 <i>Transparency, Reporting Quality and IFRS Adoption</i>	29
3.3 ERM AND FIRM INCENTIVES UNDER IFRS.....	36
3.4 AUSTRALIAN STUDIES ON REPORTING QUALITY AND ECONOMIC CONSEQUENCES OF IFRS ADOPTION.....	36
3.5 RESEARCH GAP.....	37
3.6 RESEARCH HYPOTHESIS.....	38
3.6.1 <i>IFRS Versus GAAP and Firm Disclosure Transparency</i>	38
3.6.2 <i>The Role of ERM on Cost of Equity Capital</i>	39
3.7 CHAPTER SUMMARY.....	41

CHAPTER 4: ENTERPRISE RISK MANAGEMENT (ERM)	43
4.1 INTRODUCTION	43
4.2 BACKGROUND	43
4.3 HOLISTIC VS TRADITIONAL VIEW OF RISK	47
4.4 BENEFITS OF ERM	48
4.5 MEASURES OF ERM	49
4.6 LEGISLATIVE FRAMEWORKS OF ERM	50
4.8 ERM PILLARS	52
4.9 CHAPTER SUMMARY	54
CHAPTER 5: THEORETICAL FRAMEWORK	55
5.1 INTRODUCTION	55
5.2 BACKGROUND	55
5.3 AGENCY THEORY	56
5.4 SIGNALLING THEORY	60
5.5 CONTINGENCY THEORY	69
5.6 CHAPTER SUMMARY	73
CHAPTER 6: RESEARCH METHOD	75
6.1 INTRODUCTION	75
6.2 RESEARCH PARADIGM	75
6.4 DATA	78
6.5 STUDY VARIABLES AND MEASUREMENT	78
6.5.1 <i>Dependent Variables</i>	79
6.5.3 <i>Control Variables</i>	83
6.6 MODELS OF THE STUDY	84
6.7 CHAPTER SUMMARY	85
CHAPTER 7: RESULTS	87
7.1 INTRODUCTION	87
7.3 MULTIPLE REGRESSION ANALYSIS: DIAGNOSTIC CHECKS	89
7.3.1 <i>Multicollinearity</i>	89
7.3.2 <i>Normality</i>	90
7.3.3 <i>Heteroscedasticity</i>	91
7.3.4 <i>Outliers</i>	91
7.4 CORRELATION AND REGRESSION RESULTS	92
7.4.1 <i>Correlation</i>	92

7.4.2 <i>Regression</i>	93
7.5 HYPOTHESIS TESTING	115
7.6 CHAPTER SUMMARY.....	117
CHAPTER 8: CONCLUSION.....	119
8.1 INTRODUCTION	119
8.2 DISCUSSION OF FINDINGS	120
8.3 CONTRIBUTION TO LITERATURE AND PRACTICE	123
8.3.1 <i>Literature</i>	123
8.3.2 <i>Practice</i>	123
8.4 RESEARCH LIMITATIONS.....	124
8.5 DIRECTIONS FOR FUTURE RESEARCH.....	125
REFERENCES.....	126
APPENDICES.....	147

LIST OF TABLES

Table 1: Structure of The Thesis.....	9
Table 2: Sources of Risk.	23
Table 3: Studies Focused on the Economic Consequences of IFRS Adoption.....	35
Table 4: ERM Definitions and Descriptions.....	50
Table 5: Agency Theory Overview.....	57
Table 6: Review of Research Used Signalling Theory.	63
Table 7: Study Sample.	78
Table 8: Descriptive Analysis.	89
Table 9: Breusch-Pagan Test.	91
Table 10: Correlation Analysis.	92
Table 11: Regression Results for the First Model Using Accruals.	94
Table 12: Regression Results for the First Model Using Jones Model.....	100
Table 13: Regression Results for the First Model Using Modified Jones Model.	103
Table 14: Regression Results for the Second Model Using Accruals	106
Table 15: Resgression Results for the Second Model Using Jones Model.....	110
Table 16: Regression Results for the Second Model Using Modified Jones Model	114
Table 17: Australian Listed Firms Included in the Study Sample.	147
Table 18: IFRS.	159
Table 19: IAS.	159
Table 20: US GAAP	160

LIST OF FIGURES

Figure 1: Risk management standard in Australia ASNZS 4360:2004

Figure 1: Incentives Role for Users.

Figure 3: COSO Cube.

Figure 4: IRM Risk Appetite.

Figure 5: A Strategic View of Risk

Figure 6: A Strategic Business Process in Managing Risk

Figure 7: Articles Referencing ERM and CROs.

Figure 8: Protiviti's Risk-Informed Approach.

Figure 9: Issues in Agency Theory.

Figure 10: Signalling Timeline.

Figure 11: Contingency Theory Articles.

Figure 12: Initial Conceptual Framework (Contingency Variables).

Figure 13: Contingency Variables and ERM.

Figure 14: Burrell and Morgan Framework.

Figure 15: Normality Histogram.

LIST OF ABBREVIATIONS

IFRS:	International Financial Reporting Standards.
GAAP:	General Accepted Accounting Principles.
ERMIL:	Enterprise Risk Management.
FASB:	Financial Accounting Standards Board.
IASB:	International Accounting Standards Board.
COSO:	Committee of Sponsoring Organizations.
ASX:	Australian Stock Exchange.
ASIC:	Australian Securities and Investments Commission.
RBA:	Reserve Bank of Australia.
FSS:	Financial Stability Standards.
CFR:	Council of Financial Regulators.
PSASB:	Public-Sector Accounting Standards Board.
ASRB:	Accounting Standards Review Board.
AASB:	Australian Accounting Standards Board.
CPA:	Certified Public Accountant.
NIA:	National Institute of Accountants.
GFS:	Government Finance Statistics.
GST:	Goods and Services Tax.
PIT:	Australian Personal Income Tax.
PAYG:	Pay-As-You-Go.
ATO:	Australian Taxation Office.
ICSC:	International Accounting Standards Committee.
EWRM:	Enterprise-Wide Risk Management.
HRM:	Holistic Risk Management.
BRM:	Business Risk Management.
IRM:	Integrated Risk Management.
SRM:	Strategic Risk Management.
CAANZ:	Chartered Accountants Australia and New Zealand.
ANTS:	A New Tax System.
AARF:	Australian Accounting Research Foundation.
ACSB:	Accounting Standards Board.

CHAPTER 1: INTRODUCTION

"Whenever you see a successful person, you only see the public glories, never the private sacrifices to reach them". Vaibhav Shah

1.1 Introduction

International Financial Reporting Standards (IFRS) -as mentioned by IASB as a high-quality standard- may not achieve its stated objective of producing high-quality financial reports that serve the needs of stockholders, due to several factors. The need for firm incentives to be transparent is an important factor used to control the capital market effects of adopting IFRS, and there is a clear consensus in the international community that greater transparency is required by organizations, so efforts to strengthen the international financial system must go beyond improving transparency (Australia Treasurer, 1998). Incentives appear to dominate high-quality standards as a determinant of the quality of financial reporting (Verrecchia, 2001; Lambert, et al., 2007; Leuz & Verrecchia, 2000; Daske, et al., 2013; Lin, et al., 2012; Li, 2010; Jeanjean & Stolowy, 2008). The contractual association between managers and stockholder, should not be discussed separately from reporting incentives or managerial incentives (Harris, et al., 2013). Agency problems, where managers with high-quality incentives may endeavour to signal stockholders about their transparency incentives (Ball, et al., 2003), is another factor to be considered when investigating incentives of firms under IFRS. On the other hand, Coles, et al. (2006); Wright, et al. (2007) found that risk-taking strategy is positively associated with incentives given to managers. Furthermore, a new management philosophy for risk management is integral to fair value accounting, to achieve transparent disclosures (Jones & Luther, 2008; Barlev & Haddad, 2003). Additionally, it is important to ensure that the incentives are there for information to be used and incorporated in appropriate risk assessments (Australia Treasurer, 1998). The enterprise risk management (ERM) system is a new comprehensive risk management system, rather than the traditional view of risk, in that one of its implementation pillars is the transparency of disclosures (Acharyya & Johnson, 2006). The above discussion motivates the researcher to empirically investigate how implementing an ERM system by the firm management, benefits the adoption of IFRS, through its indirect effect on a firm's incentives, and the effect of this on the capital market implication. Australia has a strong legally constructed market, and because it has received less attention and limited evidence

from researchers regarding capital market implications of IFRS, the researcher is motivated to test the Australian evidence related to the capital market effects of adopting IFRS.

1.2 Background

In light of the move towards globally oriented markets and their effects on growth prospects, and on business expansion into global markets (Kohli & Jaworski, 1990; Kirubasuthan & Niranjana, 2018), it becomes difficult to isolate the domestic economic activity from international market events. This is due to the reduction in trade barriers, opening the markets to each other, and increasing the trade between corporations in different countries. As a result, this required the accounting profession to adopt accounting principles and standards that are in line with this orientation. Consequently, the last few decades have seen an increasing need for consolidated financial statements (Barlev & Haddad, 2003). Thus, accounting regulatory bodies began in 1973 to harmonise the different accounting practices and procedures between countries. Also, some attempts to standardise practices have continued to provide benefits to shareholders in order to go along with this evolution (Joos & Leung, 2013). Accounting Standard Boards indicated that as a high-quality set of standards, International Financial Reporting Standards _IFRS_ reduce information asymmetry and produce better disclosure transparency, which increases accounting information quality (reporting quality). Therefore, it has been suggested that capital markets should benefit from the adoption of IFRS (Barth & Landsman, 2003; Tendeloo & Vanstraelen, 2005; Barth, et al., 1995; Jeanjean & Stolowy, 2008). One area of organisational economics that researchers have investigated empirically, is the conflict of interest between managers and stockholders (Verrecchia, 2001). Results have shown that incentives for firms to be transparent and legal enforcement in a specific country, are both important factors that control the capital market effects of the adoption of IFRS (Lambert, et al., 2007; Leuz & Verrecchia, 2000; Daske, et al., 2013). In addition, some researchers have argued that incentives appear to be a determinant of the quality of financial reporting (Lin, et al., 2012; Li, 2010; Jeanjean & Stolowy, 2008). Also, internationally accepted standards with respect to transparency, allow market participants to compare disclosure practices against agreed benchmarks of good practice (Australia Treasurer, 1998). Therefore, harmonising incentives rather than standards, is a priority (Jeanjean & Stolowy, 2008; Daske, et al.,

2008). Therefore, managements without high-quality incentives will find adopting IFRS attractive as a means of false signalling of high-quality reporting, and the capital market will find it difficult to distinguish between low-quality reporting and high-quality reporting (Ball, et al., 2003).

Enterprise risk management was first proposed in the middle of the nineteenth century as a result of several factors such as the open market orientation and greater uncertainty, which stimulated new types of risk¹ such as; liquidity risk, market risk, inflation risk, and currency risk, etc. Since that date, many studies have been conducted in this area. Up to now, many guidelines such as COSO framework and ISO 31000, were released to help management adopt suitable risk management systems that are strategically managed (Arena, et al., 2010; Beasley, et al., 2005; COSO, 2004; Kleffner, et al., 2003). ERM implementation may capture managerial incentives, since one of its pillars is the transparency of disclosures, which may indicate that the willingness of management to adopt higher level of ERM reflects an emphasis on transparency. Therefore, the adoption of IFRS alongside ERM, may achieve the objective of IFRS -more transparent disclosures- regarding capital market effects from the view of firm incentives.

1.3 Research Motivation

Results have shown that incentives for firms to be transparent and legal enforcement in a specific country, are both important factors that control the capital market effects of the adoption of IFRS (Lambert, et al., 2007; Leuz & Verrecchia, 2000; Daske, et al., 2013). Which raises the question about the contractual association between managers and stockholders (Verrecchia, 2001). In addition, some researchers have argued that incentives appear to be a determinant of the quality of financial reporting (Lin, et al., 2012; Li, 2010; Jeanjean & Stolowy, 2008). Therefore, harmonising incentives rather than standards is a priority (Jeanjean & Stolowy, 2008; Daske, et al., 2008). Therefore, it will be attractive to managers to adopt IFRS for false signalling of high-quality reporting, and subsequently, the investors will find it difficult to distinguish between low-quality reporting and high-quality reporting (Ball, et al., 2003). On the other hand, Coles et al. (2006) and Wright et al. (2007) found that

¹ The term risk is used in many ways, and it is given different definitions depending on the field of study. In the accounting and finance fields, it describes the uncertainty that a future event with a favorable outcome will occur (see for example, Rowe, W, 1994).

Chapter 1: Introduction

risk-taking strategy is positively associated with incentives given to managers. Furthermore, a new management philosophy for risk management, is integral to fair value accounting to achieve transparent disclosures (Jones & Luther, 2008; Barlev & Haddad, 2003). Also, one of the ERM implementation pillars is the transparency of disclosures (Acharyya & Johnson, 2006). This may indicate that the willingness of management to adopt higher level of ERM reflects an emphasis on transparency, which may capture the managerial incentives to be transparent. As a result, the implementation of ERM by the firm is recognised by investors. This discussion motivates the researcher to empirically investigate the role of ERM implementation by the firm management, on firm disclosure transparency and cost of equity capital. Additionally, the Australia market was chosen as it is a strong legally constructed market and because it has received less attention and limited evidence regarding capital market implications of IFRS.

1.4 Research Questions

The IFRS have greater chance of achieving their objectives of high-quality reporting and reduced cost of equity capital, if it is implemented in a country with strong legal enforcement and higher incentive for firms to be transparent. Additionally, since Australia has had less attention in this area, this raises the question about the effect of IFRS adoption by Australian firms, on incentives for the firm to be transparent. It is expected that the adoption of IFRS by Australian firms has no effect on firm incentives to be transparent, in parallel with past literature (see for example; Li, 2010 and Daske et. al., 2013). This discussion suggests that it is important to trace a strategy and/or a system that can capture firm incentives, and as a result, has an effect on cost of equity capital of the firm (the capital market effect). Risk-taking strategy that is adopted by the firm, is found to be positively associated with the incentives given to managers (Coles, et al., 2006). Also, the management philosophy in the firm is integral to fair value accounting, and to achieving transparent disclosures (Barlev & Haddad, 2003). This raises the question about the effect of implementing ERM system -especially because one of its pillars is the transparency of disclosures- by Australian firms on incentives, and subsequently, the cost of equity capital of the firm under the period of adopting IFRS. To sum up, the main and sub-research questions underlying the study are outlined as follows:

RQ1: Does the mandatory adoption of high-quality standards (IFRS) increase firm incentives to be transparent, for listed firms in Australia?

RQ2: Does the implementation of a higher level of the ERM system under the mandatory adoption of IFRS, have economic consequences (effects on cost of equity capital) for listed firms in Australia?

The second question leads to the following sub-questions:

RQ2a: Does the implementation of a higher level of the ERM system under the mandatory adoption of IFRS, capture firm incentives to be transparent for listed firms in Australia?

RQ2b: Does the implementation of a higher level of the ERM system, affect the economic consequences (cost of equity capital) of IFRS adoption through its indirect effect on disclosures transparency?

1.5 Research Objectives

It is proposed that IFRS introduces high-quality information only when the legal system is strong, and management is incentivised to achieve transparency in its disclosures. Based on the researchers' best knowledge, no study has captured managerial incentive factors using the ERM system, when linked to IFRS. **This study aims to investigate the role of enterprise risk management implementation level (ERMIL), with regard to the economic consequences of IFRS adoption, by examining the ERM indirect effect on firm incentives.** This will be done by testing the effect of mandatory adoption of IFRS instead of Australian GAAP on firm incentives, and then the incremental value of the ERM system on firm incentives. In short, this research aims to test the effect of applying ERM system to Australian firms on the capital market before and after the mandatory IFRS adoption. The Australian market has been the focus of this study since it had less attention by researchers in regard to the economic consequences of IFRS. Furthermore, the research objective is to build on the argument around agency theory, signalling theory, and contingency theory, by introducing empirical evidence of positive capital market reaction for signalling an ERM system during the IFRS period adoption, which as a result, may reduce costs of conflict between firm management and stockholders.

1.6 Importance of the Study

Although there are many studies that have discussed the economic consequences of IFRS adoption (Armstrong, et al., 2010; Bailey, et al., 2006; Beisland & Knivsfla, 2015; Daske, et al., 2013; Hail & Leuz, 2007), results were mixed regarding the effect of IFRS adoption on accounting information quality and cost of equity capital. Additionally, there is a consensus that firm managerial incentives and country law enforcement are two important factors that affect the association between the adoption of IFRS and cost of equity capital. Up to now, no study has captured the managerial incentives using ERM system. This study discusses ERM as a system that ensures managerial incentives are more transparent. Also, it introduces ERM as a system that may signal transparent management incentives for stockholders through the disclosures that may encourage management to implement an ERM system to serve stockholders and reduce agency costs. Additionally, this study provides evidence about the effect of IFRS adoption on firm disclosure transparency, and the incremental effect of ERM implementation on firm disclosure transparency in Australia. Furthermore, this study provides evidence from the Australian market as discussed in chapter two, which as a result, covers the country law enforcement factor that affects the association between IFRS adoption and cost of equity capital. It also provides evidence about the capital market implications for regulators such as the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB), that may encourage them to propose ERM system as a requirement to be implemented by firms in parallel with IFRS.

1.7 Research Contribution

This study aims to investigate empirically the role of ERM on firm disclosure transparency and as a result, on the cost of equity capital in the Australian market, which builds on the construction of the argument about the economic consequences of IFRS adoption. It builds on the argument around the financial reporting quality of IFRS adoption, through testing the effect of IFRS adoption on firm disclosure transparency. Also, it investigates a managerial control system - ERM system - as a proxy that may capture reporting incentives, through adding value to the firm disclosure transparency and as a result, affects the cost of equity capital. ERM has not been discussed before as a managerial system reflecting incentives from the view of disclosures transparency. It contributes to the field by providing new empirical

Chapter 1: Introduction

evidence from an Australian perspective, since previous literature that explored IFRS benefits on capital market in the Australian content is rare, and not in line with the main purpose of the adoption of IFRS as a standard that produces high quality reporting, and has positive economic consequences (Goodwin, et al., 2008; Barth, et al., 1995). Additionally, it may provide evidence that contributes to the argument over the last two decades about the benefits/costs of the ERM system (Gatzert & Martin, 2015; Gordon, et al., 2009). The results of the study may contribute to the practical applications for managers and stockholders, by introducing the ability of ERM system to signal firm reporting incentives, which may then lead to improved market efficiency and reduction of the costs between managers and stakeholders.

1.8 Structure of the Thesis

This thesis is comprised of nine chapters. Chapter one (this chapter) is the foundation of the thesis which discusses the research proposal, including the motivation, the research questions, the research objective, the importance of study and the research contribution. Also, it outlines the structure of the thesis.

Chapter Two provides an insight into the institutional background of the Australian market, and the ERM in Australia. It outlines the background of the Australian content, and the development of ERM in Australia. Also, it covers the standards that developed in the Australian content relating to ERM. Furthermore, this chapter discusses the Australian culture, and the organisational culture in dealing with ERM. This chapter also covers the legal and financial systems in Australia, and the role of the Australian Stock Exchange in ERM. The chapter discusses the accounting profession in Australia, including its development and the harmonisation process between the Australian standards and IFRS. Additionally, the taxation system in Australia is discussed. The chapter also covers the capital market in Australia, and the role of ERM in the Australian capital market. Finally, the chapter provides a summary.

Chapter Three surveys the previous literature on the topic, and pinpoints the gap in the literature. It starts with a discussion for the importance of studying the capital market implication of IFRS adoption. It also discusses the differences between GAAP and IFRS, and the historical development of IFRS. The chapter outlines the literature that discusses the accounting information quality of IFRS adoption, and the capital market implication of IFRS adoption. Then, it provides a discussion of the linkage between ERM and financial reporting, and the importance of ERM on

Chapter 1: Introduction

managerial incentives. Then it reviews the Australian studies discussing the capital market implication of IFRS adoption. Then, the chapter illustrates the gap in literature. Finally, the chapter summary is introduced.

Chapter Four provides a deep insight into the ERM system. It introduces the development history of ERM and its definition, and a discussion about it. It also discusses the development of the vision from the traditional view of risk to the holistic view. The benefits of ERM are also discussed. Additionally, it reviews the literature around the measures of ERM system. Also, the legislative frameworks and theories of ERM are discussed. The chapter also covers the pillars of ERM as discussed by academic literature. Finally, the chapter summary.

Chapter Five discusses the theories relating to the economic consequences of financial reporting. It provides a detailed review of agency theory, including its development, its basic assumptions, and why this study is motivated by agency theory. Also, it discusses signalling theory, including the development of the theory, and its implications, and why this study is motivated by signalling theory. Finally, the chapter summary is provided.

Chapter Six presents the research methods. It covers the development of the research hypothesis, and the research methodology. This is followed by the study variables and measurements, and then it discusses the models of the study.

Chapter Seven presents the analysis of the data using statistical tests. The assumptions of the statistical analysis are described, and the effect of IFRS adoption and the role of ERM implementation level are examined. Firstly, the chapter provides a descriptive analysis of the data, followed by a diagnostic check, by testing multicollinearity, normality, heteroscedasticity, and outliers. Then, the correlation between the study variables is tested, and multivariate regression analysis is performed to test the research hypothesis, including the role of ERM in the association between IFRS and cost of equity capital. Finally, the chapter summary.

Lastly, in chapter eight, results and findings are summarised, and the conclusions of the study are made. Firstly, the chapter discusses the findings deeply. Secondly, the contribution of the study to literature and to practice is introduced. Thirdly, the limitations of the study are presented, and the areas for further research are suggested.

Chapter 1: Introduction

Table 1: Structure of The Thesis.

Chapter No.	Content
Chapter 1	Research proposal, including research motivation, background, research questions, research objectives, importance and contribution of the study.
Chapter 2	The culture and the legal system in Australia. In addition to the accounting profession, the taxation system and the capital market in this country.
Chapter 3	The literature related to the study is surveyed. This includes an analysis of the economic impact of IFRS, ERM and firm incentives under IFRS, and a survey of literature on the reporting quality and economic consequences of the adoption of IFRS, and research gap.
Chapter 4	A discussion of ERM system.
Chapter 5	A discussion of theories that related to the study. Namely, agency and signalling theories.
Chapter 6	Presented research methodology and the models of the study.
Chapter 7	A discussion of the research findings, including the descriptive, correlation and regression analysis.
Chapter 8	A conclusion following the analysis of the research findings, limitations and direction for future research.

CHAPTER 2: THE AUSTRALIAN CONTEXT

"I have not failed. I've just found 10,000 ways that won't work". Thomas Edison.

2.1 Introduction

This study aims to investigate the role of enterprise risk management implementation level (ERMIL) with regard to the economic consequences of IFRS adoption by examining the ERM indirect effect on firm incentives.. This chapter discusses the Australian context and the case of ERM in Australia. In the remainder of the chapter, section 2.2 presents a background of the Australian content and ERM system in Australia. Section 2.3 considers the Australian culture and the organizational culture of ERM in Australia. Section 2.4 discusses the Australian legal and financial system. Section 2.5 explores the accounting profession in Australia. Section 2.6 discusses the taxation system in Australia. Finally, section 2.7 provides an overview of the capital market in Australia.

2.2 Culture

The Australian western culture and western financial system are derived from Britain, and are also influenced by the unique geography of the country. The British Empire expanded across the whole continent and established six colonies. British settlers first resided in what is known now as Sydney in 1788, and introduced western civilisation to Australia, laying the foundation for Australia's democratic institutions and rule of law, western art and music, and Judeo-Christian ethics. The Anglo-Celtic heritage in Australia includes the existence of a democratic system of government drawing upon the British traditions of Westminster government, parliamentarianism and constitutional monarchy. English is the largest spoken language in the home for about 73% of the population, followed by Mandarin (2.5%), Arabic (1.4%) and Italian (1.2%) (Australian bureau of Statistics, 2016).

The oldest surviving cultures in Australia are the Aboriginal and Torres Strait Islander populations. The Aboriginal people believe that they arrived as early as 60,000 years ago, and the evidence of Aboriginal art in Australia dates back 30,000 years (Department of Foreign Affairs and Trade, 2010). In 2006, the indigenous population was estimated at 517,000 people or 2.5% of the total population (Australian bureau of Statistics, 2016). The Aboriginal people also believe in Dreaming or

Chapter 2: The Australian Context

Dreamtime, which refers to the time when ancestral spirits created land and culture (Australian Museum, 2009).

In 1890, women became eligible to vote, and this was the first legislation in the world that permitted women to enter political office. In 1897, Catherine Helen became the first female political candidate (Australian Electoral Commission, 2007).

The Commonwealth of Australia was established in 1901, and the Australian Constitution established the federal democracy and human rights such as sections 41, 80, and 116 (Williams, 1999). The Australian Labour Party was established in the 1890's, and the Liberal Party in 1944, with both becoming the dominant political parties. In World Wars I and II, Australia fought at Britain's side and came under attack by the Empire of Japan.

Additionally, there was a period of multi-ethnic immigration in the latter half of the 19th century, but the parliament then instigated the White Australia Policy that gave preference to British migrants and ensured that Australia remained an Anglo-Celtic country. However, after World War II, a large number of southern European, Asian and Middle Eastern migrants were permitted to arrive, and by the 1970s the Whitlam and Fraser governments were promoting multiculturalism. Contemporary Australia is a pluralistic society rooted in liberal democratic traditions (Department of Foreign Affairs and Trade, 2012). It is also influenced by global movements of meaning and communicating, including advertising culture.

2.3 Legal and Financial Systems

The theory of law and finance argues that the common law system provides a better framework for financial development and economic growth (Graff, 2008) Australia is one of the English Common Law Countries where there is not always a written constitution or codified laws, with the legal precedents set by courts deciding specific cases and the judgements later incorporated into legislation, and extensive freedom of contract (PPPLRC, 2016). Two studies by La Porta, R et al. (1996; 1998) found a strong link between the capital market conditions and the countries legal traditions. They found that the English style Common Law Countries (including United Kingdom, United States, Australia, India, Singapore) have the most developed capital markets, compared to France's Napoleonic, the German model and Scandinavian countries. Also, the legal protections for shareholders and creditors were

Chapter 2: The Australian Context

stronger in the English style countries. Additionally, the financial investors in the common law countries are treated differently across legal families² (Graff, 2008). Also, Australia is one of the Anglo-Saxon countries that works based on the free market theory, where the public sector provides fewer services, contract enforcement³ and low barriers of free trade (Hassan, 2012). Which all indicates a strong economic position able to compete with the largest economies around the world.

The financial market is a market in which financial assets (securities) can be purchased or sold (Madura, 2010). The Australian Securities Exchange (ASX) is the national stock exchange in Australia and is situated in Sydney. It was established in 1987, and it is the 15th largest exchange in the world in terms of its market capitalisation of \$1,776,883 million in 2017 (FXCM, 2016). The main purpose of the ASX is to provide facilities for listing and transferring equities for listed firms that produce financial reports in compliance with the Australian Accounting Standards Board (AASB, 2016; Hicks & Wheller, 1990). It also provides all financial products for traders, such as equities, indices and debt instruments. The ASX conducts all trading operations digitally using cutting edge connectivity and information system technologies (FXCM, 2016; Australian Securities Exchange, 2017). The regulatory authority of the market rests with the Australian Securities and Investments Commission (ASIC), which is responsible for the supervision of real-time trading, oversight of the ASX'S clearing, facilitation of settlements and for the enforcement of laws against misconduct on the financial market. Additionally, the Reserve Bank of Australia (RBA) is responsible for assessing whether the settlements and licensing comply with Financial Stability Standards (FSS). These two parties work together with the Australian Prudential Regulatory Authority (APRA) and Treasury under the name of the Council of Financial Regulators (CFR), in order to contribute to the efficiency and effectiveness of the financial regulation, and stability of the financial system (Australian Securities Exchange, 2017). This structure has helped build a strong supervision of the market, which comprised more than 2,200 listed firms across all sectors as of 2017 (Australian Securities Exchange, 2017).

² Legal Families implies a certain relationship, origin and influence of a legal order on another (Dölemeyer, 2010).

³ The contract enforcement is the process of persuading the non compliant party to perform corrective actions (Xu & Vrieze, 2009).

Chapter 2: The Australian Context

As with all central banks around the world that aim to stabilise the economy, the RBA aims at achieving low inflation and unemployment rates by estimating these variables before determining the appropriate monetary policy direction (Madura, 2010). Regarding how monetary policy⁴ corrects the market, one of the monetary policy mechanism channels is the interest rate channel, which assumes that once the federal bank assesses the economic conditions, the monetary policy is decided. Changing the money supply will directly affect the interest rates, which has an effect on the aggregate borrowing and spending in the economy, and therefore the aggregate spending affects the demand for products and services which changes price levels (inflation) and employment levels (Madura, 2010).

The evolution of Australian monetary policy originates from its pre-Radcliffean state (when bank advances were the focus), which developed into market-oriented policies (Davis & Lewis, 1981). The Reserve Bank of Australia (RBA) produces its own econometric model which hypothesises that interest rates have both direct and indirect effects on consumption and investment (Davis & Lewis, 1981). In recent years, the monetary authorities in Australia have attempted to achieve a range of short-term and medium-term objectives. However, the Reserve Bank Act 1959 section 10 (2) in Australia, stated that RBA policy should be directed to the greatest advantage of the Australian people, with the following objectives: (A) maintaining the stability of Australian Dollar, (B) maintaining (targeting) full employment and (C) maximizing the economic prosperity and social welfare (Stemp & Murphy, 1990).

2.4 The Accounting Profession in Australia

The accounting profession has developed dramatically since the middle of the 19th century. In 1966, the Australian Accounting Research Foundation (AARF) was activated, which includes two boards: the Accounting Standards Board (ACSB) and the Public-sector Accounting Standards Board (PSASB). These entities worked together and set standards for public and private sectors until 1984, when the Accounting Standards Review Board (ASRB) was established to review the standards (AASB, 2016). In 1991, ASRB was renamed as the Australian Accounting Standards

⁴ Monetary policy consists of the process of drafting, announcing, and implementing the plan of action taken by the central bank, currency board, or other monetary authority that controls the quantity of money in the economy and the channels by which new money is supplied (Reserve Bank of Australia, 2018).

Chapter 2: The Australian Context

Board (AASB), and the new board was responsible for developing and maintaining the application of accounting standards to meet the needs of users. It also sought to harmonise its standards with the International Financial Reporting Standards (IFRS). It announced the gradual implementation of IFRS in 2002, which was later enforced for all listed Australian firms in January 2005 (AASB, 2016). The reasons behind the gradual implementation of IFRS are varied, but two main reasons are: the corporate collapses in Australia which called into question the credibility of the accounting profession in the country, and the increasing government intervention aimed at further regulating the financial affairs of corporations (Abeysekera, 2006).

There are three representative bodies for the accounting profession in Australia. Namely, the Institute of Chartered Accountants Australia and New Zealand (CAANZ), the Certified Public Accountant (CPA) Institute, and the National Institute of Accountants (NIA). These bodies have the professional obligation to take all reasonable steps within their jurisdiction to ensure that all involved entities comply with the AASB in preparing their general-purpose financial reports (ASIC, 2017).

The AASB is committed to apply the approach of IASB by adopting IFRS. The AASB announced the gradual implementation of IFRS since 2002 to the annual reporting periods beginning on or after 1st January 2005, for private Australian firms. Moreover, since 2003, a harmonisation process has taken place consistent with government finance statistics (GFS) and generally accepted accounting principles (GAAP) in the public sector. The Australian Securities and Investments Commission (ASIC) mandated the adoption by Australian firms of IFRS in January 2005 (AASB, 2016). The mandatory adoption of IFRS in Australia resulted in better accounting quality than previously Australian accepted accounting principles, which as a result, reduce earnings management (Chua, et al., 2012).

In 1985, Schmitter specified that the corporative association between the accounting profession and government, requires official recognition or encouragement from the government to be able to form a monopoly. Thus, the government promotes the accounting profession as a medium for creating and implementing its policies. Robson and Cooper (1989) also highlighted the notion of the power relationship between the accounting profession and government from 1940 to 1989, followed by a paper by Abeysekera (2006), who sought to understand how this power relationship is influenced by major events in society. Abeysekera

Chapter 2: The Australian Context

concluded that the accounting profession in Australia has entered an episode of liberal ideas through the adoption of IFRS, and has chosen to identify its own functional interests with IASB to consolidate the power of its members.

2.5 The Taxation System

During the second half of the 1970s, the argument about the appropriate size of the public sector in Australia became a debating point, and tax reforms were announced (Groenewegen, 1980). Tax reform concerns the selection of best tax instruments to raise revenue in a fair, simple and efficient manner, as a criterion for a good tax system (Groenewegen, 1980).

Tax revenues in Australia are allocated to public service, and transfer payments as a redistribution of income in the market system. Regarding tax revenues and spending ability, a vertical fiscal imbalance is applied in Australia, which means that the higher government level - the Commonwealth - has the majority of the power to raise tax revenues, and then distributes these revenues to the states in order to provide services to the community (Spasovejic & Nicholas, 2013; Gilder, et al., 2016). The tax structure in Australia can be discussed in various ways: it can be considered from the point of view of the taxing body and the level of government with which it is associated, so there is the taxation by level of government and taxation by tax base. Taxation by level of government is obtained through a brief examination of the relative shares in total taxation of the commonwealth government.

There are three levels of government that collect taxes: commonwealth government, state government and local government. The revenue sources for the commonwealth government comprise personal income tax, company income tax, dividends tax, interest withholding tax, estate, gift duty, pay-roll tax, sales tax, customs and excise duties, the stevedoring industry charge, levies on sections of primary industry, the tobacco charge and the poultry industry levy. At the level of the state government, tax sources include probate and succession duties, liquor taxes, land taxes, lottery taxes, racing and betting taxes, motor taxes, stamp duties and licence fees. Finally, the local government tax sources comprise motor vehicle registration in Western Australia, and the water rates levied by local government in various parts in Australia.

Chapter 2: The Australian Context

Taxation by tax base includes all taxes that are imposed on individuals, residents or non-residents of the country, that can be classified according to an income, property or outlay (Groenewegen, 1980). Taxation has three major consequences in terms of performance: it affects the allocation of resources, the distribution of income and finally the stability of the economy. From the above consequences, we can conclude three functions of taxation: transferring resources from the private to public sectors and correcting the misallocation of resources from the private sector to the public sector, changing the distribution of income, and finally the stabilisation function (Groenewegen, 1980). Imposed taxes in Australia are divided into direct and indirect taxes. Direct taxes include income taxes and property tax, while indirect taxes include the Goods and Services Tax (GST), Fuel Tax, Luxury Car Tax and agricultural levies (Woellner, et al., 2016). GST is the most commonly known tax in Australia, which is a broad-based tax of 10% on most goods, services and other items sold or consumed in Australia. Generally, all businesses that have GST turnover of \$75,000 or more (\$150,000 or more for non-profit organizations) need to register for GST and claim GST credits for GST included in the price of the business purchases. There are a few ways regarding how the business can send the business activity statement (BAS) to the Australian Taxation Office, for example; the business may use the accounting software to produce a tax invoice and automatically generate reports of the business GST, or the business may put the GST that have been collected in a separate bank account. Another way is to take advantage of the cash accounting option to better align the business GST liabilities with the business cash flow (Australian Taxation Office , 2018).

The personal income tax (PIT) returned back from the war periods until the 1980s, and there appears to be a growing consensus in reforming PIT. From an economic perspective, the equity of PIT in Australia is a myth, and it is inequitable (Pope, 2005). Moreover, from this perspective, PIT can be divided into two groups: taxpayers that are part of PAYG, i.e. an individual wage, and those taxpayers who use trusts, partnerships or companies in a complex web of tax returns by the whole family in order to minimise the overall liability. The political perspective of PIT argues that payers are unorganised and do not have an effective lobby group (Pope, 2005). The PIT system is characterised by significant tax avoidance, which has three main

Chapter 2: The Australian Context

negative economic consequences: work disincentives, economic distortion and lower productivity (Pope, 2005).

In 1998, the federal government announced further reforms of tax law under a plan entitled “A New Tax System” (ANTS). As a result of the reforms, a new “Australian Business Number” system has been established in line with the Pay-As-You-Go (PAYG) system. This has been done in parallel with the announcements for gradual adoption of IFRS in Australia to replace the Australian GAAP. This may indicate the need for accounting standards - IFRS - that can absorb the taxation system in Australia.

Further, there are three complementary sources of taxation law in Australia. They are legislative (statute law), court decisions (case law) and rulings provided by the Australian Taxation Office (ATO). The first law is made by parliament, and the focus here is on the Income Tax Assessment Acts 1936, 1997, and the Fringe Benefits Tax Assessment Act 1986, as well as the Goods and Services Tax Act 1999. The second source of tax law is derived from court decisions and makes sense of statutory law. Finally, the third source is very important because the tax system would be in danger of becoming unworkable without acceptable practices, procedures and a mature relationship between the ATO and the public (Gilder, et al., 2016).

This complexity and huge system of taxation in Australia requires a strong and advanced accounting standard to deal efficiently with the tax system. Thus, IFRS includes a specific standard to deal with taxes properly. For example, IAS 12, income tax and the updated IFRIC 23 which talks about the uncertainty over Income Tax Treatments. IAS 12 includes a requirement for the recognition and measurement of current and deferred income tax liabilities and assets. Also, it includes cases where the application of tax law is uncertain. Companies use varied accounting treatments, which make it hard for investors to compare companies’ financial positions and performance. Whilst IFRIC 23 includes requirements that improve the consistency and transparency of accounting for uncertain income tax treatments. Therefore, investors will find it easier to assess and compare the financial positions and performances of companies whose financial statements comply with the requirements (IASB, 2019).

2.6 Capital Market

Capital market refers to activities that gather funds from some entities and make them available to other entities needing funds. The capital market in Australia is volatile and innovative which increases the risk levels in the market. In 2016, the loan markets were down 20% compared to 2015; also, the corporate bond market experienced the same decline. Reasons for these declines are the transition of the economy following the mining industry boom, challenges in the construction industry and the debate over foreign investment (Lambert, 2017). Which as a result, required a strong risk management strategy to be performed by Australian firms to deal with the high risk associated with the Australian capital market. There are four key differences between 2007 and 2016. Namely, lower cost of capital environment, preference of equity funding, debt is being done differently and occupier markets have more give (Colliers International, 2016). Three key factors affect the Australian domestic market. Firstly, the continued rise of the importance of Asian investors. This importance has been consistent since the global financial crisis. Secondly, the rise of power of self-managed superannuation. Thirdly, the previous two factors may help increase innovation (Lambert, 2017). The Australian loan market realised a substantial decline of over 25%. This decline is due to such factors as low credit growth, reduced level of refinancing and increased loan pricing. Also, the loan market experienced an increase in new banks improving local liquidity available to borrowers (Lambert, 2017). In 2017, it was revealed how banks dealt with regulatory change and increased prudential requirements. This resulted in increased funding and capital costs. This management was in different ways through either being more selective, reduced holding commitments or increased securitisation of loan assets (Lambert, 2017).

2.7 ERM in Australia

The culture diversity and the influence of the British culture as mentioned previously in this chapter, and also the openness to the global markets, contributed to broaden the Australian business culture and helped it to recognise the surrounding environment in a more efficient way. Thus, the business environment in Australia has come to consider the risks in this environment more deeply. For example, Brown et al., (2009) illustrated that the complex risk and regulatory environment in high technology firms may necessitate the creation of a separate risk management

Chapter 2: The Australian Context

committee in Australian biotechnology firms. So, it was the time to consider that the organization's culture and strategy must be aligned to be successful, and it is reasonable to assume that an organisation's culture would be a significant factor in explaining the strategic value of ERM (Viscelli, et al., 2016). Thus, the organisational culture in Australia plays an important role for organisations to implement enterprise risk management practices. Thus, the need for a risk management committee in each Australian firm, has become urgent and the importance of risk management in Australian organisations has been emphasised by regulatory bodies such as; Australian Transaction Reports and Analysis Centre, the Australian Charities and Not-for-profit Commission (ACNC-AUSTRAC, 2017). Chen (2015) investigated the relationship between the not-for-profit organisational culture in Australia and the maturity of enterprise risk management practices. They found that the organisational culture factors are associated with the maturity of not-for-profit ERM. This result demonstrates the crucial role that leaders play in creating such a culture within their organisations. Thus, the corporate governance council of the Australian Stock Exchange has set guidelines for risk management within Australian public listed firms. The board of directors is responsible for establishing and implementing a proper risk management system in each firm in Australia. The introduction of ASX corporate governance council's principles of good corporate governance and best practice recommendations in 2003, were an effort to raise the standard of corporate governance of public companies in Australia (Whyntie, 2012; Brown, et al., 2009). The principles and recommendations address 10 key areas that cover the foundations of management, structure of board, ethical and responsible decision making, safeguarding, making timely and balanced disclosure, respecting the rights of shareholders, recognizing and managing risk, encouraging enhanced performance, remunerating fairly and responsibly, and recognising the legitimate interests of stakeholders (Brown, et al., 2009). In 2006, the Australian Stock Exchange issued an exposure draft updating the principles, and the 10 principles were reduced to eight, and the revised principles become effective on January 1, 2008 (ASX Corporate Governance Council, 2006). As a result, the Australian and New Zealand risk management standard ASNZS 4360, has become accepted and proven as the better practice approach in Australia.

At the same time, ERM implementation received increased attention by Australian firms as a result of the congruence of investors and other stakeholders'

Chapter 2: The Australian Context

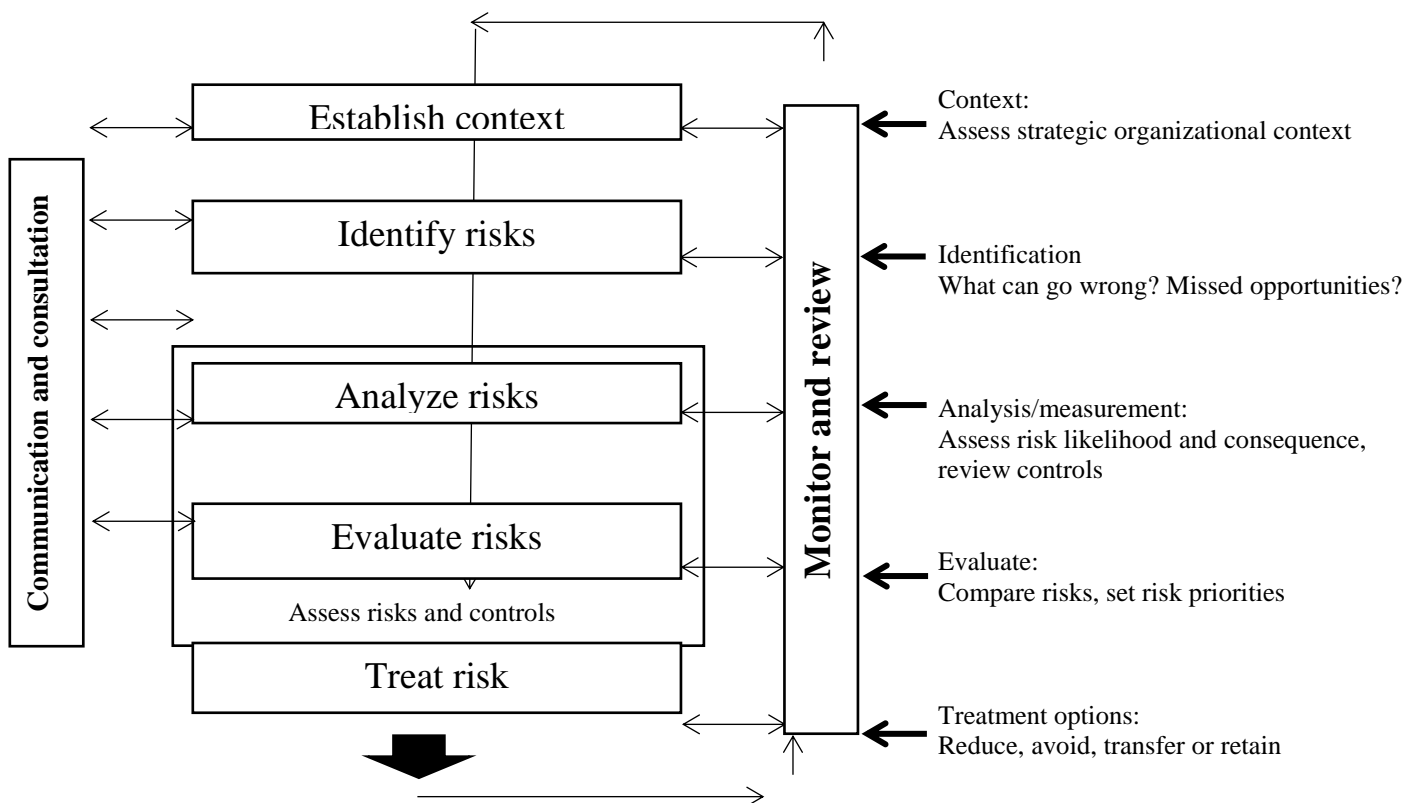
demands for corporate governance, following the collapse of many large Australian firms such as OneTel and HIH (Kang, et al., 2007). Up to now, little is known about the implementation of ERM in Australia. However, many researchers show that ERM is implemented by Australian firms (Subramaniam, et al., 2009; Subramaniam, et al., 2015). Also, the majority of the Australian firms not only extensively implement ERM but also extensively embed ERM into their corporate strategic processes (Ahmad, et al., 2014). In 1995, Australia and New Zealand produced the first edition of AS/NZS 4360, which is the first risk management standard (Moeller, 2007). The latest version of risk management standard has been embraced and updated as the world's risk management standard in 2004 (Australia Standards, 2004).

Figure (1) illustrates the risk management standard in Australia AS/NZS 4360:2004, which outlines that the risk management process contributes to good governance and provides some protection for directors. This protection occurs on two levels: the adverse outcomes may not be as they might otherwise have been and those accountable can demonstrate that they have exercised a proper level of diligence. The effective communication will ensure that those responsible for implementing risk management and those with a vested interest, understand the basis on which risk management decisions are made and why particular actions are required. Also, it is important to recognise the need to promote risk management concepts across all management and staff, and to consider the expectations and needs of stakeholders when identifying and assessing risk. In establishing the context, the purpose is to define the context and scope for the risk assessment. This involves understanding both the internal and external environment. The external context should take into consideration the external environment including the physical environment, the business, social, regulatory, financial and political environment, the local government, the strength and weaknesses of the organisation, the threats and opportunities, and the social responsibility issues. In the internal context, the organisation should consider the organisational structure, organizational culture, risk culture, internal stakeholders, and the goals and objectives. For the risk management context, the level of detail that will be entered into during the risk management process, must be considered prior to the commencement. The next step in the process is identifying the risk. In this step, a comprehensive identification using a well-structured systematic process is critical. A number of questions should be asked when identifying risk, such as: What can happen?

Chapter 2: The Australian Context

Where could it happen? Why would it happen? Once all the risks have been identified, then the next step in the process is to analyse the risk. This step involves assessing the likelihood of risk actually occurring, and the consequence on the operations or objectives if risk did occur. After that, it comes to treating the risk. The treating step requires identifying a range of options, evaluating the options and developing additional controls for implementation. Risk treatment can be either preventive controls or corrective controls. In the preventive controls, it is designed to reduce the likelihood of the risk occurring. Although, the corrective controls are implemented if the risk does occur. The last step is monitoring and review. This step enables the organisation to proactively identify changes on the risk profile and adjust the organisational response as required. It helps shape the context and understanding of the risk profile, change in the risk ratings, identify new risks, or take the risk off the radar (AS/NZS 4360:2009, 2009).

Figure 1: risk management standard in Australia ASNZS 4360:2004



Source: AS/NZS 4360:2009, P.14.

Chapter 2: The Australian Context

Additionally, AS/NZS 4360:1999 provides a guide for firms about major sources of risks. Table (2) indicates those sources of risk. It lists risk associated with commercial and legal relationships, such as relationships with suppliers, real estate agents, and landlords. It also provides types of risks related to international operations including foreign exchange and interest rates, and risks associated with human behaviour such as employees and clients; also risks associated with natural events such as weather, political circumstances such as legislative changes, technology such as IT, management activities and controls such as communications with suppliers, and individual activities such as employee turnover (Brown, et al., 2009; COSO, 2018).

Table 2: Sources of Risk.

Enterprise Risk Management Categories	
Risk Category	Broad Definitions
Corporate Governance	Risks relating to the efficient and effective direction and operation of the organisation; risks to ethical, responsible and transparent decision making; corruption, fraud risks; risks to compliance with Council policy/procedure; risks relating to legislative compliance; legal matters.
Service Delivery	Risks to the operation of the organisation in providing services to the community; impact on assets or infrastructure; impact on projects.
Financial Management	Risks relating to any activity that results in either an increase or a decrease to expenses or revenue; impact on Delivery Program and Operational Plan.
Image and Reputation	Risks relating to generation of positive or negative publicity; deletion or creation of goodwill.
Political	Risks relating to public reaction; risks relating to activities that cause involvement by watchdog agencies such as ICAC; public pressure that impacts on decision-making.
Environmental	Risks relating to environmental impacts including pollution, climate change, natural climatic events, land use and the natural environment.
Health and Safety	Risks relating to accident, injury or illness to Council staff, Councillors, contractors, visitors or members of the public.
Employees	Risks to staff, recruitment, skill shortages, availability, management, moral, retention etc of Council employees.
Stakeholders	Risks relating to parties external to Council and their relationship/interaction with Council; impact of change; stakeholder expectations.

Chapter 2: The Australian Context

Projects	Risks relating to major projects - including planning, scheduling, scope, procurement, design, quality, repairs & maintenance, materials, and contractor/consultant availability and management. Note: consideration and ratings must be given to all other risk categories for each Project.
----------	---

Source: AS/NZS 4360:1999

Furthermore, the internal auditors in the Australian firms have become more aware of the appropriate roles that they can play to manage risks through ERM (Zwaan, et al., 2011). Also, in more recent times, there has been significant growth in RMCs which are specialised risk-focused board committees. The RMC is defined as a sub-committee of the board of directors that provides enterprise risk management education at board level, establishes buy-in at board level for risk appetite and risk strategy, develops ownership of risk management oversight by the board, and reviews risk reports of the company (Subramaniam, et al., 2009). In addition, the board of directors is required to disclose whether it has received assurance from the chief executive officer (CEO) and the chief financial officer that the financial statements as reported by the company are found on a sound system of risk management and internal compliance and control (Subramaniam, et al., 2009). Additionally, some argue that the Australian economy has weathered the global financial crisis and continuing market turbulence, as a result of the improvement of risk management as a factor in that (Whyntie, 2012). On the other hand, the focus has tended to be on operational, work health and safety and environmental risk management, but few Australian companies paid attention to strategic risk management (Whyntie, 2012). Also, It is found that the Australian construction industry's overall risk management risk level was relatively low, and it is necessary to provide more training on qualitative and quantitative risk analysis to construction personnel, and to develop and apply standardized enterprise risk management (Zou, et al., 2010).

2.8 Chapter Summary

This chapter presented the institutional background of Australia in detail. To sum up, there is a well-established economic and financial system in Australia, as a culturally diversified large country. The specifics of the country as reflected in its cultural background and legal system, have made it important to have an accounting system that is, whilst unique, keep a continuous follow up of the developments in the

Chapter 2: The Australian Context

international best accounting practices as revealed by the updates and releases of the relevant international entities engaged with unifying accounting practices on the global level. The case of ERM system became prominent in Australia, and regulatory bodies issued standards for firms to adopt a more strategic risk management system. Additionally, businesses in Australia recognised the need for corporate governance mechanisms as a result of crises and collapses of large businesses. The majority of Australian firms not only extensively implement ERM, but also extensively embed ERM into their corporate strategic processes. The next chapter discusses the literature related to the study, and addresses the gap in literature, and related literature conducted in the Australian market.

CHAPTER 3: LITERATURE REVIEW

"If you can not explain it simply, you do not understand it well enough". Albert Einstein.

3.1 Introduction

This study aims to investigate the role of enterprise risk management implementation level (ERMIL) with regards to the economic consequences of IFRS adoption, by examining the ERM indirect effect on firm incentives. This chapter discusses the literature review that discussed the economic consequences of IFRS adoption (capital market implication), and presents the gap in literature. Also, this chapter discusses the studies that described the economic consequences of IFRS adoption in Australia.

In order to do that, it is important to discuss the historical issue between GAAP and IFRS. Generally speaking, the accounting standards and roles have been discussed extensively over the last five decades. The conservative accounting school was prominent in practice and through the academic discipline. This view assumes that markets are relatively imperfect and incomplete. Consequently, financial reports were used to report the past transactions and events (Whittington, 2008). World War II had a substantial effect on communities, cultures and their visions about the future - accounting profession bodies and accountants were no exception - raising questions about the historical cost approach. In addition, globalisation and its outcomes such as the reduction of trade barriers, increased capital flows, increased foreign investment, increased liberalisation, the improvements in accounting technology and, more importantly, the inflation problem, contributed heavily to the re-thinking of the accounting standards (Rogoff, 2003; Deegan & Unerman, 2011). This includes the presentation of accounting numbers, measurement and disclosures. For example, globalisation introduced economic changes such as inflation and exchange rate fluctuations, meaning that accounting numbers do not provide useful information for users in inflation periods (Deegan & Unerman, 2011; Barlev & Haddad, 2003). Thus, the normative accounting approach was established, to prescribe new accounting models that provide relevant information for users who take the economic conditions into consideration.

In 1973, the International Accounting Standards Committee (ICSC) was created by a group of accounting bodies from Australia, France, Germany, Japan, Mexico, Netherlands, Canada, the UK and the USA (Deegan & Unerman, 2011). The

Chapter 3: Literature Review

ICSC aims to issue international accounting standards (IAS) for public interest by highlighting the idea of fair value accounting that better reflects the underlying economic value (IASB, 1998). The ICSC released the first draft of the project in the form of a conceptual framework in 1989 (Whittington, 2008). Following this, some changes in the operation and structure of the committee took place in the late 1990's. In 2003, the name of the group changed from ICSC to the International Accounting Standards Board (IASB,) to publish the international financial reporting standards (IFRS) (Paananen & Lin, 2009; Deegan & Unerman, 2011). The IASB conducted many refining processes on the conceptual framework. The last project on the conceptual framework started in July 2013 with a discussion paper followed by feedback, and an exposure draft was issued in May 2015, for the feedback process which was finalized by April 2016. The board has been working on the exposure draft since that time, to issue the revised conceptual framework for financial reporting within the 4th quarter of 2017 (IASB, 2017).

GAAP are rules that give managers guidance for how to report the financial transaction (Bratton & Cunningham, 2009). Whilst IFRS are a principle with less guidance, and may give options to report the same accounting process (IASB, 2016). Therefore, firms that adopt IFRS must achieve the general purposes of the standards using any option formulated under each accounting standard. In light of which option is better for firms, IFRS gives the managers multiple options for reflecting the accounting transaction. In conclusion, IFRS give the managers more freedom options for the same accounting transaction and reduce reporting discretion and greater disclosure. Also, it raised questions regarding the stockholder's interests under IFRS from the standpoint of the contractual association between the agent (management) and principal (stockholder). Furthermore, past studies reported that IFRS are more effective in stopping biased financial reports, and less aggressive judgments than the rules-based standards (Psaros & Trotman, 2004; Cohen, et al., 2013). Also, Ramanna and Sletten, (2009) asserted that countries are more likely to adopt IFRS if the countries are within the same geographical region as other IFRS adopters. Additionally, Ashbaugh and Pincus (2001) note that IFRS are superior to domestic accounting standards in certain countries, in that they lead to increased disclosure and/or a restricted set of measurement methods.

The remainder of this chapter is classified as follows: section 3.2 explores the economic consequences of IFRS adoption. It is divided into two sub sections. Sub

section 3.2.1 discusses the firm incentives, accounting quality and IFRS adoption, whilst sub section 3.2.2 discusses effects of IFRS adoption on the capital market. Section 3.3 discusses ERM and firm incentives under IFRS. The Australian studies of the economic consequences of IFRS adoption are outlined in section 3.4. Finally, section 3.5 discusses the study gap and section 3.6 concludes this chapter.

3.2 Economic Consequences of IFRS

3.2.1 Transparency, Reporting Quality and IFRS Adoption

In its mission statement, the IASB intends to bring transparency, accountability and efficiency to financial markets through developing IFRS. IASB believes that enhancing the qualitative characteristics of accounting information, will introduce more useful information for investors, lenders and creditors for their decisions. In the conceptual framework for financial reporting, IASB formulates two fundamental qualitative characteristics to achieve the usefulness: value relevance⁵ and faithful representation⁶. The usefulness is enhanced if the financial information is comparable, verifiable, timely and understandable. All of these work towards the full picture of high-quality financial reporting, to complete the mission statement of IASB, including transparency (FASB, 2018).

Transparency is crucial for maintaining qualitative characteristics of financial reporting. Three questions are raised consequently: Does IFRS adoption achieve high reporting quality? Does higher reporting quality increase transparency? Does increasing transparency reflect management incentives to be transparent? For the above questions, Barth et al. (1995) indicated that adopting IFRS as a high-quality standard is not the only factor that improves the quality of accounting information, since law enforcement and reporting incentives are also factors. Ball et al. (2003) also explained that high quality standards are necessary but not a condition for high-quality information. Also, Ball et al., (2006) discussed that reporting quality is largely shaped not by accounting standards alone, but also by economic and political forces. This assumes that adopting IFRS will not alone guarantee a reporting that is of high quality; reporting incentives must be taken into consideration in line with adopting IFRS in

⁵ Value relevance is defined as the ability of information disclosed by financial statements, to capture and summarize firm value (Kargin, 2013).

⁶ Faithful representation is when the depiction of an economic phenomenon is complete, neutral, and free from material error. It is defined as the concept that financial information faithfully represents an economic phenomenon, and accurately reflects the condition of a business (IASB, 2009).

Chapter 3: Literature Review

order to enhance the reporting quality (Soderstrom & Sun, 2007; Jeanjean & Stolowy, 2008). For example, some studies did not find an association between voluntary IFRS adoption and lower earnings management, as one of the concepts of reporting quality (Tendeloo & Vanstraelen, 2005; Jeanjean & Stolowy, 2008). Some other studies argued that reporting under GAAP is higher or at least similar quality compared to IFRS, regarding value relevance, earnings management and timely recognition (Lin, et al., 2012; Goodwin, et al., 2008).

Furthermore, the empirical evidence showed a worsening, or at least no improvement, in the value relevance of financial reporting in the post-adoption period of IFRS. For instance, Francis and Schipper (1999) proved a decline of value relevance over the period (1952-1994). Similarly, Ahmed et al. (2013) concluded that the accounting quality declined under the mandatory IFRS adoption. In addition, Callao et al. (2007) explored the effects of IFRS on the value relevance of financial reporting in Spain using semi-annual data for the years 2004 and 2005, and showed that there was no improvement in value relevance after the adoption of IFRS by Spanish firms. Using data from the Australian market, Ji & Lu (2014) discussed the decline in the value relevance of intangibles in the post-adoption period of IFRS.

On the other hand, Clarkson et al. (2011) considered the value relevance of book value and earnings in Europe and Australia, and found that IFRS enhances comparability. Furthermore, Beisland & Knivsfla (2015) assume that fair value accounting increases the value relevance of the book value, but earnings decrease under fair value accounting. Furthermore, Horton et al. (2013) found that the forecast accuracy and the other measures of quality, improve significantly under mandatory IFRS adoption, which indicates that IFRS improves the information environment in comparison with non-IFRS periods. Similarly, Barth & Schipper (2008) confirm that there is a difference in the accounting quality between firms that adopt IFRS and those firms that do not adopt IFRS. Also, Gassen and Sellhorn (2006) documented a significant difference in term of the earnings quality between IFRS adopters and German-GAAP adopters, thus, they found that IFRS firms have more persistent, less predictable and more conditionally conservative earnings.

In conclusion, results were mixed regarding the impact of adopting IFRS standards on the quality of the financial reporting, as there is no clear-cut evidence in this regard. For example, there is, per literature, no assurance that the difference in quality of accounting information between IFRS and non-IFRS firms was due to the

Chapter 3: Literature Review

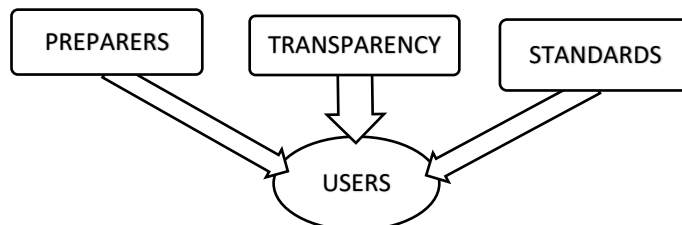
change in the quality of standards rather than incentives. Which means that the change in accounting quality may not be attributed to the change of financial reporting system, but to incentives and economic environment.

IASB introduces standards to achieve one of the overall objectives, which is transparency (FASB, 2018). This happens through achieving the information characteristics formulated in the conceptual framework of IFRS, which are value relevance and faithful representation, and these will be reflected in the capital market. However, the research conducted about the capital market is mixed regarding the effect of high-quality standards on high-quality financial reporting that achieves transparency, which raises the question about costs and benefits of IFRS, including agency cost. Transparency is defined as “the degree of information available to outsiders, allowing them to make decisions and/or to assess the decision of insiders” (Florini, 2007). Another definition of transparency is “comprehensibility, clarity, and clearness, and excellent corporate governance” (Hanson, 2003). Although standards are necessary, they are not conditional for high-quality reporting since incentives for managers and law enforcement play an important role in the quality of reporting (Ball, et al., 2003; Holthausen, 2003; Barth, et al., 1995).

Furthermore, reporting incentives dominate the accounting standards in determining accounting quality (Christensen, et al., 2015). Thus, firms that have incentives to adopt high-quality standards, will achieve higher quality accounting information than firms that do not have such incentives. Klinsukhon (2016) found that the transparency of the accounting information has a positive effect on quality of financial reporting. Moreover, some other studies found that transparency is negatively associated with the cost of capital (Barth, et al., 2013; Deboskey & Mogharebi, 2013).

To sum up, offering incentives for adopting IFRS as a goal to achieve transparent financial reports, should be considered in parallel with the accounting standards themselves, in order to serve investors. Chart 6 explains that IFRS alone will not introduce transparent disclosures. Rather, transparency is a moral concept that reflects the incentives of the preparers. It is an important factor that works along with standards, to achieve transparency for users.

Figure 2: Incentives Role for Users.



3.2.2 Capital Market and Accounting Quality

Zeff (1978, p. 56) defines the economic consequences as the impact of accounting reports on the decision-making behaviour of business, government, unions, investors and creditors. Sometimes the accounting standards are meant to have economic consequences. In most cases, it is unintended consequences. Barth et al. (1995) used a sample of US Banks for the period 1973-1990, and found that fair value accounting caused more volatility in earnings. However, this volatility was not perceived by investors through stock prices. Additionally, Gassen and Sellhorn (2006) documented that the stock prices of IFRS adopters seem to be more volatile in Germany. Furthermore, using a sample of firms who adopted IFRS voluntarily from 2002 and firms forced to adopt IFRS during the fiscal year 2005, Hail and Leuz (2007) investigated the effect of mandatory IFRS adoption on the cost of capital for EU member countries for the period 2001-2005. The results showed some evidence of lower cost of capital for all firms who adopted IFRS voluntarily and involuntarily, compared to the firms who did not adopt the IFRS at all, which was used as a benchmark for the effects that are unrelated to IFRS adoption. Additionally, they separately tested the effect of voluntary adoption pre- and post-endorsement date in 2002, showing a decline in cost of capital after endorsement date, and this decline exceeded the effect of mandatory adoption. Lambert et al. (2007) demonstrated that the quality of accounting information affects the cost of capital negatively, both directly and indirectly.

Furthermore, Daske et al. (2008) studied the effect of mandatory adoption of IFRS on market liquidity, cost of capital and Tobin's Q, using a sample of 26

Chapter 3: Literature Review

countries. He found that as the cost of capital decreases, both market liquidity and market valuation around the IFRS adoption time increased. However, this effect was conditional on stronger legal enforcement and in countries where firms are motivated to be transparent. Their results were consistent with past literature suggesting that the adoption of high-quality standards achieves economic benefits as well as achieving high-quality accounting information, but IFRS achieves high information quality in strong legal enforcement countries and in situations where transparency relates to the firm reporting incentives. In 2013, Daske et al. tested the effect of voluntary and mandatory adoption of IFRS on liquidity and cost of capital. They divided the sample into what he named serious adopters and label adopters, to reflect the firms that adopted IFRS as a part of their strategy to increase their commitment to transparency, and the firms that adopt IFRS superficially, respectively. Their results confirmed an increase in liquidity and decrease in cost of capital for those serious firms, but not for the label firms. Researchers also demonstrated that the interpretation of economic consequences regarding IFRS adoption reflects changes in firm reporting incentives, and not only the standards. Furthermore, Bova and Pereira (2012) negotiated around the importance of economic incentives in shaping IFRS compliance and the capital market benefits, to being compliant with IFRS in low enforcement countries. Barth (2008) supports the argument about the improvement of the firm information environment which contributes to lower cost of capital. In contrast, Li (2010) used a sample of data for 18 EU countries from 1995 to 2006, and found that there was no significant difference between voluntary and mandatory adoption regarding the effect of reducing cost of capital in the mandatory adoption period only in countries with high legal enforcement. Li (2010) also investigated the role of increased disclosures and comparability on the cost of capital, and found that these two mechanisms - country legal enforcement and incentives to be transparent - are reasons behind the capital market effects of IFRS.

Furthermore, Kim et al. (2012) found that there is no significant impact of eliminating the form 20-F reconciliation on cost of equity and market liquidity. Which implies that eliminating the differences between IFRS and GAAP does not have any effect on cost of equity capital. Christensen et al. (2009) explored the capital market responses to accounting information changes based on the perspective of debt contracting. They hypothesized that, since IFRS reconciliations predict subsequent earning, the stock price will respond to this announcement and responses will be high

for firms with a greater likelihood of debt covenant violation. They also found that IFRS produces new information which is useful for investors. Francis et al. (2004) provided evidence that conclude that the effect of the accounting-based attributes of earnings that include accrual quality, persistence and smoothing have higher effect on cost of equity capital compared to the market recognized attributes.

However, Hughes et al. (2007) proposed that greater information asymmetry increases cost of capital because of increased accounting disclosure, but this result is not a case of testing a cross-sectional effect. A similar result was obtained by He et al., (2013), using a sample from the Australian market. These results were consistent with the theory that the increased information asymmetry increases cost of capital. Bailey et al. (2006) indicated that market reactions increase as a result of increased disclosures for non-US firms with listed shares in the US market. In Germany, many studies have been conducted to investigate the economic consequences of IFRS/IAS adoption, and the results show a decrease in cost of capital for German firms during the transition period from German-GAAP to IFRS (Leuz & Verrecchia, 2000; Daske & Gebhardt, 2006). Houqe et al. (2016) built on the debate through introducing empirical evidence of a significant negative association between IFRS adoption and cost of equity capital from New Zealand listed firms. They analysed a sample of 290 in panel data for the periods 1998-2002 and 2009-2013. It is the first study that discussed the economic consequences of IFRS adoption in New Zealand, as mentioned by authors. They also suggested that IFRS provides a higher quality set of accounting standards compared to New Zealand GAAP.

Table 3: Studies Focused on the Economic Consequences of IFRS Adoption

N	1.	2.	3.	4.	5.	6.	7.	8.
Author	Leuz & Verrecchia (2000)	Daske et al. (2005).	Bailey et al. (2006)	Daske (2006)	Daske et al. (2008)	Li (2010)	Armstrong et al. (2010)	Houge et al. (2016)
Location	German	Worldscope	U.S.A	German	worldscope	European Union	Europe	New Zealand
Period				1993-2002	2001-2005	1995-2006	2002-2005	1998-2002 and 2009-2013
Variables	Bid-Ask Spread Trading Volume Volatility Size Free Float Capital Intensity Leverage ROA Foreign Listing Analyst Following Authorized New Equity	Return variability Bids-ask spread Trading volume Cost of capital Liquidity Industry-fixed Country-fixed Year-fixed Financial Leverage Forecast bias Inflation Price impact Reporting incentives Reporting behavior Reporting	Stock market price Stock trading volumes Capitalization Local market indices Exchange rates Total assets Total sales Sales growth Book to market ratio Earning surprise	Earning forecasts Number of shares outstanding Stock prices Book value of equity Payout ratio Industry classification Industry target-ROA Risk free rate	Zero returns Price impact Total trading costs Bid-ask spread Cost of capital IFRS adoption rate Market value Return variability Market benchmark	Cost of equity capital Mandatory IFRS adopters Post adoption period The interaction term between mandatory IFRS adopters and post adoption period Pp (if firm has a Private placement under Rule 144A) OTC (if firm trades its shares in the U.S) Exch (if the firm trades its shares on NYSE NASDAQ or	Pre-adoption information quality Bank (dummy variable equal to 1 if firm's primary two-digit SIC code is 60 or 61) Turnover (dummy variable equal 1 if firm's mean daily percentage shares traded during the year is above the median for all firms) Closebyheld (is the percentage of the firm's shares outstanding held by insiders at the end of the fiscal year) Herf (is the herfindahl	Cost of equity capital IFRS (dummy variable that takes the value of 1 for the years 2009-2013) Firm size The ratio of the market value of equity to the book value of equity Systematic risk Firm total disclosure The year effect
Outcomes	Increased levels of disclosure garner economically and statistically significant benefits.	Change around voluntary IAS/IFRS adoption. "Serious" adopters of environment	The absolute return and volume reactions to earnings announcements typically increases significantly.	Lower expected cost of equity capital for firms applying IAS/IFRS or US-GAAP.	Cost of equity capital decreases in time of introduction of IFRS, but this benefit occurs only in countries where firms	IFRS mandatory date significantly reduces the cost of equity capital, but this effect depends on the strength of the	Positive reaction to IFRS adoption events for firms with high-quality pre-adoption information.	A significant negative association between IFRS adoption and the cost of equity capital.

3.3 ERM and Firm Incentives Under IFRS

Barlev and Haddad (2003) focused more specifically on the management perception of their duties within IFRS adoption, especially their requirements of full disclosures and transparency. At this point, the researchers provided explanations about the contribution of fair value accounting to stewardship, agency costs and management efficiency. They also argued that management should take responsibility for achieving the goals of the new fair value accounting via making shareholders' equity the focus of interest. They contributed to the discussion by investigating the value relevance of fair value accounting from the management perspective. Additionally, Cohen et al. (2017) examined how ERM affects the quality of the financial reporting process, internal controls and auditing by interviewing three key players in the reporting process (CFOs, audit committee members and auditors) within 11 companies. They argued that this linkage is critical because the financial reporting adequately depicts the financial status and firm associated risks revealed by ERM. Based on the argument of Adams et al. (2011), they added that the company strategies and risks should be more explicitly and transparently disclosed to investors. In addition, firms should give the initiatives to integrated reporting that incorporates financial and non-financial metrics and their interlinkages. This captures a longer-term perspective and better reflects the firm strategy, as a result, enhancing the disclosure of risks. They found that ERM affects the quality of the reporting. Hence, ERM should not be discussed separately from the management reporting, and, more importantly, from agency theory, since ERM appears to primarily play a monitoring role in their sample companies.

3.4 Australian Studies on Reporting Quality and Economic Consequences of IFRS Adoption

To explore the accounting quality after the mandatory adoption of IFRS in Australia, Lin et al. (2012) used a sample of 153 companies on the Australian Stock Exchange (ASE) for the years 2000-2010, and found that the mandatory adoption of IFRS resulted in a better accounting quality than the previous Australian GAAP. In particular, the pervasiveness of earnings management decreased, the timelines of loss recognition improved, and the value relevance of financial information improved. Using a sample which includes 228 listed companies in the UK and Australia, Cairns et al. (2011) investigated whether within and between countries, comparability in

policy choices has changed in relation to mandatory and optional use of fair value accounting. They suggested that a conservative approach⁷ and/or lack of incentives to use fair value account for most companies, except banks, insurance companies and companies holding investment properties. Chalmers et al. (2011) investigated the value relevance of earnings and equity book value using a longitudinal study that covers pre-IFRS and post-IFRS periods from 1990 to 2008 in Australia. They relied on the ability of equity book value and earnings, to capture information that affects the share price as a measure of value relevance of these two accounting numbers (equity book value and earnings). The results showed that earnings were more relevant during the time period, whereas the equity book value were not. Earnings also were more persistent around IFRS adoption. They suggested that even in high-quality reporting and enforcement countries, IFRS adoption affects the association between accounting and capital market. In contrast, Goodwin et al. (2008) provided evidence on the effect of IFRS on accounts and accounting quality for 1065 firms in Australia. They relied on the retrospective reconciliation⁸ between AGAAP and IFRS, and found that IFRS increased liabilities and decreased earnings and equity. Furthermore, earnings and equity were not more relevant under IFRS adoption. On the other hand, Chua & Taylor (2008) considered whether the justification of the increased adoption of IFRS has economic consequences. They concluded that the widespread diffusion of IFRS today can be explained as an economically rational phenomenon. Finally, Jeanjean and Stolowy (2008) tested the effect of adoption of IFRS in Australia, France and the UK on earnings management, and found that earnings management did not decline after IFRS introduction. They suggested that sharing rules or standards is not a sufficient condition for common business language, and management incentives and national institutional factors are important in framing the financial reporting characteristics. Therefore, harmonizing incentives and institutional factors as opposed to standards, is a priority.

3.5 Research Gap

The above discussion showed that the capital market implication of accounting standards adoption is closely related to reporting incentives, and IFRS as a high quality

⁷ The conservative approach is the same as the historical cost approach.

⁸ Reconciliation is defined as the process of ensuring that two sets of records are in agreement (Thornton, 2018).

standard does not introduce high-quality accounting information until transparency of disclosures is the reporting incentive for management or when it is applied in strong law enforcement countries (Bushman & Smith, 2003; Daske, et al., 2008; Hail & Leuz, 2007). Coles et al. (2006) and Wright et al. (2007) found that risk-taking strategy is positively associated with incentives given to managers. Furthermore, a new management philosophy for risk management is integral to fair value accounting to achieve transparent disclosures (Jones & Luther, 2008; Barlev & Haddad, 2003). The new prominent approach of dealing with risks – ERM - has a significant role in management reporting that is reflected in the reporting quality for investors (Cohen, et al., 2017), and one of its implementation pillars is the transparency of disclosures (Acharyya & Johnson, 2006). However, no research has captured management incentives for mandatory IFRS adoption firms using the ERM system. This study fills the gap by testing the capital market benefits of mandatory IFRS adoption from the perspective of ERM empirically. This has not been done before to capture managerial reporting incentives.

3.6 Research Hypothesis

This study aims to examine the effect of IFRS adoption on firm disclosure transparency compared to GAAP adoption, and it is testing the role of ERM system in regard to the economic consequences of IFRS, through its indirect effect on firm disclosure transparency. The research questions that developed in chapter 1 are formulated into a testable hypothesis in this chapter.

3.6.1 IFRS Versus GAAP and Firm Disclosure Transparency

It is assumed that the adoption of high-quality standards (IFRS) results in reducing information asymmetry and better disclosure transparency, which as a result, improves accounting information quality. Thus, the capital market benefits from the adoption of high-quality standards (IFRS) (Jeanjean & Stolowy, 2008; Barth & Landsman, 2003; Tendeloo & Vanstraelen, 2005). Although, the research hypotheses were built based on the implication that the economic consequences of IFRS adoption depends on the two factors which are the managerial incentives and legal enforcement (Daske, et al., 2008; Daske, et al., 2013; Leuz & Verrecchia, 2000; Li, 2010). For the

first factor, which is the managerial incentives, it is important to consider the management incentives from the adoption of IFRS. For this reason, some researchers argued that incentives appear to dominate high-quality standards as a determinant of the quality of financial reporting (Verrecchia, 2001; Lambert, et al., 2007; Daske, et al., 2013). Which implies that adopting high quality standards is not the factor that give direction for incentives. Therefore, managements without high quality incentives will find it attractive to adopt IFRS as a high-quality standard for false signalling of high-quality reporting for investors (Ball, et al., 2003). Therefore, the researcher does not expect that adopting IFRS by Australian firms will increase incentives for more transparency, although past results reported positive influence of IFRS adoption on incentives, and principles-based standards are less likely to constrain aggressive reporting than rules-based standards (Cohen, et al., 2013). So, we should expect to find no association between the adoptions of high-quality standards (IFRS) and firm incentives to be transparent. This assumes that the adoption of IFRS by the Australian firms does not have an effect on the firm disclosure transparency. Furthermore, the researcher empirically tests this association in the strong Australian legal market to capture the other factors that affect the effect of IFRS adoption. The researcher proposes the following hypothesis:

H1 *Mandatory adoption of IFRS by the Australian firms has no statistically positive influence on firm disclosures transparency, compared with GAAP adoption.*

3.6.2 The Role of ERM on Cost of Equity Capital

The transparency problem requires an action or procedure and a selection of appropriate governance mechanism to capture incentives. Risk-taking strategy is positively associated with incentives given to managers (Coles, et al., 2006; Wright, et al., 2007). Furthermore, the new management philosophy for risk management is integral to fair value to achieve transparent disclosures (Jones & Luther, 2008; Barlev & Haddad, 2003). Also, many critics argue that the significant company strategies and risks should be more explicitly and transparently disclosed to investors (Adams, et al., 2011). For all the above, the adoption of risk strategy by the management, should be disclosed in the financial reports for investors. ERM is a new risk management strategy discussed by academics, and one of the pillars of ERM is the disclosure

transparency (Acharyya & Johnson, 2006). Cohen et. al., (2017) found a strong link between ERM and financial reporting process. Thus, the adoption of ERM by the firm management and disclosed through the financial reports, may reflect the management incentives to be transparent in its disclosures, which potentially captures incentives. This suggests that implementing a higher level of ERM will increase transparency of disclosures made by the management.

As mentioned, the implication around the economic consequences of IFRS adoption depends on two factors, which are the managerial incentives and legal enforcement. Since ERMIL is expected to capture the managerial incentives to be transparent, the researcher suggests that implementing higher level of ERM under IFRS period adoption, may achieve higher quality of reporting that is realized by investors, which affects the investors decision of reducing the discounted rate of the future cash flows, which as a result, reduces the cost of equity capital. Thus, implementing higher level of ERM by the firm management may has a positive economic consequence, and more accurately, a reduction in cost of equity capital for the firm. Furthermore, the researcher empirically tests this association in the strong Australian legal market to capture the other factors that affect the economic consequences of IFRS adoption. Taken together, the researcher hypothesises the following main and sub-hypothesis:

H2 *Implementing a higher level of ERM under the mandatory adoption of high-quality standards (IFRS) by Australian firms listed in ASX, has a statistically negative influence on firm cost of equity capital.*

The second hypothesis (H2) leads to the following sub-hypothesis:

H2a *Implementing a higher level of ERM under the mandatory adoption of high-quality standards (IFRS) by Australian firms listed in ASX, has a statistically positive influence on firm disclosures transparency.*

H2b *Implementing a higher level of ERM negatively affects the cost of equity capital in the IFRS adoption period, as a response to its indirect effect on disclosures transparency.*

3.7 Chapter Summary

This chapter reviewed the literature of the economic consequences of IFRS adoption in detail. To sum up, the literature survey reveals that the association between the adoption of IFRS and transparency may not be significant unless supported by law enforcement and managerial incentives. Regarding reporting quality and the economic consequences of IFRS, under IFRS adoption, showed mixed results. Thus, as a high-quality set of standards, IFRS does not introduce high-quality accounting information until transparency of disclosures is the reporting incentive for management or when it is applied in strong law enforcement countries. This indicates that preparers of financial statements must take into account incentives and the legal system, in order to achieve transparency along with IFRS adoption, which as a result, will be reflected on the capital market. Thus, this study presents the ERM system that may capture incentives of the firm management, and as a result contribute to the capital market implication. The next chapter discusses the ERM system including a discussion of its development, the holistic view of ERM, its benefits, its measures, the legislative frameworks of ERM, theories related to ERM, and finally its pillars.

CHAPTER 4: ENTERPRISE RISK MANAGEMENT (ERM)

**"Try not to become a person of success, but rather try to become a person of value". Albert
Einstein**

4.1 Introduction

This study aims to investigate the role of enterprise risk management implementation level (ERMIL) with regard to the economic consequences of IFRS adoption, by examining the ERM indirect effect on firm incentives. This chapter provides an insight overview of ERM, including a discussion of the historical view of ERM, a discussion of the traditional view of risk and the holistic view of risk, ERM measurements, legislation and definition of ERM, and pillars of ERM. The remainder of this chapter is divided as follows: section 4.2 presents a background of ERM system. Section 4.3 discusses the holistic view versus the traditional view of risk. Section 4.4 addresses the benefits of ERM. Section 4.5 discusses the measures of ERM. Section 4.6 discusses the legislative frameworks of ERM. Section 4.7 discusses the theories of ERM. Section 4.8 discusses the pillars of ERM. Finally, Section 4.9 the chapter summary.

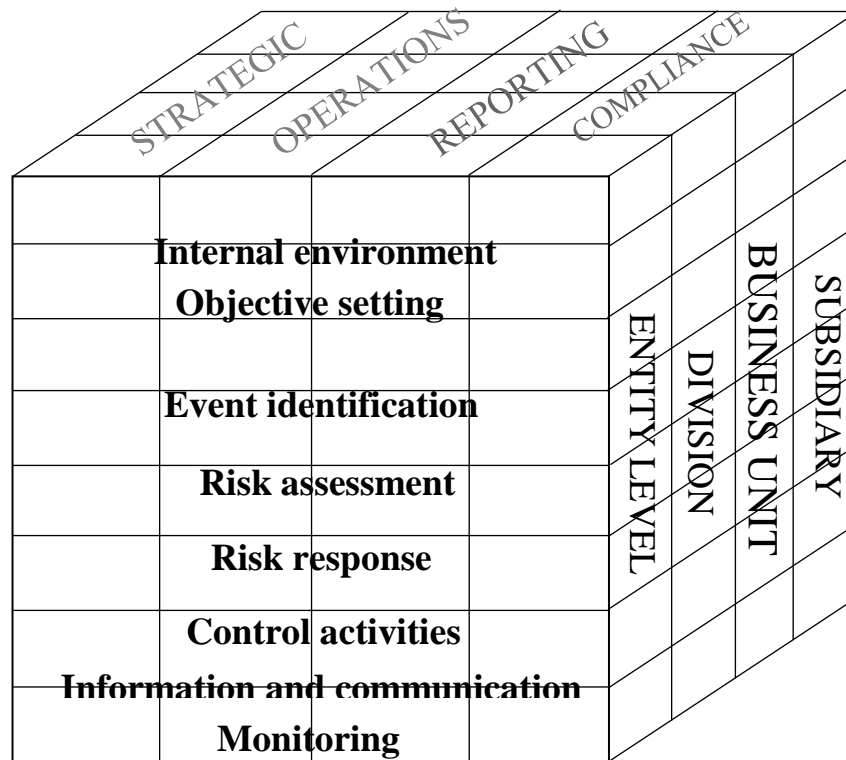
4.2 Background

In the last two decades, many factors and economic events contributed substantially to shifting the paradigm regarding the way risk management is viewed. The ERM system was established in the mid-1990s following the crises in the early 1990's, and the continuous international financial losses (Olson & Wu, 2010). Namely, the collapse of Barings Bank in 1995, the Asian financial crises during the period 1997 – 1998, and the global financial crises of 2008 (Razak, et al., 2016). Fraser & Simkings (2010) discussed these developments in the context of the failure of firms to manage their risks. In the same direction, the open market theory in the 19th century introduced lower trade barriers, consolidation of firms, international companies, currency rate sensitivity and increased competition locally and internationally (United States Trade Representative, 2013; Krist, 2007; European Central Bank, 2000), which has increased risks. Furthermore, changes in regulation and increased accountability standards for boards, contributed directly to the re-thinking of the risk management

Chapter 4: Enterprise Risk Management (ERM)

view. Additionally, the technological advances of software, economic analytical models and statistics, have made it possible to deal with and compute risks more comprehensively (Kleffner & Jaworski, 1990; Cumming & Hirtle, 2001). These factors played a role in reconsideration risk management practice as firms came under pressure to strengthen their risk management (RM) systems because stakeholder expectations regarding risk management have been increasing rapidly. Regulators and standard setters also issued new risk management rules and guides. In addition, some rating agencies such as Standard & Poor's, started in 2008 to evaluate risk system firms as part of their credit rating (Paape & Spekle, 2012; Lundqvist, 2014). In September 2004, the Committee of Sponsoring Organizations (COSO) issued the Enterprise Risk Management Integrated Framework, to provide a framework for firms to implement ERM. The framework defines ERM as a "*Process, affected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives*" (COSO, 2004). The term ERM, carries a similar meaning to enterprise-wide risk management (EWRM), holistic risk management (HRM), business risk management (BRM), integrated risk management (IRM) and strategic risk management (SRM) (Tahir & Razali, 2011; Hoyt & Liebenberg, 2011). The committee of sponsoring organizations published the enterprise risk management framework. The enterprise risk management framework illustrates the relationships between a company's objectives – its strategic, operations, reporting and compliance goals – and the actions required to achieve those aims, represented by eight components, which are the internal environment, objective setting, event identification, risk assessment, risk response, control activities, information and communication, and monitoring. These relationships can be viewed at four organisational levels which are the entity, division, business and subsidiary levels (Brennan, 2006; Demidenko & McNutt, 2010; COSO, 2004) (see figure 3).

Figure 3: COSO Cube.



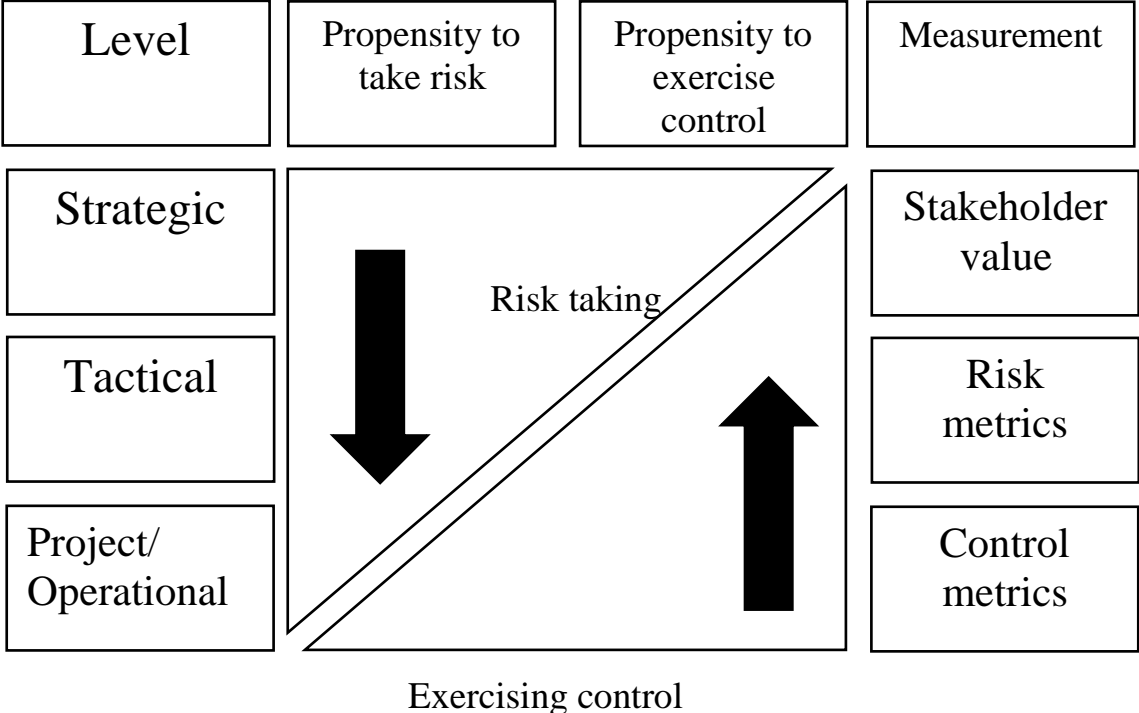
Source: COSO, 2004.

In May 2009, the US senate proposed a legislation named – “the shareholder bill of rights” - that requires public companies to create stand-alone risk committees responsible for establishing and evaluating risk management practices. Moreover, in October 2009, the Federal Reserve proposed guidance that places a responsibility on the board of directors for setting appropriate incentive compensation arrangements and effectively monitoring risk exposures created by these arrangements. The Institute of Risk Management (IRM) published its risk appetite⁹ and tolerances guidance paper. Figure (4) illustrates that there are three levels of risk appetite, which are: strategic, tactical, and project or operational risk. In the strategic level, risk appetite is predominantly about the risks or types of risks that an organization has a comparative advantage in managing. Also, at strategic level, risk appetite will be about deciding from which risks or types of risks the organization needs to protect itself. When it comes to looking for the risk from the perspective of exercising control, the focus here

⁹ Risk appetite can be defined as the amount and type of risk that an organization is willing to take in order to meet their strategic objectives (IRM, 2019).

is more on tactical and project levels. However, to view risk from a risk-taking perspective, the model shows the focus as being skewed to strategic (Whyntie, 2012; IRM, 2019).

Figure 4: IRM Risk Appetite.



Source: The Institute of Risk Management (IRM).

If the company strategy is the responsibility of the board as a whole, it is reasonable that the board should have direct governance oversight of strategic risk management (Whyntie, 2012). Figure (5) demonstrates the strategic view of risk. It incorporates a time element, in that in the long term (around 5 years), the focus is on strategic risk, while the operational management of risk has a shorter-term focus (typically 12 months). The figure also illustrates that the strategic risk is externally focused, but the operational management of risk is more internally focused. Additionally, the information from the two perspectives should be provided to management and board to enable decision making, both visionary and situational (Whyntie, 2012; IRM, 2019).

Figure 5: A Strategic View of Risk.



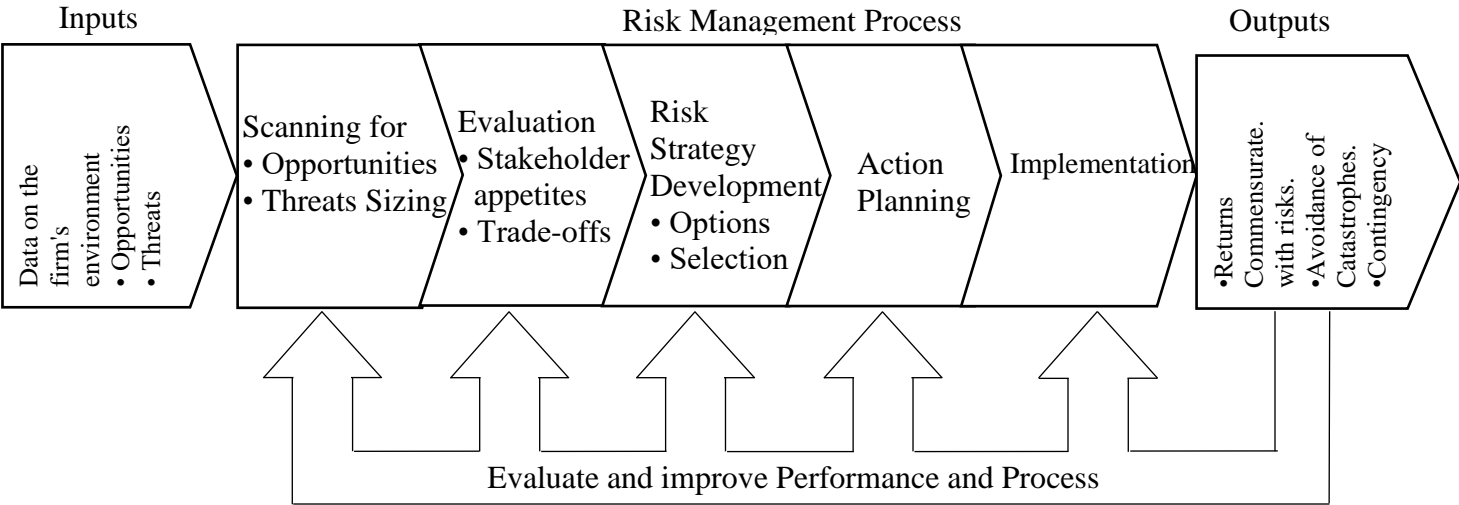
Source: The Institute of Risk Management (IRM).

4.3 Holistic vs Traditional View of Risk

Over the last two decades, pressure has been placed on firms to improve their risk management systems, especially after the financial crisis, and the outlook regarding risk has changed dramatically. Until the mid-1990's, the traditional view of risk was prominent (Arena, et al., 2010). This silo-based approach deals with one type of risk - operational risk - by focusing on hedging against each risk separately (Gordon, et al., 2009). In contrast, the ERM system deals with all types of risk strategically. It is a comprehensive approach that requires a top-down risk assessment that deals with all risk types simultaneously, rather than separately (Paape & Spekle, 2012; McShane, et al., 2011). ERM is a corporate governance mechanism that constrains and coordinates managers' behaviour to create and preserve value for stakeholders (Baxter, et al., 2013). Figure (6) provides more insight into the strategic business process in managing risk. Information is continually gathered on the firm's environment, and then the management evaluates, analyses and prioritizes the dynamic risks facing them. Then, the management takes appropriate measures to

accept, share or reduce risks in accordance with stakeholder's appetite for risks and management principles. Most companies do not have a consistent process to monitor the external environment in which they operate, and as a result, they will be not aware of all risks they face. In the second step, the management scan for opportunities and threats based on the external environment analysis, and the firm strategies, must be re-aligned based on the revision in the environment. Additionally, the process of monitoring, measuring and managing risk needs to be modified based on scanning the environment. Once the opportunities and threats are assessed, it comes to decide what are the firm risk tolerance levels and its goals for risks and returns. Then, the risk vision and strategy need to be developed by management based on the environment and stakeholders risk appetite. The overall strategy for risk management should include the philosophy of risk management and organizational responsibility (Clarke & Varma, 1999).

Figure 6: A Strategic Business Process in Managing Risk.



Source: Clark & Varma, 2012, p.416.

4.4 Benefits of ERM

After the 2008 financial crisis, firms found themselves under pressure to adopt more comprehensive risk management (RM) systems that deal with risks and opportunities more effectively. Many regulatory bodies introduced frameworks for ERM as a system that improves the value of the firm, stakeholder interests and firm

Chapter 4: Enterprise Risk Management (ERM)

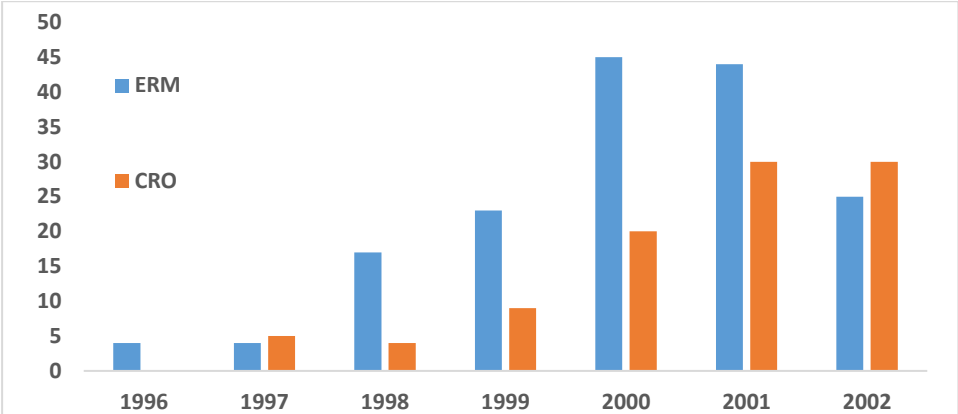
performance (McShane, et al., 2011; Gordon, et al., 2009). Other studies explored the motivations to implement ERM that include financial distress and its explicit and implicit costs, poor earnings performance and the existence of growth opportunities (Khan, et al., 2016). Additionally, others found a decrease in earnings and stock-price volatility, reducing external capital costs, increasing capital efficiency, and creating synergies between different risk management activities (Miccolis & Shah, 2000; Cumming & Hirtle, 2001). Additionally, ERM improves risk management by promoting awareness of all sources of risk, and by aligning strategic and operational decision making across the entity with the company's risk appetite (COSO, 2004; Nocco & Stulz, 2006). To sum up, the overall objectives of ERM are increasing shareholders value, improving capital efficiency through the provision of an objective basis for allocating corporate resources, reducing expenditures, support informed decision-making by exposing areas of high risk, and help build investor confidence.

4.5 Measures of ERM

The literature mentioned many techniques and measures of ERM. Some studies used the survey analysis to capture ERM implementation (Beasley, et al., 2005; Beasley, et al., 2009; Kleffner, et al., 2003). Some other studies used S&P rating as a sign of the level of ERM implementation (Hoyt & Liebenberg, 2011). Whilst there is no conclusive measure of the implementation level of ERM, the literature included some characteristics that may be used as symptoms for ERM implementation level. Examples include firm size, Tobin's Q, and institutional ownership and industry characteristics. In this regard, studies found that the first three examples are positively associated with the ERM implementation level. Moreover, firms audited by one of the big four auditors have an opportunity to implement ERM compared with firms that are not audited by the big four (Beasley, et al., 2005; Beasley, et al., 2009; Ahmad, et al., 2014; Paape & Spekle, 2012; Kleffner, et al., 2003; Razak, et al., 2016; Quon, et al., 2012; Shad & Lai, 2015; Gordon, et al., 2009). Literature argued around the appointment of Chief Risk Officer (CRO) as a signal of ERM implementation by the firm, thus the presence of CRO in the firm is charged with the responsibility of implementing and managing the ERM program (Liebenberg & Hoyt, 2003). In the last two decades, there is an increasing interest in referencing ERM and CRO in academic articles. Figure (7) presents an increase in CROs in the article, in parallel with the increasing interest of ERM for the period between 1996 and 2002. Thus, the number

of articles referencing ERM and CRO, increased from about 5 articles in 1996, to reach around 35 articles in 2002. Which indicates the increased attention to appoint a CRO in the firm when implementing ERM.

Figure 7: Articles Referencing ERM and CROs.



Source: Liebenberg & Hoyt, 2003, p.38.

4.6 Legislative Frameworks of ERM

Many legislative bodies established frameworks for ERM. Examples are standard setting organizations, industry publications, industry associations, consulting firms and rating agencies (Bromiley, et al., 2015). Table (4) illustrates bodies that announced the ERM system, and their definitions and descriptions of the ERM system. Although there are some differences in these definitions, all of them agree that it is a system that reflects positively on firm value and performance, and maximizes stakeholder interests.

Table 4: ERM Definitions and Descriptions.

(AS/NZS 4360 Risk Management Standard, 1995)	Risk management is the culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects.
Arthur Andersen (Described in Deloach and Temple (2000))	ERM is a structured and disciplined approach that aligns strategy, processes, people, technology and knowledge with the purpose of evaluating and managing the uncertainties the enterprise faces as it creates value. It is a truly holistic, integrated, forward looking and process-oriented approach to managing all key business risks and opportunities – not just financial ones – with the intent of maximizing shareholder value for the enterprise as a whole.

Chapter 4: Enterprise Risk Management (ERM)

Tillinghast-towers Perrin (2001)	ERM is generally defined as assessing and addressing risks, from all sources, that represent either material threats to business objectives or opportunities to exploit for competitive advantage
Institute of internal Auditors (IIA 2001)	ERM is a rigorous and coordinated approach to assessing and responding to all risks that affect the achievement of an organization's strategic and financial objectives.
Casualty Actuary Society (CAS 2003a)	ERM is the process by which organizations in all industries assess, control, exploit, finance and monitor risks from all sources for the purpose of increasing the organization's short and long-term value to its stakeholders.
Committee of Sponsoring Organizations (COSO 2004)	ERM is a process, affected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.
S&P (2008)	ERM is an approach to assure the firm is attending to all risks; a set of expectations among management, shareholders, and the board about which risks the firm will and will not take; a set of methods for avoiding situations that might result in losses that would be outside the firm's tolerance; a method to shift focus from "cost/benefit" to "risk/reward"; a way to help fulfil a fundamental responsibility of a company's board and senior management; a toolkit for trimming excess risks and a system for intelligently selecting which risks need trimming; and a language for communicating the firm's efforts to maintain a manageable risk profile.
ISO 31000 (2010)	Risk management is coordinated activities to direct and control an organization with regard to risk.
Risk and Insurance Management Society (RIMS 2011)	ERM is a strategic business discipline that supports the achievement of an organization's objectives by addressing the full spectrum of its risks and managing the combined impact of those risks as an interrelated risk portfolio.

4.7 Theories of ERM

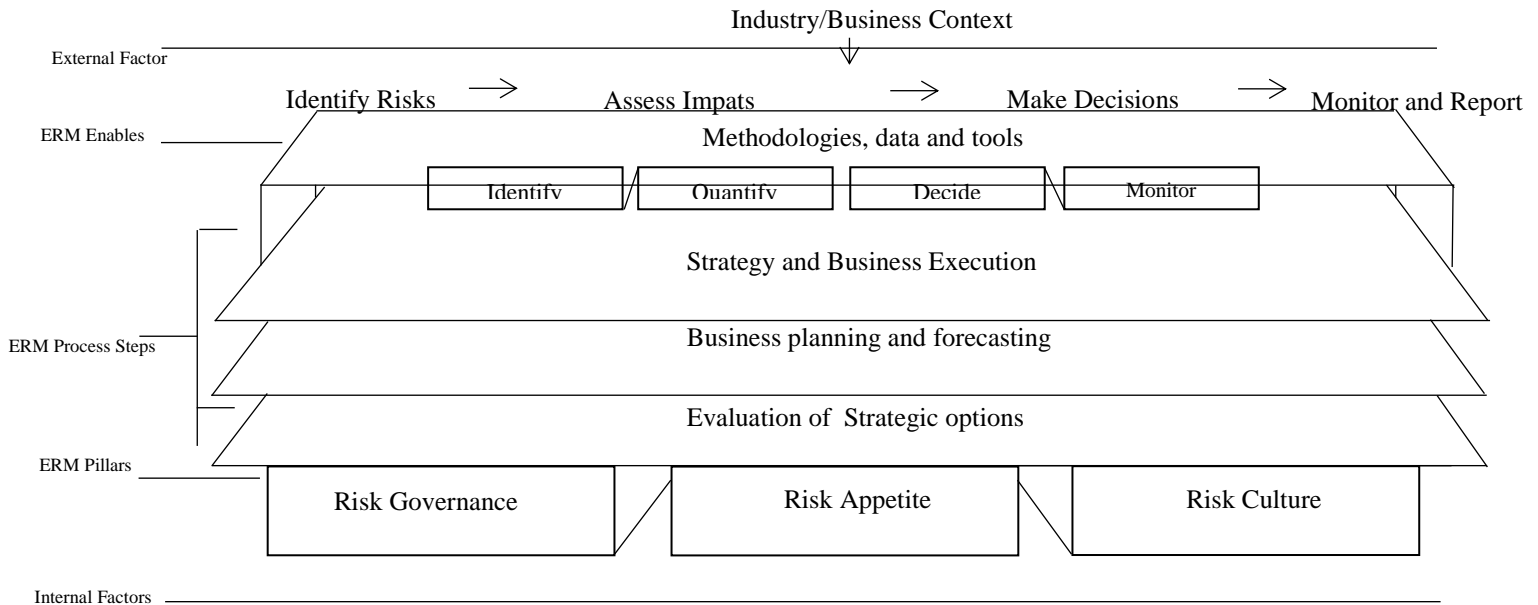
More than one theory underpins ERM. The information asymmetry between investors and managers increases agency costs, especially when firms have information that is not accessible by investors, as this leads to signalling by the firm managers through ERM as an effort to reduce the issue of information asymmetry (Ahmad, et al., 2014). Therefore, ERM is motivated by agency theory (Eisenhardt, 1989; Culpan & Trussel, 2005), and signalling theory (Spence, 1973; Watson, et al.,

2002). In this regard, when a firm manager introduces ERM as a risk system implemented by the firm, this will signal for stakeholders that risks are well managed by the firm and no inaccessible information is announced. Additionally, ERM as a management control system has no universal well known framework to be implemented, and there is no knowledge about the best practice of ERM by the organization, so the optimal framework of ERM is contingent upon external and internal factors or variables, that help the firm to implement the optimal ERM system that achieve its goals of monitoring risks and improve performance. Thus, past literature discussed contingency theory of ERM, and the proper match between ERM and firm performance is contingent upon the surrounding factors of the firm (Gordon et al. 2009; Mikes 2009; Mikes and Kaplan, 2013; Nedaël et al. 2015).

4.8 ERM Pillars

In October, 2017, Protiviti's ERM center of excellence, together with COSO chairman and a member of the COSO advisory council, conducted a discussion of the ERM framework. Three important pillars lay the foundation for how ERM works in enhancing decision making. The organisations should customize these pillars based on its industry, strategy, the core values of its directors and the regulatory environment. As shown in figure (8), the three pillars are: risk governance, risk appetite and risk culture. Risk governance reflects the oversight and accountability for risk issues, from individuals roles and responsibilities to management committee structures and oversight by the board of directors. Risk appetite articulates the risks an organisation is willing to undertake in the pursuit of business objectives. It presents an opportunity for management to clarify to the board. Risk culture provides a source of strength or weakness for the organisation (Protiviti, 2019).

Figure 8: Protiviti's Risk-Informed Approach.



Source: Protiviti's, 2018.

Lundqvist (2014) found four underlying pillars of ERM implementation. Two of the components related to the general environment and control activities of the firm, which may be viewed as 'prerequisites' of ERM implementation. These components are necessary to have well-functioning and well-implemented ERM, but are neither connected directly to risk management activities nor specific to ERM. The third component is truly the ERM identifier. The dimensions that make up this component are characteristics of ERM addressing the organizational and holistic nature of risk management as ERM prescribes: formal written statement of risk appetite, correlating and determining portfolio effects, having a senior manager assigned the responsibility of overseeing risk and risk management, and a formal risk management report submitted to board level. The fourth component identifies efforts of the firm to manage certain types of risk: financial, compliance, technology, economical and reputation. This pillar is an indicator of risk management implementation, but it says nothing about the organization of the management system.

4.9 Chapter Summary

This chapter discussed the ERM system in detail. To sum up, ERM is a more comprehensive system than the traditional one, as it deals strategically with all types of risks as a portfolio to minimise risk. Empirical research has shown its benefits in improving firm value and performance, and stakeholder interests. Others argued that ERM is a motivation for the firms that are under financial distress and poor earnings performance. There is, however, no conclusive measure of ERM, although many techniques and symptoms have been used by research and rating agencies to capture its level of implementation. Finally, the ERM system is motivated by agency theory, signalling theory, and contingency theory. The next chapter discusses in detail the theories around the research objective and motivated by this study, which are: agency theory, signalling theory, and contingency theory.

CHAPTER 5: THEORETICAL FRAMEWORK

"In order to be irreplaceable, one must always be different". Coco Chanel

5.1 Introduction

This study aims to investigate the role of enterprise risk management implementation level (ERMIL), with regard to the economic consequences of IFRS adoption, by examining the ERM indirect effect on firm incentives. This chapter discusses the related theories, and how this research is motivated by these theories. The remainder of this chapter is divided as follows: Section 5.2 provides a theoretical background. Section 5.3 discusses agency theory. Section 5.4 discusses signaling theory. Section 5.5 discusses contingency theory. Finally the chapter summary in section 5.6.

5.2 Background

As a social science, accounting includes theories that explain how accounting works in practice. There are many approaches in the development of accounting theory. Of which the most common are deductive, inductive, sociological and economic approaches, including positive and normative accounting theories (Deegan & Unerman, 2011; Watts & Zimmerman, 1986).

There are three perspectives on how accounting theories should be developed: explain, predict and prescribe (Deegan & Unerman, 2011). These perspectives fall within two main approaches in developing the accounting theory, which are the deductive and inductive approaches. In the deductive approach, the researcher reaches his/her theory from premises that are not empirically tested, and then the theory is verified after examining the reality. There is no specific design and the theory is developed based on the researcher view and logic, to prescribe the best practice for a phenomenon. The best example of this approach is the continuously contemporary accounting of Raymond Chambers, to prescribe the most useful information about company assets to be used for decision making, which is the company current cash equivalent. Thus, assets must be valued based on their net market value. Another contemporary example is the IFRS conceptual framework. The inductive approach depends on observations and collecting data, to reach a theory. After testing the hypothesis, the results are formulated, and the theory is developed. It supports,

explains and predicts perspectives, and the best practice is the research results. The best example of the inductive approach is the positive accounting theory by Watts & Zimmerman, which explains and predicts why managers or accountants elect to adopt particular accounting methods rather than others (Deegan & Unerman, 2011).

In this study, the inductive approach is suitable based on its objectives. The inductive approach begins with a practical problem and hypothesis, to be tested in order to support the theory. For this study, the best theories that underpin the research problem, are agency theory and signalling theory, which are discussed next.

5.3 Agency Theory

Economists explored incentive problems that arise during decision making by managers (Fama, 1980). Agency cost has been used by scholars in accounting (Demski & Feltham, 1978), economics (Spence & Zeckhauser, 1971), marketing (Basu, et al., 1985), organisational behaviour (Eisenhardt, 1985) and sociology (White, 1985). It also applied to organisational phenomena such as compensation (e.g., Conlon and Parks 1990), acquisition and diversification strategies (e.g., Amihud and Lev 1981), board relationships (e.g., Fama and Jensen 1983), ownership and financing structures (e.g., Agrawal and Mandelker 1987), and innovation (e.g., Bolton 1993). The origin of this theory goes back to the 1960's, when the risk sharing problem between groups and individuals was introduced. This problem arises between cooperative parties when they have different attitudes toward risk. The concept was then broadened to be called the agency problem, which occurs when cooperative parties have different goals in which one party (principal) delegates work to another (agent) (Eisenhardt, 1989). The basic unit of analysis in agency theory, is the contract that covers the relationship between the principal and the agent, and the focus here is to determine the most efficient contract covering this relationship, given assumptions about people (e.g., self-interest, risk aversion), organisations (e.g., goal conflict among members), and information (e.g., information is a commodity which can be purchased). This raises the question if the behaviour-oriented contract (e.g., salaries) is more efficient than outcome-oriented contract (e.g., commissions) (Eisenhardt, 1989) (see table 5).

Table 5: Agency Theory Overview.

Key Idea	Principal-agent relationship should reflect efficient organization of information and risk-bearing costs.
Unit of Analysis	Contract between principal and agent.
Human Assumptions	Self-interest bounded rationality risk aversion.
Organizational Assumptions	Partial goal conflict among participants efficiency, as the effectiveness criterion information asymmetry between principal and agent.
Information Assumption	Information as a purchasable commodity
Contracting Problems	Agency (moral hazard and adverse selection).
Problem Domain	Relationships in which the principal and agent have partly differing goals and risk preferences.

Source: Eisenhardt, 1989, p.59.

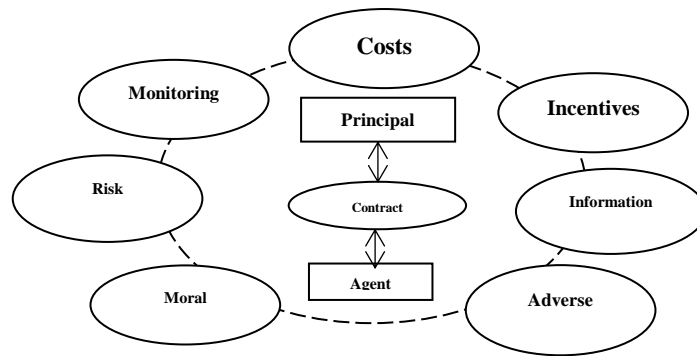
There are two main assumptions of agency theory: (1) the goals of the principal and the agent conflict, and (2) it is difficult and expensive for the principal to verify what the agent is doing (Culpan & Trussel, 2005). Agency theory focuses more on motivating managers who control but do not own the firm, and determining the most efficient contract governing the relationship between principal and agent (Fama, 1980; Eisenhardt, 1985). Agency costs arises from many sources. Most common sources are adverse selection, specifying and discerning preferences, providing incentives, stealing, shirking, self-regulation, moral hazard, bonding and insurance (Shapiro, 2005). In agency theory terms, when the chief executive officer holds the dual role of chair, then the interests of the owners will be sacrificed to the degree in favour of management which results in agency loss (Donaldson & Davis, 1991). Furthermore, agency losses are the extent to which returns to the residual claimants, the owners, fall below what they would be if the principals, the owners, exercised direct control of the corporation (Jensen & Meckling, 1979).

Agency theory developed along two streams: positivist and principal-agent (Jensen, 1983). The two lines share in the unit of analysis which is the contract, assumptions, people, organisations, and information. But the main differences between the two streams are the mathematical rigor, the dependent variables and the style. In positivist agency theory, the focus is on identifying situations in which the principal and the agent are likely to have conflicting goals, and then describing the governance mechanisms that limit the agent's self-serving behaviour. Also, it is less

mathematical than principal-agent theory (Eisenhardt, 1989). Additionally, it focusses on the special case of the principal-agent relationship between owners and managers of public corporations (Berle & Means, 1932). Positivist agency theory describes the governance mechanisms that solve the agency problem, and two propositions capture the governance mechanisms, which are: the outcome-based contracts and the information systems (Eisenhardt, 1989). In contrast, principal-agent theory has a broader focus and greater interest in general, and it includes more testable implications. It indicates which contract is the most efficient under varying levels of outcome uncertainty, risk, and information (Eisenhardt, 1989).

A different issue is involved in agency theory. Figure (9) illustrates those issues which include the moral hazard, risk, monitoring, costs, incentives, information asymmetry, adverse selection and contract. The moral hazard relates to the lack of effort in carrying out the delegated tasks, and the fact that it is difficult for the principal to assess the effort that the agent actually used. The risk issue refers to the different uncertainties that affect the outcome of the relationship. In the monitoring issue, the principal can counteract the moral hazard problem by monitoring the agent's actions. The costs problem occurs because both parties incur various types of costs that depend on the outcome of the relationship, such as, acquiring information, monitoring, and the administration of the contract. The incentives issue refers to the actions made by the principal, which motivate and influence the agent also incentives may be positive or negative. Information asymmetry problems arise because the two parties have different information to make an assessment on the uncertainties. The adverse selection problem refers to the agent misrepresenting skills to perform the tasks, and the principal being unable to verify this before hiring the agent. Finally, the contract between the agent and principal that specifies what, when and how the work must be carried out, also includes incentives and penalties for the agent (Murthy & Jack, 2014).

Figure 9: Issues in Agency Theory.



Source: Murthy & Jack, 2014, p.344.

In assessing the theory, there is no general agreement as whether the strength of the theory depends on how plausible or interesting it is (Weick, 1989), or how it provides explanation or prediction to the real world (Bacharach, 1989). As well as a neutral position, it could be argued that a good theory is a theory that achieves its purpose. The agency theory can cause attention to be focused on the productivity effects of opportunistic behaviour, by offering alternative explanations for lower levels of performance, and by accepting opportunism as possible explanation for lower performance, the theoretical perspective for examining issues like accountability, efficiency, effectiveness, performance, and quality assessment, both theoretically and empirically (Kivisto, 2007). Additionally, agency theory allows for categorisation of funding methods, performance measurement instruments, and other monitoring and assessment practices. The importance of this categorisation is that it is able to create conceptual links between different governance procedures and the conditions that cause agency problem. And this insight allows more systematic and theoretical analysis of the effects of particular governance methods (Kivisto, 2008). In discussing weaknesses of agency theory, we find some criticism. The theory faced criticism because of the behavioural assumptions it makes concerning human motivation and behaviour, thus, the theory presents too narrow a model of human motivation, and it makes unnecessary negative evaluations about people (Kivisto, 2008). Additionally, it ignores a wide range of human motives, including trust, respect and intrinsic motivation of an inherently satisfying task. Also, agency theory fails to explain the principal's losses by any factor other than the agent opportunism. Other than that, it examines the relationship between the principal and the agent without questioning the

legitimacy of principal's goals. Finally, it examines only one of the many agency relationships at a time, and it gives no suggestions about how to proportionate this relationship to other possible agency relationship (Kivisto, 2008).

This study is motivated by agency theory (Culpan & Trussel, 2005; Fama, 1980; Hill & Jones, 1992), which explains the relationship between the principal (stockholder) and the agent (manager). The theory states that there is a conflict of goals between agent and manager. However, managers' mandate is to meet the best interest of principal. The theory also assumes that it is difficult and expensive for the principal to verify what the agent is doing (Culpan & Trussel, 2005; Eisenhardt, 1989). The contractual relationship provides appropriate incentives for the agent to maximize the principal's welfare given that uncertainty and imperfect monitoring exist (Jensen & Meckling, 1976). Moreover, the theory promotes the selection of appropriate governance mechanisms between principals and agents, that ensure efficient alignment between their interests, which will minimize agency costs (Rashid, 2014; Culpan & Trussel, 2005). Empirical evidence has shown that the capital market effects around mandatory IFRS adoption, are a function of reporting incentives in the firm, and the legal system in the country (Daske, et al., 2008; Hail & Leuz, 2007). Therefore, managers may act against the interests of stakeholders by not being transparent in their disclosures. The transparency problem results in an increase in information asymmetry, risk estimation, and risk sharing problem. This increases the capital cost and agency costs between managers and stockholders (Hail & Leuz, 2007; Glosten & Milgrom, 1985; Lambert, et al., 2007; Merton, 1987; Ahmad, et al., 2014; Deboskey & Mogharebi, 2013). The disclosure transparency problem requires actions and selection of appropriate governance mechanisms, potentially through ERM implementation, by management, to express its incentives and minimise agency costs.

5.4 Signalling Theory

Signalling theory's birth can be traced to Spence (1973) in his seminal work on labour economics, where he introduced information asymmetries into economic models of decision-making (Bergh, et al., 2014). Spence illustrated two types of signalling mechanisms: the contingent contracts and the exogenously costly signals. The first type involves a set of options for the seller that are created by virtue of the buyer's subsequent ability to observe the product quality directly, and to transact with the seller at that point. The second type involves leaving open the question of how the

Chapter 5: Theoretical Framework

signal works, in which the signal is engaged with the seller that has a cost that varies with regards to product quality, and is independent from the response of the buyer to the activity (Spence, 1973). This theory is becoming increasingly popular since it focuses on the core problems facing decision makers, which helps them use signals to reduce uncertainty and information asymmetry related to the users of the accounting information, especially for investors to make their decisions (Bergh, et al., 2014; Spence, 1973; Spence, 1974; Spence, 2002).

Furthermore, the users of financial reports communicate the level of unobservable elements in transactions, by providing them with observable signals that reduce asymmetries for their decisions (Kirmani & Rao, 2000). Also, signalling theory is useful for describing behaviour when two parties (individuals or organisations) have access to different information, thus, one party (the sender) must choose whether and how to communicate or signal that information, and the other party (the receiver) must choose how to interpret the signal (Connelly, et al., 2011). Thus, when individuals do not have complete information or are uncertain of the position they should take on a matter, they draw inferences based on cues from the available information about the firm (Gregory, et al., 2013). Similarly, Fombrun and Shanley (1990) argued that firm reputations may have other favourable consequences. Thus, by signalling product quality to consumers, firms may be able to charge premium prices, attract better applicants, enhance their access to capital markets and attract investors (Shieh, 1993). So, signalling theory seeks to explain how individuals are able to do so and optimises solutions for both signallers and receivers (Bergh, et al., 2014). Many studies have discussed the information content of dividend changes, as a signal for users of financial reports. For example, Bhattacharya (1979) and Miller and Rock (1985), found that signalling theory states that changes in dividends policy convey information about changes in future cash flows, and the higher the asymmetric information level, the higher the sensitivity of the dividend to future prospects of the firm (Dionne & Ouederni, 2011).

Signalling theory has got increasing interest in literature in recent years. Management scholars adopt signalling theory to help explain the influence of information asymmetry in a wide array of research contexts (Connelly, et al., 2011). In the corporate governance area, for example, a recent study shows how CEOs signal the unobservable quality of their firms to potential investors, via the observable quality of their financial statements (Zhang & Wiersema, 2009). In a wide range of literature,

Chapter 5: Theoretical Framework

signalling theory has been used to explain how firms use heterogeneous boards to communicate adherence to social values to a range of organisational stakeholders (Miller & Triana, 2009). Furthermore, in e-commerce, signalling is displaying of certain website features that convey information from sellers to buyers. Also, signals convey information about seller characteristics, and buyers examine them to evaluate the credibility and validity of a seller's qualities. It explains the relationship between signals and qualities, showing why some signals are reliable and others are not, and the costs of deceptively fabricating a signal must surpass the benefits of falsifying (Mavlanova, et al., 2012). In an e-store, the quality of the product is characterised by a time lag between product selection and the purchase and delivery. On the other hand, in the traditional stores, the quality of the product is observable during the selection process (Mavlanova, et al., 2012). It also applies in the entrepreneurship literature to examine the signalling value of board characteristics (Certo, 2003). Much of the past literature discussed signalling theory to a range of organizational concerns. Connelly et. al., (2011) provide a review of the management scholars that applied signalling theory in a wide range of organisational concerns. Table (6) summarises this literature by listing the signaller, the signal, and the receiver that are the focus of each study, and also the contribution of each study.

Chapter 5: Theoretical Framework

Table 6: Review of Research Used Signalling Theory.

Management Research Using Signalling Theory, 2000-2009										
Strategy Studies										
Key Signalling Theory Concepts Addressed	Study Integrates Resource-Based View by Discussing Signal Value	Signaller	Signal	Receiver	Year	Author(s) Journal	Year	Author(s) Journal	Year	Author(s) Journal
· Signals have Strength, Weak or Strong Firms Underinvest in Signalling when Differentiation is High	· More Signals Increase Signalling Effectiveness Reduces Search Costs . There are Penalty	· Signals have Strength Easily Fooled by Weak Signals . Signals must be Costly to be Credible	· Firms Rely on Signals to Avoid Hazards, Avoiding the Adverse Selection Problem	· Signal Strength is Conditional on the Signals of Competitors . Signalling Reduces Search Costs	· Costly, Same-Domain Signals are Inherently Credible . Study Integrates Signalling Theory with Real-Options Reasoning	· Signalling Environment Plays a Key Role in Determining Which Signal to Use . Firms that Rely on Information	· One Signal can have Multiple Meanings . Signals have Different Strengths . Signal Strength is Moderated by the	· Signals are Qualitative, Requiring Interpretation . Signals can be Unintentional and Negative	· Firms have Acquisition Targets	· Firms Rely on Reputation
Stakeholders	Consumers	Consumers	Investors	Acquiring	Other Firms	Competitors	Capital and Labor Markets	Investors	Board of Directors	
Fortune Reputation Rank	Product Aesthetics	Advertising and Branding	Firm Names	Reputation	Structural Embeddedness	Number of Patents in an Industry	Strategic Flexibility and Endowments	Alliance Announcement	Consultant Surveys and Qualitative Market Outcomes	
Firms	Movie Studios	Brand Managers	Internet Firms	Acquisition Targets	Firms	Firms	Knowledge-Based Firms	Firms	Top Managers	
Deephouse Journal of Management	Lampel & Shamist Journal of Management	Chung & Kallins Strategic Management Journal	Lee Strategic Management Journal	Coff Journal of Management	Karamanos Journal of Management Studies	McGrath & Nerkar Strategic Management Journal	Nodor & Levitas Journal of Management	Park & Mezias Strategic Management Journal	Perkins & Hendry Journal of Management Studies	
2000	2000	2001	2001	2002	2003	2004	2004	2005	2005	

Chapter 5: Theoretical Framework

	Signal Credibility Changes Over Time	Signals Moral Hazards for Receivers	. Signal Strength is Moderated by Receiver Attention to the Signaller and the Signalling Environment . Signals have Different	. Signal Frequency Improves the Signalling Process, Especially in Dynamic Environment . Signal Credibility	. Uncertainty Motivates the Receiver . Study Integrates Signalling Theory with Screening Theory . Signals can	. One Signal can Send Multiple Messages . Greater Signal Cost is an Indicator of Greater Signal Reliability	. Costly Signals are more Credible, or Valid . Receivers are more Likely to Attend to Costly Signals	. Study Integrates Signalling Theory with the Resource-Based View of the Firm . Signals may be Unintentional	. Receivers Become more Attuned to Signals as Information Asymmetry and Uncertainty Increase . Signals have	. Good Signals are Observable, Irreversible, Governed, and Credible . Signal Strength is Moderated by the Signalling	. Different Signals may be Used in Patents to Improve Credibility . Signals may Conflict	. Signals can be Positive or Negative . Study Integrates Signalling Theory with Social Cognition Theory . Different	
Labor Market	Potential Investors	Potential Investors	Potential Investors	Potential Investors	Potential Investors	Vcs	Potential Investors	Investment Bankers	Potential Investors	Potential Investors	Potential Investors	Potential Investors	Organizational Stakeholders
Venture Capital (VC) Financing Events	Approaches Angel Investors	Endorsement Relationships and Alliance	Private Equity Placements	Corporate Governance Characteristics	Founder Ownership	Top Management Team (TMT)	Various Firm Characteristics Listed in Prospectus	TMT Composition	Private Equity	Association Membership Investments	Reputational Characteristics		
Young Firms	Entrepreneurs	Young Firms	Young Firms	Young Internet Firms	Young Firms	IPO Firms	IPO Firms	IPO Firms	Young Firms	Private Equity Operators	Young Firms		
Davila, Foster, & Gupta Journal of Business Venturing	Elitzur & Gavious Journal of Business Venturing	Gulati & Higgins Strategic Management Journal	Jenny & Folta Journal of Business Venturing	Sanders & Bovvie Strategic Management Journal	Bussnitz, Fiet, & Moesel Entrepreneurship Theory and Practice	Cohen & Dean Strategic Management Journal	Daily, Certo, & Dalton Journal of Business Venturing	Higgins & Gulati Strategic Management Journal	Jenny & Folta Journal of Business Venturing	Balboa & Marti Journal of Business Venturing	Fischer & Reuber Entrepreneurship Theory and Practice		
2003	2003	2003	2003	2004	2005	2005	2005	2006	2006	2007	2007		

Chapter 5: Theoretical Framework

Potential Investors	Potential Investors	Potential Investors	Potential Investors	Potential Investors	Potential Investors	Potential Investors	Potential Investors	Potential Investors	Potential Investors		
Lockup Period	Geographic Scope	Insider Ownership	TMT	Retained Ownership	Earnings Claims	Hiring Process	Reservation Price	Recruiter Behaviour and Activities	Political Behaviour	Various Organizational Characteristics	Product and Seller Quality
IPO Firms	Foreign Firms	IPO Firms	IPO Firms	IPO Firms	Franchisors	Police Department	Sellers	Recruiters	Employees	Hiring Organizations	Seller
Arthur, Basenitz, Hockisson, & Johnson	Bell, Moore, & al-Shammari	Jain, Jayaraman & Kini	Zimmerman	Bruton, Chahine, & Filatov	Michael	Ryan, Saeco, McFarland, & Kriska	Shrivastava	Einhart & Ziegert	Hochwarter, Ferris, Zinko, Arnell, & James	Higginhouse, Thorburn, & Little	Mavlanova, Benbunan-Fich & Koufaris
Journal of Business Venturing	Entrepreneurship Theory and Practice	Journal of Business Venturing	Entrepreneurship Theory and Practice	Entrepreneurship Theory and Practice	Managerial and Economics	Journal of Applied Psychology	Organizational Behaviour & Human Decision Processes	Journal of Management	Journal of Applied Psychology	Organizational Behaviour and Human Decision Processes	Information and Management
2008	2008	2008	2008	2009	2009	2000	2001	2005	2007	2007	2012
Organizational Behaviour and Human Resource Management Studies											
Study Integrates Signalling Theory with Bonding and Trust	Study Integrates Signalling Theory with Institutional Theory and Agency Theory	Study Integrates Signalling Theory with Agency Theory	Senders only Relevant and Important Information in their Signals	Study Integrates Signalling Theory with Agency Theory	Article Challenges Traditional Economic Models that Suggest Providers will not Transact if	Unintended Signals may Communicate Negative Information to the Receiver	Signal have Credibility Based on their Cost	Study Integrates Signalling Theory with other Theories of Organizational Attraction	Signals may be Manipulated by the Signaller to Achieve Greater or Lesser Fit	Signals have both an Instrumental Inference and a Symbolic Inference	Used Three Dimensional Framework to Classify Website Signals
Each Other may Substitute for	One Signal can Send Multiple Messages	Signals can be Positive or Negative	Firms Send a	Different Characteristics Require Different Types of Signals	if	Study Integrates Signalling with	Senders with Feedback with Countersignals	Lesser Fit	Social Identity Moderates the Relationship	Low-Quality Sellers were Likely to Avoid	

Chapter 5: Theoretical Framework

2016	Merkhanova, Benbunan-Fich & Lang Decision Support Systems	Online Sellers	External and Internal Website Signals	Buyer	Buyer Notice these Signals: External and Internal Signals have Significant Effect on Buyer	Changes in the Types of Materials Used for Signalling by Palaeolithic Humans.
Other Studies						
2014	Kuhn Biol Theory	Media	Ochre, Pigments and Beads	Society		

Source: Partly Adapted from Connelly et. Al., 2011.

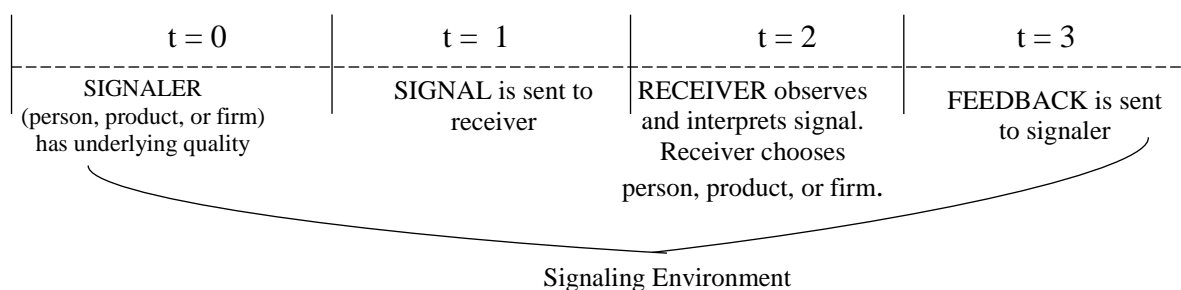
As mentioned by Connelly et al, 2011, Kirmani and Rao (2000) provide an example of how signalling theory works. They distinguish between high quality firms and low-quality firms also, the firms in this example know their own true quality, but outsiders do not. Consequently, each firm has its opportunity to signal its true quality to outsiders or not. Therefore, when high quality firms signal, they receive pay-off A, and when they do not signal, they receive pay-off B. On the other hand, when low quality firms signal, they receive pay-off C, and pay-off D, when they do not signal. In this case, signalling theory represents a viable strategy for high-quality firms when $A > B$ and $D > C$. As a result, high-quality firms are motivated to signal, and low-quality firms are motivated to not signal, which results in a separating equilibrium. In such cases, outsiders are able to distinguish between high-quality and low-quality firms. In the opposite, when the two types of firm's signal, a pooling equilibrium results and outsiders are not able to distinguish between the two types of firms. In financial economics, there have been several examples to illustrate this relationship. For example, firm's debt and dividends represent signals of firm quality. So according to this model, only high-quality firms have the ability to make interest and dividend payments over the long term, but low-quality firms will not be able to sustain such payments. Consequently, signals influence outsiders' perceptions of the firm quality.

Signalling environment includes two parties: the signaller and the receiver, as well as the signal itself, and also the feedback to the signaller (Connelly, et al., 2011). Figure (10) demonstrates signalling theory's primary elements in the form of a timeline.

The signallers in figure (10) are the insiders (e.g., executives or managers) who obtain information about individuals, product or organization, which are not available to outsiders. Insiders obtain information, some of which is positive and some of which is negative, that is useful for outsiders. Also, this information may be the results of

early stage research and developments, or later stage news (e.g., sales reports). Additionally, insiders may get information about other aspects such as pending lawsuits or union negotiations. As a result, this information provides the insiders with a perspective regarding the underlying quality of some aspects of the individual, product, or organization. The second part in the figure is the signal itself, which could be positive or negative information, and they must decide whether to communicate this information with outsiders. Signalling theory focuses mainly on the deliberate communication of positive information, in an effort to convey positive organizational attributes. For instant, issuing new shares of a firm is considered as a negative signal because executives may issue equity when they believe their company's stock price is overvalued (Myers & Majluf, 1984). Thus, insiders do not send these negative signals to outsiders with a view toward reducing asymmetry, but it is an unintended consequence of the insider's action. The third element of the signalling timeline is the receiver. The receiver is an outsider who lacks information about the organization in question, but would like to receive this information.

Figure 10: Signalling Timeline.



Note: t = time.

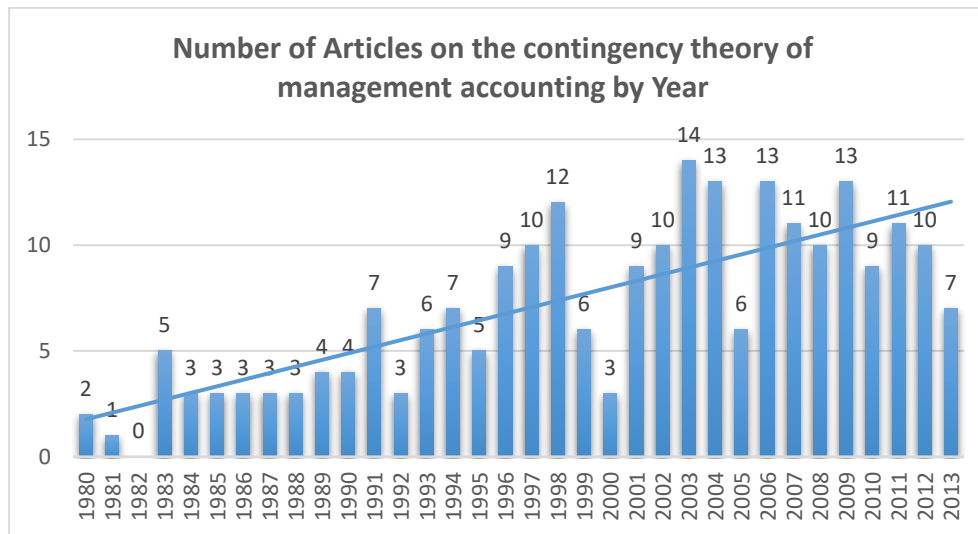
Source: Connelly et, al., 2011, P: 44.

Considering this research, signalling theory explains the act of selecting appropriate corporate governance mechanisms through ERM implementation, as a signal of a comprehensive risk management strategy that mitigates risks for investors. Thus, ERM helps build investor confidence by establishing a process which can stabilize financial results and demonstrate to all stakeholders that the organization practices sound risk stewardship. Which as a result, reduces uncertainty and

asymmetries for investors, and hence, reduces agency costs. This explains why managers may signal their adoption of the ERM system to users.

5.5 Contingency theory

The origin of contingency theory goes back to the Austrian psychologist, Fred Edward Fiedler, in 1964. The idea of contingency theory of management accounting began to develop in the 1970's, in an attempt to explain the varieties of management accounting practices (Otley, 2016). In explaining the historical development of the theory in regard to the development of management accounting, Otley (2016) demonstrates that the management accounting development began with the introduction of activity-based costing (ABC) in the early 1980's, and the focus was to generate information for decision-making rather than control. However, the challenges of accounting control had become dominant in the early 1990's by adopting the most widely technique in the modern organizations, which is the balanced scorecard (BSC). BSC combined both financial and non-financial performance measures into a single framework, and the management control scope began to include both strategic and operational control. Additionally, there was the establishment of ERM system in the early 1990's as a result of crisis, collapse of large banks, and financial losses. In particular, the increasing changes to businesses environments, competition both locally and globally, lower trade barriers, consolidations, currency rate sensitivity, and technological development, has caused a greater degree of uncertainty and risks, and this has drawn the view for more control predictive models such as ERM. Along with those changes, contingency theory has also begun to change from the idea that no universal solution to the problems of control was feasible to be considered in a much more dynamic context than previously, and the need to use more process-based models which examine the implementation of modified forms of management and control (Otley, 2016). The topic of contingency theory has broadened over the last three decades, and there are an increasing number of articles on the contingency theory of management accounting. Figure (11) illustrates the number of articles that discussed contingency theory from 1981 to 2013. The figure shows that the total number of articles is 236, and despite the drop in 2000 and 2001, it indicates a steadily growing amount of work in this topic over the period (Otley, 2016).

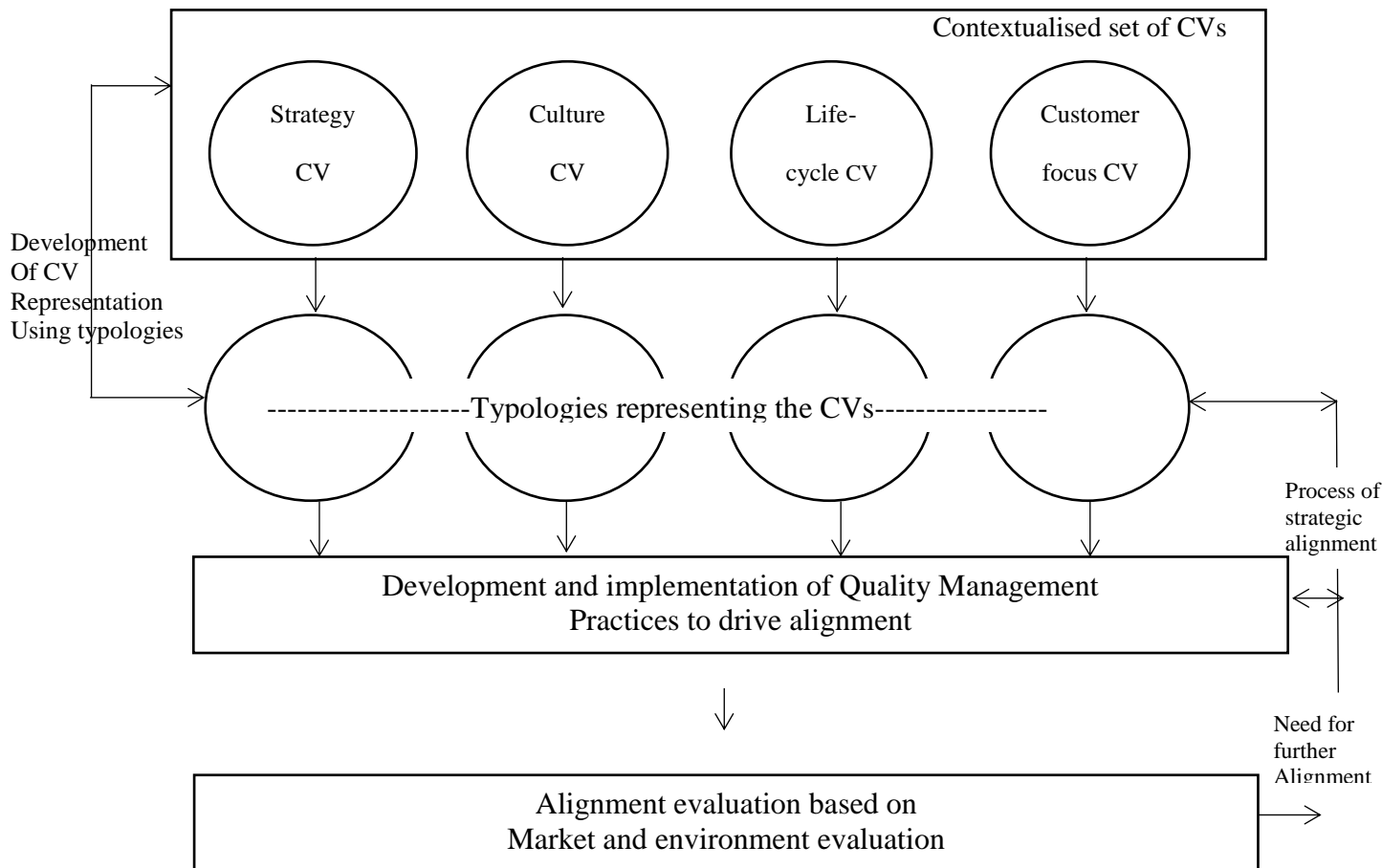
Figure 11: Contingency Theory Articles.

Source: Otley, D, 2016, P:48.

Contingency theories are a class of behavioural theory that contend that there is no one best way of organising/leading, and that an organisational/leadership style that is effective in some situations may not be successful in others. In other words, the optimal organisation/leadership style is contingent upon various internal and external constraints. The constraints may include the size of the organisation, how it adapts to its environment, differences among resources and operations activities, managerial assumptions, strategies, technologies, competition, culture, information systems, product life-cycle stage, and psychological variables (Hersey, et al., 2019; Otley, 2016). In their research, McAdam et al. (2019) identify a set of contingency variables (CVs) that are appropriate to the context of the phenomena being explored. As illustrated in figure (12), each CV is represented by an appropriate typology, and the changes to the CVs as represented by these typologies require the need for dynamic alignment using orchestrating quality management practices. Also, bundles of quality practices should be used in the alignment process. In managerial accounting, contingency theory has been used to describe how the effectiveness and design of organizations' control systems rely on such contextual variables as organisational size, structure, strategy, environment, culture and technology (see for example; Cadez and Guilding, 2008; Luft and Shields, 2003). Additionally, it assumes that there is no one universally appropriate control system that is applicable to all corporations in all

circumstances (Otley, 1980), and based on that, the good fit between an organisation's systems and circumstances should yield better performance (Chenhall & Morris, 1986).

Figure 12: Initial Conceptual Framework (Contingency Variables).

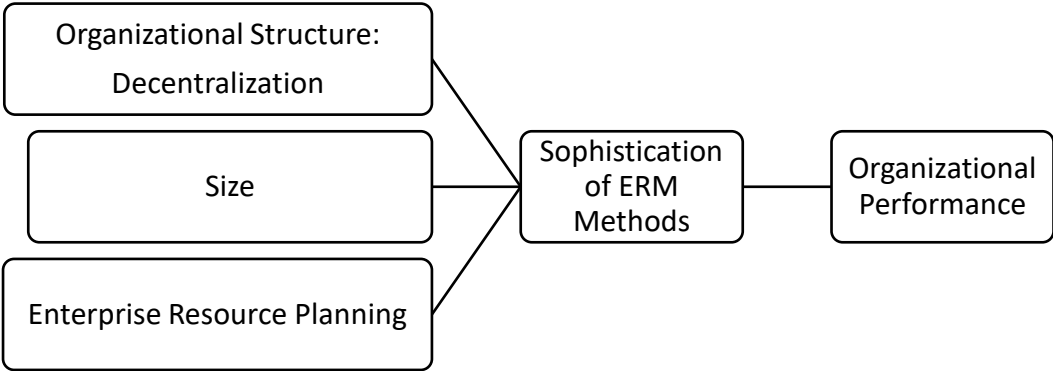


Source: McAdam et. al., 2019, p: 196.

Despite the new trends of ERM system in the research, that illustrate that an organization's ERM system is part of its management control system, few studies addressed the contingency theory of ERM (see for example, Mikes, 2009; Gordon et al. 2009; Mikes and Kaplan, 2013). According to Gordon et al. (2009), the relationship between ERM and firm performance, is contingent upon the appropriate match between ERM and factors affecting the firm. They addressed five factors affecting the firm which are: environmental uncertainty, industry competition, firm size, firm complexity, and board of directors monitoring. Also, they found that firms should consider implementing ERM system in conjunction with the contextual variables

around the firm. In other words, a useful contingency theory of ERM should have a hypothesis about the links between the firms' specific factors and the design of its ERM system, and the suitable fit between those factors surrounding the firm and ERM system (Mikes & Kaplan, 2013). Also, since different ERM methods are applied in different circumstances (COSO, 2004), so studying different ERM methods in line with different circumstances help firms manage and assess risks effectively, and contribute more in performance (Nedael, et al., 2015). According to Nedael et al. (2015), contingency theory in ERM addresses a suitable match between three contingency variables and the ERM methods. Figure (13) illustrates those contingency variables which are: the organizational structure (decentralization), size and enterprise resource planning, and their links with ERM methods. As mentioned by Nedael et al. (2015), decentralization refers to the allocation of responsibility and authority to the managers, and a higher level of decentralization leads to a greater number of requests for complex needs to coordinate and control within the organization (see for example; Chenhall & Morris, 1986). Additionally, the size can affect the management control systems that are cited by the firm, and more sophisticated control system methods are related to the need for managing large amounts of data and access to the resources required to implement systems (see for example; Abdel-Kader & Luther, 2008), except for that size found to be associated positively with the use of ERM systems (Hoyt & Liebenberg, 2011; Pagach & Warr, 2010). The third contingent variable in the framework, is the information technology, and it was found to affect the design of the control systems in the organization.

Figure 13: Contingency Variables and ERM.



Source: Nedael et al., 2015, p:57.

Chapter 5: Theoretical Framework

This study is motivated by contingency theory. Thus, it investigates the role of ERM in the association between IFRS adoption and cost of equity capital, and since ERM as a management control system has no universal well known framework to be implemented, and there is no knowledge about the best practice of ERM by the organization, so the optimal framework of ERM is contingent upon external and internal factors, or variables that help the firm to implement the optimal ERM system that achieve its goals of monitoring risks and improve performance especially since some past literature addressed contingency theory of ERM, and the proper match between ERM and firm performance is contingent upon the surrounding factors of the firm (Gordon et al. 2009; Mikes 2009; Mikes and Kaplan, 2013; Nedael et al. 2015).

5.6 Chapter Summary

This chapter discussed in detail the theories related to the research problem and objective. To sum up, this research is motivated by many theories. Thus, the disclosure transparency problem requires actions and selection of appropriate governance mechanisms, potentially through ERM implementation by management, to express its incentives and minimise the contractual costs between managers and investors (agency costs). This is done by signalling of a comprehensive risk management strategy that mitigates risks for investors, and helps build investor confidence and reduce uncertainty and asymmetries for investors. Additionally, ERM as a managerial control system does not have a universal or specific framework for its implementation, and no consensus of the best practice of its implementation. This suggests that the optimal framework of ERM is contingent upon external and internal factors to add value for the firm. The next chapter presents the research methods for the study, including the research hypothesis, sample data, research variables and models of the study.

CHAPTER 6: RESEARCH METHOD

6.1 Introduction

This study aims to investigate the role of enterprise risk management implementation level (ERMIL), with regard to the economic consequences of IFRS adoption, by examining the ERM indirect effect on firm incentives. This chapter discusses the research methods and procedures that were utilised to address the research questions. It presents the research design, research hypothesis, data collection, research variables and the study models. Outlining the proposed theoretical framework, as mentioned in the previous chapter, assists in making the necessary methodological choices, and constructing the appropriate research design. This chapter is organised as follows: Section 5.2 includes the research design. The research hypothesis is discussed in Section 5.3. Section 5.4 presents the data collection and sample. Section 5.5 detailed the study variables including dependent variables, independent variables and control variables. Section 5.6 shows the models of the study.

6.2 Research Paradigm

In the last four decades, there was a revolution in theory building. There was an increased focusing on processes, frameworks, and techniques, which led to the field being criticized for being atheoretical and promoting simplistic explanations for complex issues, and a wide range of research, drawing on different ontological and epistemological commitments, presented (Pellegrinelli & Murray-Webster, 2011). Thus, traditional approaches of theory building are not entirely consistent with the assumptions of alternative research paradigms, that are now assuming more prominence in organizational study (Gioia & Pitre, 1990).

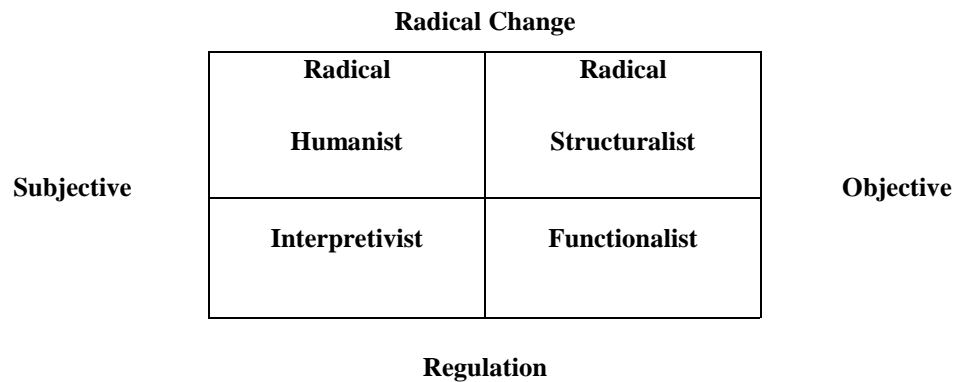
Paradigm is defined as a set of assumptions, concepts, values, and practices, that constitute a way of viewing reality for the community that shares them (Merchant, 2010; Malmi, 2010). The notion of paradigms was formulated by Thomas Kuhn in 1962, and paradigms are about different things, most notably about what is to be studied, the kind of research questions, what methods conducted, and finally, how

results should be interpreted (Lukka, 2010). So, approaches to theory¹⁰ building that are grounded in appropriate paradigmatic assumptions, are better suited to the study of those organizational phenomena (Gioia & Pitre, 1990). In this regard, the Burrell and Morgan (1979) framework proposes a way of analysis, mapping and understanding theories in society and organization. In their framework, as shown in figure (14), the first dimension is the assumptions about the nature of social science. This subjective-objective dimension encapsulates different assumptions in respect of ontology, epistemology, human nature, and the appropriate methodology for conducting scientific inquiry. The second assumption deals with the nature of society. Thus, the regulation-radical change dimension contrasts assumptions of society as defined by order, consensus, cohesion, and integration. These two dimensions generate four quadrants, that provide a heuristic schema for conceptualizing theories of society and organizations.

As mentioned by Burrell and Morgan (1979), figure (14) demonstrates the four paradigms which are the functionalist paradigm, the interpretive paradigm, the radical humanist paradigm, and the radical structuralist paradigm. The first paradigm which is the functionalist paradigm has the relative dominance characterised by a realist ontology, a positivist epistemology, a determinist view of human nature, and a nomothetic approach to methodology. Also, it is an objectivist view of the organizational world with an orientation to word stability. The interpretive paradigm focuses on the sociology of regulation, and is characterised as a more subjectivist view. The radical humanist paradigm shares the interpretive paradigm's subjective underpinnings, but deems society to be characterised by conflict, domination, and contradiction, with an emphasis on realizing human emancipation and potential. Finally, the radical structuralist paradigm is typified by an objectivist stance, with an ideological concern of the radical change of structural realities.

¹⁰ Theory is defined as any coherent description or explanation of observed or experienced phenomena. Also, theory building refers to the process or cycle by which such representations are generated, tested, and refined (Gioia & Pitre, 1990).

Figure 14: Burrell and Morgan Framework.



Source: Burrell & Morgagan, 1973.

6.3 Research Design and Method

Method is different from methodology. Thus, methodology is a broader term and refers to more than one set of methods. The method is the hypothetico-deductive methodology (Gaffikin, 2006), or it is the particular choice of methodology. It also refers to the specific analysis techniques, and describes the tools that are used to collect data, such as the survey, questionnaire, interview, reports and observation (Bakker, 2018). So, the development of hypothesis, data collection and analysis techniques, are referring to the research method.

The study used the empirical method to answer the research questions. Quantitative measures for the period (2000 – 2010) were collected and calculated from financial reports of the firms and Bloomberg database. Essentially, the sample includes the listed Australian firms, which were split into two groups: pre-IFRS adoption period and post-IFRS adoption period. In particular, the pre-IFRS adoption comprises all sample firms before 2005 in Australia, whilst post-IFRS adoption comprises all sample firms after 2005 in Australia. The date of 2005 is used to control for the period of mandatory IFRS adoption in Australia. The panel-data technique was used to regress each firm-year cost of equity capital and disclosures transparency on the independent variables. Choosing the period of 2000-2010 is important to address the date of mandatory adoption of IFRS in Australia, as it took place during 2005. This is a sufficient period to address the effect of the transition from Australian GAAP to IFRS, on cost of equity capital and disclosures transparency for Australian firms. The

sample period is also a sufficient period to capture changes in managerial strategies regarding ERM implementation levels.

6.4 Data

The study population comprises the Australian market. There are two reasons for this choice. Firstly, the capital market implications of IFRS research have received less attention and limited evidence in Australia. Secondly, the literature has produced criticism that legal enforcement is an important factor in this association (Li, 2010; Jeanjean & Stolowy, 2008; Daske, et al., 2008). Consistent with these reasons, and in order to ignore the legal enforcement role, the researcher chose the Australian market because it is characterized as a “common law” country and has a strong legal enforcement during and after the adoption of IFRS (Jeanjean & Stolowy, 2008; Australian Stock Exchange, 2016). Australian listed firms that listed for the period of 2000-2010 in ASX, and that can provide the data required for computing the study variables, will be chosen as follows:

Table 7: Study Sample.

Number of firms	Firms that do not satisfy the data requirements	Firms that satisfy the data requirements (as mentioned above)	The Sample
2197	1859	338	3380

Secondary data is the only source used to collect the study variables and includes financial reports of the Australian firms. The Australian stock exchange website was also used to access the financial reports. For market prices and analyst forecasts for cost of equity capital calculation and some control variables, the main source was Bloomberg database. Additionally, books and articles related to the topic, and data available online, such as the FASB, IASB and COSO websites were used.

6.5 Study Variables and Measurement

The researcher will employ the following variables in the study model:

6.5.1 Dependent Variables

6.5.1.1 Cost of Equity Capital (K)

This market measure has been discussed heavily in the literature and many models have been developed to estimate it, for example the Ohlson and Juettner-Nauroth model (2005), the Claus and Thomas model (2001), the Easton model (2004), the Gebhardt, Lee and Swaminathan model (2001), the APA model by Stephen Ross (1976) and the Capital Asset Pricing Model (CAPM) by William Sharpe (1964) (Lambert, et al., 2007; Hail & Leuz, 2007). For the purposes of this study and due to the lack of availability of data, the researcher estimated the cost of equity capital using the capital asset pricing model (CAPM) by William Sharpe in 1964, as follows:

$WACC_t = RFR + (\text{Beta} * \text{Country Risk Premium})$, where (WACC) is the weighted average of a firm's stock at date t; (RFR) is the risk free rate which refers to the rate of return on short-term treasury bills or T-bills; (Beat) is the risk level of individual security relative to the wider market; and (country risk premium) is the market rate of return minus the risk free rate.

6.5.1.2 Transparency (TRAN)

The way to identify firms whose managers practice earnings management is to focus on managerial incentives. Moreover, capital market incentives are demand-driven for earnings management (Dechow & Skinner, 2000), so the study used earning management as a proxy for transparency. The most widely known proxy for earning management measurement is Jones model (Jones, 1991), to obtain a proxy for discretionary accruals. The researcher followed Sun & Farooque (2018), Zeghal et al (2011), Kothari et al (2005), Koh (2003), and Leuz et al. (2003), by addressing three measures of earning management as proxies of firm incentives to be transparent as follows:

1- Discretionary accruals:

$$Accruals_{it} = (\Delta CA_{it} - \Delta Cash_{it}) - (\Delta CL_{it} - \Delta STD_{it} - \Delta TP_{it}) - Dep_{it} \dots \dots \dots 1$$

2- Jones Model (1991):

$$TA_{i,t} / A_{i,t-1} = \alpha_1 (1 / A_{i,t-1}) + \alpha_2 (\Delta REV_{i,t} / A_{i,t-1} - \Delta AR_{i,t} / A_{i,t-1}) + \alpha_3 (PPE_{i,t} / A_{i,t-1}) + \varepsilon_{i,t} \dots 2$$

3- Kothari et al. (2005) Model (Modified Jones model):

$$TA_{i,t} / A_{i,t-1} = \alpha_1 (1 / A_{i,t-1}) + \alpha_2 (\Delta REV_{i,t} / A_{i,t-1} - \Delta AR_{i,t} / A_{i,t-1}) + \alpha_3 (PPE_{i,t} / A_{i,t-1}) + \alpha_4 ROA_{i,t} + \varepsilon_{i,t} \dots 3$$

To calculate the earning management, the researcher regressed each year for each industry, to estimate the absolute value of residuals as a proxy for earning management, and for this proxy, the increase in any of the three above measures indicate an increase in earning management and increase in transparency proxy. For the above: (ΔCA_{it}) is the change in total current assets, ($\Delta Cash_{it}$) is the change in cash/cash equivalents, (ΔCL_{it}) is the change in total current liabilities, (ΔSTD_{it}) is the change in short-term debt included in current liabilities, (ΔTP_{it}) is the change in income taxes payable, (Dep_{it}) is the depreciation and amortization expense for firm i in year t , TA is the total accruals for firm I at year t , ΔREV is the change in revenues for firm I at year t , ΔAR is the change in account receivable for firm I at year t , PPE is the gross property, plant and equipment for firm i at year t , and ROA is the return on assets for company I at year t .

6.5.2 Independent Variables

6.5.2.1 IFRS Mandatory Adoption (IFRSA)

This variable represents all Australian firms mandated to adopt IFRS in 2005. To capture the effect of IFRS adoption, the researcher's key variable is the time period effect, consistent with Hail and Leuz (2007) and Daske et al. (2008). In this study, the researcher uses a dummy variable which will take a value of (0) for the period of GAAP adoption, which is from 2000 to 2004, and (1) for the period of IFRS adoption, which is from 2006 to 2010.

6.5.2.2 ERMIL

The literature has discussed many techniques to capture ERMIL. For example, some researchers used the survey technique using a scale to allocate the implementation level of ERM (see (Beasley, et al., 2005; Beasley, et al., 2009; Ahmad, et al., 2014; Paape & Spekle, 2012; Kleffner, et al., 2003; Razak, et al., 2016) whilst others have used the appointment of chief risk office (CRO), the S&P rating or content analysis of firms' annual reports to assess ERM implementation (Lundqvist, 2014; Pagach & Warr, 2010; Hoyt & Liebenberg, 2011; Liebenberg & Hoyt, 2003; McShane, et al., 2011; Quon, et al., 2012; Shad & Lai, 2015; Gordon, et al., 2009). ERM has been examined regarding its implementation, its association with firm characteristics and shareholder value. In this regard, Gatzert and Martin (2015)

demonstrated that there is a consistency in the empirical literature with respect to the significance of and positive relationship between company size, the institutional ownership, the existence of CRO, Tobin's Q and industry characteristics. Additionally, firms audited by one of the big-four auditors were unanimously found to have an ERM system. Since the ERMIL measure is inconclusive, the researcher will build on the empirical literature by using the factors that were empirically proven to associate significantly and positively with ERM practices. For the purposes of this study, the researcher will use (6) variables to measure ERM implementation levels; the first three variables (CRO, ownership structure and big-four auditors) capture corporate governance in firms, which is required in the COSO guidelines for firms adopting ERM (Kleffner, et al., 2003). Therefore, the researcher will capture changes in corporate governance variables as a change in ERMIL. In addition, the other two variables (firm size and Tobin's Q) are quantitative measures that change over time as a result of changes in management strategy, so they provide suitable measures for the researcher to capture changes in ERMIL over the years. Lastly, some firms take advantage of ERMIL since they are exposed to more risks.

This study assumes that firms have full ERMIL in any year when all of these variables are achieved in that year. Furthermore, any firm failures to achieve one or more variable during any year, will reflect changes in ERMIL. Each of the following dummy variables takes a value of (1) for positive sign and (0) otherwise, as follows:

1 - Announcement of chief risk officer (CRO) for each firm-year observation: The presence of a CRO in the firm was found to be positively associated with ERM, given this individual's important role in promoting ERM system (Liebenberg & Hoyt, 2003). The researcher used a dummy variable that takes the value of (1) for firms that declare hiring a CRO in their annual reports as a signal of ERM implementation, and (0) otherwise.

2 - Institutional ownership for each firm-year observation: Many researchers argued that if ownership is dispersed, management might find it easy to ignore investors preferences. The institutional owners also control a substantial part of voting rights which influence management directly, and the control of large institutional block holders over the supply of capital, will affect cost of capital for the firm (Liebenberg & Hoyt, 2003; Paape & Spekle, 2012). In addition, a more independent board will be more objective in the assessment of management actions (Beasley, et al., 2005).

Chapter 6: Research Method

Beasley et al. (2005) used the percentage of board members who are independent, to express the institutional ownership. However, Paape and Spekle (2012) used the majority of shares owned by institutional investors. This study followed Paape and Spekle (2012) for this dummy variable. It assigned a value of (1) if the majority of the shares are owned by institutional investors, as a signal of ERM implementation, and (0) otherwise.

3 - Firm audited by the big four auditors for each firm-year observation: The big four firms are more committed to risk management based on explicit calls than other external auditors (Beasley, et al., 2005). This variable took the value of (1) for firms audited by one of the big four auditors in any year, and (0) otherwise.

4 - Size for each firm-year observation: A large company size is associated with increased scope and complexity of risk, which increases the likelihood of ERM implementation, (Gatzert & Martin, 2015). Similar to Altamuro et al. (2005), the study used the natural logarithm of total assets at the end of the physical year as a measure of firm size. The study computed the median size as a benchmark for each firm for the study period (2000-2010), and this variable takes the value of (1) in any year when the calculated size is above the median size in that year, and (0) when the calculated size is below the median size.

5 - Tobin's Q: This is the measure of firm value from the shareholder perspective, and reflects the firm's future growth expectations. It is used as a signal for ERM implementation, since it is relatively free from managerial manipulation (Lindenberg & Ross, 1981). It is also found to be positively associated with ERM implementation (Gatzert & Martin, 2015). This study followed the consensus around the performance of ERM regarding its positive and significant relation with Tobin's Q using the formula of the market value of equity plus the book value of liabilities, divided by the book value of assets (Hoyt, et al., 2008; Hoyt & Liebenberg, 2011; McShane, et al., 2011). Tahir and Razali (2011) built on the results of Hoyt and Liebenberg (2008) to suggest that, if the company practices ERM, the value of the company is 3.6% to 17% higher, than the value if ERM is not practiced. This study followed Tahir and Razali (2011), by assigning the value of (1) for each firm-year observation that is 3.7% to 17% higher than the previous firm-year observation, and (0) otherwise.

6 - Firms in the financial services industry (banks, insurance) and energy sector: These sectors have more risks, and are sensitive and highly regulated businesses, so they are likely to adopt more comprehensive risk strategies (Paape & Spekle, 2012; Mikes,

2009). Additionally, the energy sector is a highly volatile market, and implementing ERM system reduces earnings volatility (Liebenberg & Hoyt, 2003).

An ordinal scale used to express the ERM level of implementation for each firm-year observation ranging from 0 to 6, as follows:

ERMIL = 0, if no ERM system for firm-year; ERMIL = 1, if firm achieves one positive sign of the above dummy variables for each firm-year; ERMIL = 2, if firm achieves two positive signs of the above dummy variables for each firm-year; ERMIL = 3, if firm achieves three positive signs of the above dummy variables for each firm-year; ERMIL = 4, if firm achieves four positive signs of the above dummy variables for each firm-year; ERMIL = 5, if firm achieves five positive signs of the above dummy variables for each firm-year; ERMIL = 6, if firm achieves six positive signs of the above dummy variables for each firm-year.

6.5.3 Control Variables

Empirical argument indicates that many factors may cause fluctuations in the cost of equity capital and earnings management measures. Therefore, five control variables were used discussed next.

6.5.3.1 The Endorsement Date (Post-AASB)

It is possible that firms may take advantage of period-specific adoption effects. Furthermore, stockholders may update their assessment of IFRS reporting once it becomes clear that GAAP no longer exists. Similar to Daske et al. (2008) and Armstrong et al. (2010), the study used the endorsement date of actual IFRS by the Australian Accounting Standards Board, as a factor to capture the incremental effect of IFRS reporting before the mandatory adoption date, which includes the effects of the years 2002, 2003 and 2004. This variable takes the value of (1) from 2002 through 2010, and zero before 2002.

6.5.3.2 Return Variability (RV)

As mentioned by Hail and Leuz (2006), the study controls the effects of the monthly stock returns deviation on cost of equity capital. This variable will be measured as the annual standard deviation of monthly stock returns at year-end.

6.5.3.3 Leverage (LEV)

This variable represents the construction of debt-equity, which may play a role in the cost of capital and earnings management measures. Consistent with Li (2010), this study computes it as the total of liabilities divided by total assets, at each firm-year end.

6.5.3.4 Risk-Free Rate (RFR)

This is the basic rate of interest assuming no inflation and no uncertainty for future flows (Reilly & Brown, 2012). Following Daske et al. (2006), the study uses the yearly median of the nominal local yields on short-term treasury bills, to represent this variable.

6.5.3.5 Book-to-Market Ratio (BTM)

Prior literature has shown that the book value to market value of equity is a risk factor that affects cost of equity capital as mentioned in the model presented by Fama and French (1993). The study follows the calculation of Ghoul et al. (2011), meaning the book value is the shareholders' equity plus deferred taxes and investments tax credits, minus the book value of preferred stock.

6.6 Models of the Study

Two multiple regression models were developed to test study hypotheses. The first model examined the effect of adopting IFRS on firm incentives using the GAAP period as the control sample. It also tested the role of the moderator variable (ERMIL) with regard to the relationship between IFRS adoption and the firm incentives proxy, which indicates the incremental value of ERMIL in relation to increased managerial transparency. The second regression model tested the capital market effects for IFRS adoption as well as the incremental value of ERMIL on capital market rather than IFRS adoption. Finally, to capture the effect of ERMIL on the economic consequences of IFRS adoption through its indirect effect on firm incentives, the coefficients of the term (IFRS*ERMIL) in the first and second model will be multiplied. The panel-data approach will be used to test the following models:

$$TRAN_{iY} = \alpha_0 + \alpha_1 IFRSA_{iY} + \alpha_2 ERMIL_{iY} + \alpha_3 (IFRSA_{iY} * ERMIL_{iY}) + CONTROLS_{iY} + \varepsilon_{iY} \dots 4$$

$$K_{iY} = \alpha_0 + \alpha_1 IFRSA_{iY} + \alpha_2 ERMIL_{iY} + \alpha_3 TRAN_{iY} + \alpha_4 (IFRSA_{iY} * ERMIL_{iY}) + CONTROLS_{iY} + \varepsilon_{iY} \dots 5$$

Then, the product of multiplying the estimated (α_3) in the first regression model and (α_4) in the second regression model ($\alpha_3 * \alpha_4$), expresses the influence of ERMIL on the economic consequences of IFRS adoption through its indirect effect on firm incentives.

Where, (K_{iY}) is the cost of equity capital; ($TRAN_{iY}$) is the a proxy of firm incentives; ($IFRSA_{iY}$) is a dummy variable that takes the value of (1) for the IFRS

Chapter 6: Research Method

adoption period and (0) otherwise; $(ERMIL_{iY})$ is the enterprise risk management implementation level, which takes a value from 0 to 6; $(IFRSA_{iY} * ERMIL_{iY})$ represents the implementation of ERM through GAAB or IFRS periods; Controls include Post-AASB, Return Variability, Leverage, Risk Free Rate, Book to Market Ratio and Forecast Bias; finally, (e_{iY}) is the error term and for each variable (i) and (y) represent the firm-year observation.

6.7 Chapter Summary

This chapter presented the research design, hypothesis, data, and research method. It started with a justification for choosing method, and the research design. Then, the research questions that developed in chapter 1 are formulated into testable hypothesis. Also, this chapter provided a detail of the study period and data set, and sources of data. Additionally, this chapter explained all the variables related to the study which are used in developing the analytical models. Later in this chapter, the developed analytical models are specified. The next chapter provides a detailed discussion of the research results, including the descriptive results of the data variables. The diagnostic tests, and finally the results of the multi-regression models have been examined.

CHAPTER 7: RESULTS

7.1 Introduction

This study aims to investigate the role of enterprise risk management implementation level (ERMIL) with regard to the economic consequences of IFRS adoption, by examining the ERM indirect effect on firm incentives. This chapter includes the data analysis and results for both models as mentioned in the previous chapter. This chapter is organized as follows: Section 7.2 explores the characteristics of the sample. Section 7.2 presents the descriptive analysis of the data sample. Section 7.3 examines a diagnostic checks by testing the multicollinearity, normality, heteroscedasticity, and outlier of the sample. Section 7.4 examines the correlation between variables of the study. Section 7.5 addresses the regression analysis for the sample of the study. Section 7.6 discusses the hypothesis testing. Finally, section 7.7 is the chapter summary.

7.2 Descriptive Analysis

This section provides an overview of the central tendency measures and variation measures. The most important measures for the central tendency are the mean, median and mode. Also, the range and the standard deviation are used to measure the variation. Table (8) provides an overview of the descriptive statistics of the variables, and the initial observations of the data sample is 338. Descriptive statistics summarises patterns of data in terms of such, as the mean, standard deviation, minimum, and maximum. Also, it provides an overview of the sample variables characteristics and it can help the reader to simplify large amounts of data in a reasonable way.

The first measure of transparency which is the accruals, have a mean value of -1.04, and the standard deviation is 5.23, which indicate a high variation in the study sample for this variable. The values of the variables range between -43.17 and 0.77, which shows that the mean value is concentrated in the upper point of the observations.

Table (8) also shows that the second measure of transparency (EM_Jones) has a mean value of 0.26, and a standard deviation value around 2.68, which also indicate a variation in the observations of this variable. The minimum and maximum of the observations has a small range between -9.55 and 16.64. This indicates that the

Chapter 7: Results

total spread of this variable is low. Additionally, the descriptive results of EM_Jones have better indications than the accruals descriptive results.

For the third measure of transparency (modified Jones model), the results show that the mean value concentrate around the lowest point of the observations range of value of 0.99, but the observations are highly variated, since the standard deviation is 2.67. The mean model does not fit the data as a measure of central tendency, and the observations for this variable range between 0.00 and 17.52.

The table also provides the descriptive statistics for cost of equity capital. The results indicate a high tendency from the mean value for the observations. It has a high standard deviation of 37.60 and a mean value of 14.52. The observations range between 0.01 and 326.68, so the mean model does not fit the data and a big range between observations is found.

The hypothetical mean for IFRSA equals 0.55, and the standard deviation is around the mean value 0.50. This indicates that the mean value represents the data accurately. Also, the range of IFRSA observations were between 0.00 and 1.00, which suppose no dispersion in the observations of the variable.

The descriptive results of ERMIL seems to be normal. The mean value is 1.77, and the standard deviation is 1.08, which indicate that no variation in the observations of ERMIL. Also, the level of implementing ERM between Australian firms ranges between 0.00 and 5.00.

The endorsement date as a dummy variable has a mean value of 0.82, and its standard deviation is 0.39, which indicate that the mean value accurately represents the data. And no dispersion in the values of this variable since the observations range between (0.00) and (1.00).

The collected observations of return variability is 338, and descriptive results show that on average, return variability for Australian firms is 74.61. Additionally, the S.D is 70.75 which indicate a normal distribution of the observations. The observation range is between (12.20) and (422.11), which show a high spread of the observations. Also, the table shows that the average number of the total debt divided by total assets (leverage) between the Australian firms in the sample is 6.49, but the observations in the sample data are highly variated from the mean, since S.D is 31.77. Additionally, the observations range between 0.00 and 251.67.

The results show that the average score of risk free rate is 5.47, and the average error between the mean and the observations of risk free rate is small (S.D is 0.57).

Chapter 7: Results

The spread of the observations range between 4.00 and 6.33. These results indicate that the mean value fit the data.

The last variable in the table is the book to market ratio. Which shows that the average ratio of book to market value between the Australian firms in the sample, is 2.73, but the variation is slightly high since the S.D is 4.22. The observations range between -7.43 and 28.55.

Table 8: Descriptive Analysis.

Variable	Obs	Mean	Standard Deviation	Min	Max
EM_Accruals	3718	-1.04	5.23	-43.17	0.77
EM_Jones	3718	0.26	2.68	-9.55	16.64
EM_modified Jones	3718	0.99	2.67	0.00	17.52
Cost of equity capital	3718	14.52	37.60	0.01	326.68
IFRSA	3718	0.55	0.50	0.00	1.00
ERMIL	3718	1.77	1.08	0.00	5.00
ENDO	3718	0.82	0.39	0.00	1.00
VOLATILITY	3718	74.61	70.75	12.20	422.11
Leverage	3718	6.49	31.77	0.00	251.76
RFR	3718	5.47	0.57	4.00	6.33
BTMR	3718	2.73	4.22	-7.43	28.55

7.3 Multiple regression analysis: Diagnostic checks

Before proceeding to statistical analysis, it is important to check whether the data satisfies the relevant assumptions, or, put alternatively, the assumptions of the multiple regression analysis are not violated. These diagnostics included multicollinearity, normality, heteroscedasticity, and outlier.

7.3.1 Multicollinearity

It is defined as a condition when the explanatory variables are considerably correlated with each other, and this is not acceptable in the regression model. Thus, when multicollinearity between independent variables is found, this problem must be solved. Previous literature argued about the “Rule of Thumb” technique to test the multicollinearity problem by using the correlation matrix. Multicollinearity becomes

a problem when the correlation between variables is higher than 80% (see for example, Li et al 2012). Also, they argued that multicollinearity becomes a serious concern when the VIF exceeds 10 (Maiga, et al., 2014; Li, et al., 2012). The more the multicollinearity is exact, the less reliable are the estimates, and the inflated variances of coefficient estimates harm hypothesis testing, estimation and forecasting. Also, when there is multicollinearity among explanatory variables, the marginal contribution of any variable in reducing the SSE depends on which other variables are already in the regression model (Alin, 2010).

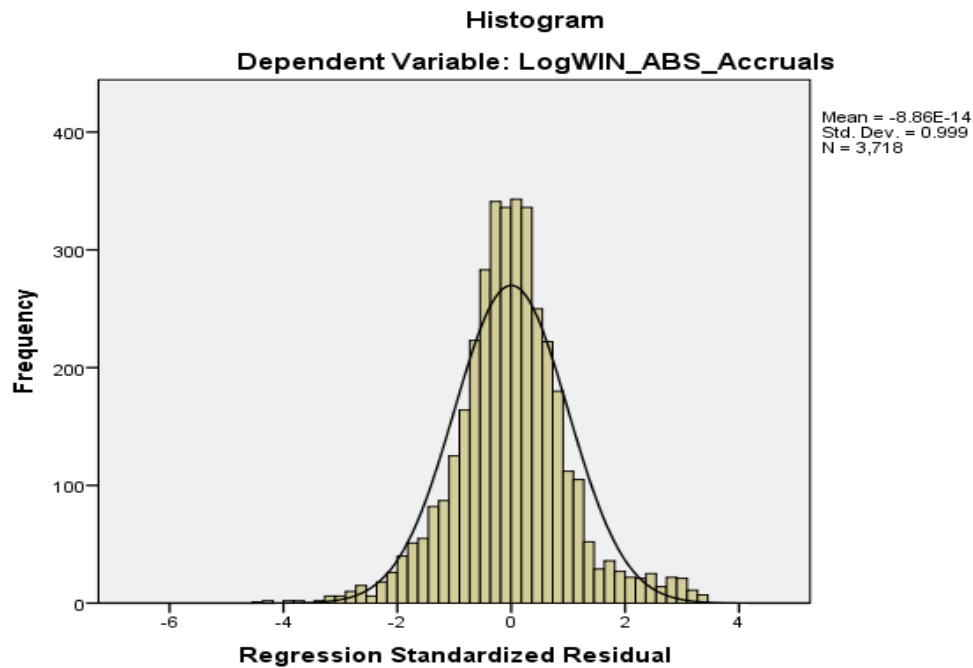
Therefore, an examination of the correlation between independent variables has been done. And as shown in Table (10) , the correlation between the explanatory variables is within the acceptable range (the maximum one is 0.52) and no multicollinearity problem is found. Additionally, Table (10) in column (9) provides the VIF for each independent variable, and results show that all the independent variables have a VIF value below 2.0, which does not reach to 10. The VIF results show that no multicollinearity problem is found.

7.3.2 Normality

In the normality, the researcher tests that if in the population, the sample observations have a normal distribution. In other words, the perfect regression model should have residuals that are normally distributed. So when the residuals are normally distributed, the regression model should be accepted. Literature argued that with a sample size more than 30, the normality is likely not to cause any problem (Rashid, 2013; Prasad, et al., 2009). Thus, in this research sample normality problem is not expected to be found.

Furthermore, the residuals tests using Shapiro-Wilk test were performed to check the normality, and the results show that no normality of the data. For this reason, the log transformation of the data has been done (Field, 2013). The Histogram-Normality test was performed after the transformation of the data, and the results of this test provides a “Bell-Shape” indicating the normality of data (see figure 15).

Figure 15: Normality Histogram.



7.3.3 Heteroscedasticity

Heteroscedasticity assumes that the residuals have equal variances across all levels of predictors. In other words, the error variance is approximately constant. Therefore, if there is heteroscedasticity in the model, it should be removed from the model. For this reason, Breusch-Pagan test (see for example, Montes-Rojas & Sosa-Escudero, 2011; Vandenbulcke, et al., 2011) were performed for heteroscedasticity (see Table 9) and the test indicates an evidence of heteroscedasticity. For this purpose, the researcher corrected the heteroscedasticity using robust standard error (Stock & Watson, 2008; Adkisson & Mohammed, 2014).

Table 9: Breusch-Pagan Test.

Fitted Values of WIN_ABS_Accruals	Value
chi2(1)	2096.98
Prob > chi2	0.0000

7.3.4 Outliers

Outlier can be defined as as an observation considered being different from the remainders (He, et al., 2003). In other words, the case that differs significantly from

the overall trend of the data, is considered an outliers (Field, 2009). The researcher examined this problem, and some outliers found in some variables. This problem solved using the Winsorizing techniques, by taking 1% from top and 1% from bottom.

7.4 Correlation and Regression Results

7.4.1 Correlation

Table (10) provides Pearson’s correlation analysis of the study variables. The results show that the highest correlation is between the endoresment date and IFRS adoption (0.51). However, this does not represent a problem because it is less than 0.80, which is considered a dangoures point.

Table 10: Correlation Analysis.

	1	2	3	4	5	6	7	VIF
IFRSA	1.000							1.37
ERMIL	0.016	1.000						1.02
ENDO	0.516	0.016	1.000					1.45
Volatility	-0.026	-0.108	-0.044	1.000				1.07
Leverage	-0.010	-0.012	-0.012	0.027	1.000			1.00
RFR	-0.053	-0.003	-0.216	-0.198	-0.005	1.000		1.11
BTMR	0.012	-0.044	0.027	-0.071	-0.017	0.076	1.000	1.01

IFRSA is found to be positively associated with ERMIL, endorsement date, and book to market ratio. Although, it has negative association with return variability, leverage and risk free rate. The highest correlation is with the endorsement date of 51%, but this is not recognised as a problem. Although, the lowest correlation is found to be with leverage of -1%. ERMIL has a positive association with endorsement date, and negative association with return variability, leverage, risk free rate, and book to market ratio. The highest correlation is found to be with return variability of about 10%. This assumes that implementing higher level of ERM is attributed with higher levels of volatility, which indicates that when firms deal with more risks, they seek to implement higher levels of ERM. Although, the lowest correlation is with risk free rate of less than 1%.

The endorsement date is negatively correlated with return variability, leverage, and risk free rate. The highest correlation is with risk free rate of about 22%. The correlation coefficients are -4%, -1%, -22%, 3% respectively. Return variability result

shows that it has a positive correlation with leverage, and negative with risk free rate and book to market ratio. It has high correlation with risk free rate of about -20%. Although, it has a correlation coefficient of about 3% with leverage, about -7% with book to market ratio. Moreover, leverage has a very weak correlation coefficient with risk free rate and book to market ratio. It is correlated with risk free rate negatively of less than 1%, and about 2 % with book to market ratio. Additionally, risk free rate has a positive association with book to market ratio of about 8%.

7.4.2 Regression

To provide more insight about the economic consequences of IFRS, multiple regression analysis was used to test the effect of adoption IFRS on the cost of equity capital under the implementation of ERM level, and simple linear regression analysis for each independent variable was regressed on the dependent variables of the two models, using SPSS software in response to the study purpose.

7.4.2.1 Regression of the First Model Using the Accruals as a Proxy Measure of Transparency

For the first model, three versions of the model were used. The first one is without the interaction between IFRSA and ERMIL ($IFRSA * ERMIL$), and without the industry factor. In the second regression test the researcher added the industry factor, and the last regression test includes the interaction as shown in table (12). Table (12) below represents the multiple regression for the following model:

$$TRAN_{iY} = \alpha_0 + \alpha_1 IFRSA_{iY} + \alpha_2 ERMIL_{iY} + \alpha_3 (IFRSA_{iY} * ERMIL_{iY}) + CONTROLS_{iY} + \varepsilon_{iY} \dots 4$$

The first column of table (11) shows multiple regression analysis of transparency on IFRS adoption, ERM implementation level and the interaction between these two variables, and finally on the control variables. The results indicate that the estimated model is suitable for the sample data and independent variables do significantly explain the variation of transparency since F-value is 17.81. Regarding R^2 , it shows that the model explains only 3% of changes in transparency.

In the second column of table (11) which represent the model with adding the industry factor, F-value is 7.59, which means that the estimated model is suitable for

Chapter 7: Results

the sample data, and independent variables explain the variation of transparency. But with adding the industry factor to the model, it shows that the percentage of the variation in the outcome that can be explained by the model is only 4%.

The third column which represents the model including the interaction term and industry factor in the independent variables, shows an F-value of 7.17, which indicates that the estimated model is also suitable for the sample data, and the independent variables explain the variation of transparency. The model also explains about 4% of changes in the dependent variable.

Table 11: Regression Results for the First Model Using Accruals.

Model 1	1	2	3
_CONSTANT	-7.1382 (-6.23) ^{***}	-7.8154 (-6.58) ^{***}	-7.7706 (-6.75) ^{***}
IFRSA	1.1909 (9.75) ^{***}	1.1920 (9.72) ^{***}	1.1070 (3.78) ^{***}
ERMIL	0.2372 (2.76) ^{***}	0.2154 (2.47) ^{**}	0.1874 (2.07) ^{**}
FRRS*ERMIL			0.0481 (0.30)
ENDO	-0.6682 (-2.78) ^{***}	-0.6738 (-2.81) ^{***}	-0.6728 (-2.79) ^{***}
VOLATILITY	0.0025 (2.38) ^{**}	0.0021 (2.09) ^{**}	0.0021 (2.10) ^{**}
LEVERAGE	-0.0015 (-1.12)	-0.0015 (-1.13)	-0.0015 (-1.10)
RFR	1.3733 (7.80) ^{***}	1.3643 (7.79) ^{***}	1.3645 (7.78) ^{***}
BTMR	0.0326 (1.29)	0.0333 (1.31)	0.0333 (1.32)
INDUSTRY	No	Yes	Yes
R-SQUARED	0.0364	0.0402	0.0402
F-STATISTICS	17.81	7.59	7.17
P-VALUE	0.0000	0.0000	0.0000
N	3718	3718	3718

Chapter 7: Results

In table (11), the IFRS mandatory adoption found to have a positive and significant effect on transparency, as measured by accruals at 1% level of significance, where the increase of IFRS adoption by one unit will increase earning management, and as a result, decrease the transparency by approximately 100% of the unit. This result is consistent with this research hypothesis, but it is not in line with (Lambert, et al., 2007; Leuz & Verrecchia, 2000; Daske, et al., 2013), who found that incentives for firms to be transparent are important factors that control the capital market effects around the adoption of IFRS. Also, this result does not support the point of view that the principles-based standards are more effective in stopping bias in financial reports and less likely to report aggressively than GAAP (Agoglia, et al., 2011; Cohen, et al., 2013). But, one explanation can be explained for this positive effect is that adopting IFRS by the Australian firms was an incentive for management for false signalling of high quality reporting, which means that managers in Australian firms deliberately adopt IFRS only to signal to users high quality reporting although, adopting IFRS by those firms, did not direct their incentives to be transparent.

ERMIL was found to be positive and has significant effect on transparency at 1% level of significance. Thus, increasing the implementation level of ERM increases the earning management, and as a result decreases the transparency of reports by about 23% of the unit. This explains that adopting higher level of ERM by the firm management may not signal to stakeholders about high quality reports of the firm. The endorsement date has a significantly negative effect on transparency at 1% level of significance. This means that increasing the endorsement date by one unit, leads to a decrease in earning management and an increase transparency by about 66% of the unit. In contrast, return variability has a significantly positive effect of transparency at a 5% level of significance. However, the magnitude of the effect is small, increasing return variability by one unit decreases the transparency by 0.25%. Regarding leverage, it has a slight negative effect on transparency, but it is not statistically significant.

Risk-free rate affects transparency positively. If it increases by one unit, earning management increases and thus transparency decreases by 1.3733. This coefficient is statistically significant at 1%. Finally, book-to-market ratio has a positive effect on transparency as well. However, unlike the previous ratio, its effect is slight and not statistically significant.

The second column in table (11) provides the results of regression analysis if the industry factor is included in the model. IFRS mandatory adoption is found to be positively associated with transparency. Thus, increasing the mandatory adoption of IFRS increases earning management and as a result, decreases transparency by approximately 100%, and this result is significant at 1% level of significance. This result is in line with the research hypothesis, thus it is expected no positive influence on transparency under the mandatory adoption of IFRS. Although, results of previous research indicate that the management incentives to be transparent is an important factor for IFRS when testing the economic consequences of IFRS. For ERMIL, it has a significantly positive effect on transparency at 1% level of significance. Thus, the increase in the implementation level of ERM by one unit, leads to an increase in earning management and decrease in transparency by about 21%. An explanation for this result is that adopting higher level of ERM by Australian firms does not capture managerial incentives to be transparent.

The endorsement date and leverage have a negative significant effect on transparency. Increasing the endorsement date or leverage by one unit, will decrease earning management and increase transparency by 67% or 0.153%, respectively. This effect is significant at 1% for the endorsement date, but it is not significant for leverage. Although for the return variability, risk free rate and book to market ratio both have a positive effect on transparency by 0.2%, 100% and 3% respectively. And these effects are significant at 5%, 1% for book to market ratio and risk free rate respectively, but it is not significant for the leverage.

The third column in table (11) shows the regression results for the first model including the industry factor and interaction term. The first independent variable, the IFRS mandatory adoption has a positive effect on transparency, it affects transparency by about 100% at 1% level of significance. This result supports the research hypothesis, thus the mandatory adoption of IFRS encourage the management to adopt IFRS for false signalling about high quality standards for stakeholders. Although previous research results indicate that the management incentives to be transparent is one condition for the economic consequences of IFRS.

This study hypothesises that implementing higher level of ERM under IFRS adoption captures the management incentives to be transparent. Results in table (11) indicate that implementing ERM by the firm increases transparency by 18%, and this result is significant at 1% level of significance. This means that implementing higher

level of ERM does not capture management incentives to be more transparent, since earning management increases. But the interaction term that represents the implementation of ERM under the adoption of IFRS, shows that implementing higher level of ERM under the mandatory adoption of IFRS period, increases transparency by 5% , but this effect is not significant. This means that implementing higher level of ERM under IFRS mandatory adoption by Australian firms, has no statistical effect on earning management and firm transparency. This result is not in line with the research expectation, thus it is expected to have a positive effect on disclosures transparency of the firm.

For the control variables, both the endoresment date and leverage show a negative and significant effect on transparency of 67% and 0.1% respectively. The endorsement date is statistically significant at 1%, but leverage is not significant. Return variability, risk free rate and book to market ratio, have a statistically significant positive effect on transparency of 0.2%, 100% and 3% respectively. Return variability is significant at 5% level of significance. Risk free rate is positive at 1% level of significance, Finally, the book to market ratio is not statistically significant.

7.4.2.2 Regression of the First Model Using Jones Model as a Proxy Measure of Transparency

For the first model, three versions of the model were used. The first one is without the interaction between IFRSA and ERMIL ($IFRSA * ERMIL$), and without the industry factor. In the second regression test the researcher added the industry factor, and in the last regression test, the researcher added the interaction as shown in Table (12). Table (12) below represents the multiple regression for the following model, using Jones model as a measure proxy for transparency:

$$TRAN_{iY} = \alpha_0 + \alpha_1 IFRSA_{iY} + \alpha_2 ERMIL_{iY} + \alpha_3 (IFRSA_{iY} * ERMIL_{iY}) + CONTROLS_{iY} + \varepsilon_{iY} \dots 4$$

The first column of Table (12) shows multiple regression analysis of transparency as measured by Jones model on IFRS adoption, ERM implementation level, in addition to the control variables. The results show that the estimated model is suitable for the sample data, and the independent variables significantly explain the variation of transparency with an F-statistic is 47.91. For R^2 , it shows that the model

explains 12% of changes in transparency, which indicates a low predictive power of the model using Modified Jones model as a proxy of transparency.

The second column in Table (12) presents the regression analysis of transparency as measured by Jones model on IFRS mandatory adoption, ERMIL, the industry term and control variables. The F- statistic of 23.84 shows that the model is suitable, and the independent variables significantly explain the variation in the dependent variable (transparency). R^2 explains 18% of changes in transparency.

In the third column of Table (12), the results present the regression model using Jones model as a proxy of transparency, and IFRS mandatory adoption, ERMIL, industry factor and the interaction term as independent variables, and the control variables. F-statistic measures how much the model has improved the prediction of the outcome compared to the level of inaccuracy of the model. Thus, the model is suitable since the F-statistic is high (22.54). Also, the model explains 18% of the variation in the outcome.

In the first model that does not include the industry factor and the interaction term (the first column in Table 12), it shows a positive effect of IFRS mandatory adoption on transparency. Thus, the adoption of IFRS increases earning management and decreases transparency by 98%, at 1% level of significance. This result supports the research hypothesis, but it is not in line with (Lambert, et al., 2007; Leuz & Verrecchia, 2000; Daske, et al., 2013), who found that incentives for firms to be transparent are important factors that control the capital market effects around the adoption of IFRS. Additionally, the same result was found when using the accruals as a proxy measure of transparency. One explanation for this positive effect is that IFRS encourage managers in Australian firms to adopt it for false signalling of high quality reporting.

ERMIL result shows that implementing higher level of ERM by the firm management increases transparency by approximately 6%, but this effect is not statistically significant. This explains that adopting higher level of ERM by the firm management may not signal to stakeholders about high quality reports of the firm.

The endoresment date was found to be negatively associated with transparency. Thus, an increase in the endorsement date by one unit, leads to a decrease in earning management and increase in transparency by 10% of the unit. This result is not significant, however.

Chapter 7: Results

For the other control variables, they show a positive statistically significant effect on transparency. By increasing return variability of one unit, earning management increases and transparency decreases by 0.1% of the unit at significance level of 5%. Whilst increasing leverage by one unit, decreases transparency by 0.01%, but it is not significant. Regarding risk free rate, the results show that an increase in risk free rate by one unit, increases earning management and decreases transparency by 130% at 1% level of significance. Finally, increasing book-to-market ratio by one unit, leads to a decrease in transparency of about 2% at 5% level of significance.

For the second column in Table (12), the results indicate that IFRS mandatory adoption has a significant and positive effect on transparency of about 98% at 1% level of significance. This means that adoption of IFRS by the Australian firms increases earning management and as a result decreases transparency. This result is going in line with this research hypothesis, but not in line with Lambert et al. (2007); Leuz & Verrecchia (2000); Daske et al. (2013). An explanation for this positive effect is that adopting IFRS by the Australian firms is an incentive to the management for false signalling of high quality reporting.

Regarding ERMIL, increase in the ERM implementation level by one unit increases transparency by approximately 3%, and this effect is not significant. Moreover, the endorsement date has a negative effect on transparency of 10%, but this negative effect is not significant. Furthermore, the other controls show a positive effect on transparency. Thus, return variability has a very insignificant slight effect on transparency of 0.0561%. Leverage also has a weak insignificant effect of 0.0145%. Risk-free rate has a large effect on transparency of about 130% at 1% level of significance. Finally, the increase in book-to-market ratio of one unit, increases earning management and decreases transparency by 2% of the unit at 10% level of significance.

Finally, the third column shows the model that includes both the interaction term and industry factor. It shows that the IFRS mandatory adoption has a statistically significant strong effect on transparency of 100% at 1% level of significance. The same result was obtained when using the accruals as a proxy measure of transparency. This result means that adopting IFRS by Australian firms, increases earning management and decreases transparency by 100%. This result is going with this research hypothesis, but not in line with past literature (see for example; Lambert et al. 2007; Leuz & Verrecchia 2000; Daske et al. 2013). An explanation for this positive

Chapter 7: Results

effect, is that adopting IFRS by the Australian firms is an incentive to the management for false signalling of high quality reporting.

ERMIL also has an insignificant positive effect on transparency, thus, increasing the implementation level of ERM by one unit, increases transparency by about 5% of the unit. Additionally, the interaction term between IFRS and ERM shows a statistically insignificant negative effect on transparency of approximately 4%. This result is the same when using accruals as a measure of transparency. This study expects higher disclosure transparency when the firm adopts higher level of ERM under IFRS adoption period, but this result does not support this expectation. Although, the negative effect means that implementing higher level of ERM under IFRS adoption period, leads to decrease in earning management and increases in transparency, but it is not statistically significant. An explanation for this result is that the implementation of higher level of ERM by Australian firms, does not capture the incentives of the management to be more transparent, and the reason for that may be an error in the application, or Australian firms adopt ERM for false signalling to stakeholders.

The endorsement date affects transparency by about 11% , but it is not statistically significant. Return variability and leverage have a very weak positive effect on transparency by 0.0642% and 0.0117% respectively, and these effects are not significant. Risk free rate has a coefficient of 1.324264 at 1% level of significance. And finally, the increase of book to market ratio by one unit, increases transparency by approximately 2%, and this is significant at 10% level of significance.

Table 12: Regression Results for the First Model Using Jones Model

Model 1	1	2	3
_CONSTANT	-7.0370 (-12.85)***	-7.7541 (-14.28)***	-7.7886 (-14.5)***
IFRSA	0.9856 (15.77)***	0.9867 (15.71)***	1.0522 (8.04)***
ERMIL	0.0574 (1.53)	0.0255 (0.70)	0.0471 (1.40)
FRRS*ERMIL			-0.0370 (-0.56)
ENDO	-0.1060	-0.1096	-0.1104

	(-1.11)	(-1.17)	(-1.17)
VOLATILITY	0.0010 (2.22)**	0.0007 (1.39)	0.0006 (1.36)
LEVERAGE	0.0002 (0.11)	0.0001 (0.11)	0.0001 (0.09)
RFR	1.3320 (15)***	1.3245 (15.79)***	1.3243 (15.78)***
BTMR	0.0250 (2.11)**	0.0201 (1.77)*	0.0201 (1.77)*
INDUSTRY	No	Yes	Yes
R-SQUARED	0.1243	0.1869	0.187
F-STATISTICS	47.91	23.84	22.54
P-VALUE	0.0000	0.0000	0.0000
N	3718	3718	3718

7.4.2.3 Regression of the First Model Using Modified Jones Model as a Proxy Measure of Transparency

Using the Modified Jones model, three versions of the model were used. The first model is without the interaction between IFRSA and ERMIL (IFRSA * ERMIL), and without the industry factor. The second regression model includes the industry factor. Finally, the last regression model includes the interaction term and industry factor. Table (13) below represents the multiple regression for the following model, using Modified Jones model as a measure proxy for transparency:

$$TRAN_{iy} = \alpha_0 + \alpha_1 IFRSA_{iy} + \alpha_2 ERMIL_{iy} + \alpha_3 (IFRSA_{iy} * ERMIL_{iy}) + CONTROLS_{iy} + e_{iy}$$

The first column represents the regression results for the first model using Modified Jones Model as a proxy for transparency, excluding the interaction term and industry factor from the model. The estimated model is suitable for sample data, since F-statistic is 47.44 and the independent variables significantly explain the variation in the dependent variable. Also, the independent variables explain about 12% of changes in the dependent variable ($R^2 = 0.124$).

The results including the industry factor in the model as shown in column 2, indicate that the estimated model is also suitable for sample data and the independent variables do significantly explain the variation in transparency (F-statistic = 23.98). R^2 shows that the independent variables are explaining 19% of changes in the dependent variable.

Chapter 7: Results

Additionally, when including the industry factor and the interaction term to the model as shown in column 3, the results also indicate that the model is suitable and independent variables do significantly explain the variation in dependent variable (F-statistic=22.72). The independent variables explain 19% of changes in the dependent variable.

The results of IFRS mandatory adoption show that it has a strong statistically significant positive effect on transparency in the three columns. This means that the adoption of IFRS by the firm management, increases earning management and decreases transparency by 100% at 1% level of significance for the three columns. This result is in line with the research expectations, since this study expects no statistically positive influence on firm disclosures transparency in the mandatory adoption of IFRS period. As mentioned before, an explanation for this result is that Australian firms adopt IFRS for false signalling about their transparency for stakeholders.

Furthermore, ERMIL shows a positive statistically significant effect that ranges between 2% and 6% in the three columns. The highest coefficient for ERMIL is in the first column, implying that the model excluding the industry factor and interaction term, has the highest value. However, all of these values are not significant. This means there is no statistical effect of adopting higher level of ERM, on firm transparency. An explanation for this result is that the Australian firms may commit an error in the application of ERM, or that adopting higher level of ERM by the firm management may not signal to stakeholders about high quality reports of the firm. For the three columns, the endorsement date and leverage have a negative effect on transparency. The coefficients for the endorsement date ranged between 8% and 9%, but they are not significant. The highest value reported is in the third column, implying that the model including the interaction term and industry factor has the highest coefficient for the endorsement date. Additionally, leverage results show a very weak negative statistically insignificant effect on transparency, that ranges between 0.0000 and 0.0001.

Return variability, risk-free rate and book-to-market ratio results, show a positive statistically significant effect on transparency in the three columns. Return variability has a weak coefficient that ranges between 0.0006 and 0.0010 at 5% level of significance for the first column, but it is not significant for the second and third columns. Furthermore, the increase in risk-free rate by one unit, increases earning

Chapter 7: Results

management and decreases transparency by approximately 140% at 1% level of significance in the three columns. Finally, book to market ratio effect ranges between 2% to 3% in the three columns, at 10% level of significant in the three cases.

Table 13: Regression Results for the First Model Using Modified Jones Model.

Model 1	1	2	3
_CONSTANT	-7.4640 (-12.91) ^{***}	-8.2233 (-14.36) ^{***}	-8.2485 (-14.63) ^{***}
IFRSA	1.0377 (15.66) ^{***}	1.0389 (15.62) ^{***}	1.0866 (7.93) ^{***}
ERMIL	0.0610 (1.53)	0.0266 (0.69)	0.0424 (1.21)
FRRS*ERMIL			-0.0270 (-0.38)
ENDO	-0.0896 (-0.9)	-0.0935 (-0.95)	-0.0941 (-0.96)
VOLATILITY	0.0010 (2.18) ^{**}	0.0006 (1.3)	0.0006 (1.29)
LEVERAGE	-0.0001 (-0.01)	-0.0000 (-0.01)	-0.0000 (-0.03)
RFR	1.4048 (15.08) ^{***}	1.3964 (15.91) ^{***}	1.3963 (15.9) ^{***}
BTMR	0.0315 (2.4) ^{**}	0.0262 (2.1) ^{**}	0.0262 (2.09) ^{**}
INDUSTRY	No	Yes	Yes
R-SQUARED	0.124	0.1905	0.1905
F-STATISTICS	47.44	23.98	22.72
P-VALUE	0.0000	0.0000	0.0000
N	3718	3718	3718

7.4.2.4 Regression of the Second Model Using Accruals as a Proxy Measure of Transparency

Table (14) provides the regression results for the second model. As previously, the analysis was performed in three stages; the first one represents the estimated model excluding the industry factor and interaction term. The second stage included the industry factor. Whereas, the third stage included the interaction term and industry factor. The year factor was not as an independent variable because there is high

Chapter 7: Results

correlation between the year factor and IFRS mandatory adoption since it depends on the years. Table (14) below represents the multiple regression for the following model, using the accruals as a measure proxy for transparency:

$$K_{iY} = \alpha_0 + \alpha_1 IFRSA_{iY} + \alpha_2 ERMIL_{iY} + \alpha_3 TRAN_{iY} + \alpha_4 (IFRSA_{iY} * ERMIL_{iY}) + CONTROLS_{iY} + \varepsilon_{iY} \dots 5$$

The three columns as presented in Table (14) indicate that the models are suitable for sample data and the independent variables do significantly explain the variation of cost of equity capital (F-statistic = 17.73, 13.76, 13.03 respectively). R² results show that the independent variables explain 4% of changes in the dependent variable. This means that the explanation power of the three models are low.

The analysis of the effects of the independent variables on cost of equity capital indicates that IFRS mandatory adoption shows a positive statistically significant effect on cost of equity capital in the three columns. The mandatory adoption of IFRS increases the cost of equity capital by about 14.0 at 1% level of significance. This result is in line with the research expectations, since the researcher expects that the adoption of IFRS alone will not decrease cost of equity capital. Daske et al. (2008) support this result by indicating a significant increase in cost of capital for firms that are forced to adopt IFRS. Although Houque, et al. (2016) and Li (2010), found a significant reduction in cost of equity capital after the mandatory adoption of IFRS.

ERMIL has a positive but insignificant effect on cost of equity in the first model (the first column) which exclude the industry factor and interaction term. By increasing ERMIL of one unit, cost of equity capital will increase by about 16%, although it is not significant. The second column shows an insignificant positive effect of ERMIL on the cost of equity capital (coefficient = 0.1452). However, the third column that represents the regression analysis of the model including the interaction term and industry factor, shows an insignificant negative effect of ERMIL on the cost of equity capital of about 4%. Which implies that implementing ERM alone by Australian firms, has no statistically significant effect on the cost of equity capital.

For the interaction term in the third column, it indicates a positive though insignificant effect on cost of equity capital (coefficient=33%). Thus, by implementing higher level of ERM under IFRS mandatory adoption period, the cost of equity capital increased, but this result is not statistically significant. This result is

Chapter 7: Results

not in line with the research hypothesis, since the research expects a decline in cost of equity capital in the period of IFRS mandatory adoption under the implementation of higher level of ERM, although the regression results in Table (11) showed an insignificant effect of the interaction term (IFRS * ERMIL) on transparency (as measured by Accruals). This implies that implementing higher level of ERM under IFRS adoption period, has no statistically significant effect on transparency and as a result, has no effect on cost of equity capital. A reason behind this result is that ERM under IFRS period does not capture firm incentives to be transparent, which as a result, is not recognised by stakeholders.

Accruals, the proxy measure of transparency as defined previously, has a negative significant effect on the cost of equity capital at 1% level of significance in the three columns. Thus, the increase in accruals - decrease transparency - by one unit, decreases cost of equity capital by 30% of the unit. This result is not expected since the decrease in transparency must increase information asymmetry and signals a negative image to stakeholders. Consequently, investors use a higher rate to discount their expected future cash flows, which increase cost of equity capital.

The endorsement date has a negative significant effect on the cost of equity capital in the second and third columns only. Thus, the increase in the endorsement date by one unit, decreases the cost of equity capital by 100% for the second and third models (second and third columns). The coefficient is significant at 1% level of significance, but for the first model (first column), it shows no significance for the endorsement date. This result is in line with the research expectations. Thus, the adoption of IFRS in the endorsement date, gives the firm an advantage by reducing the cost of equity capital of the firm. Which means that the adoption of IFRS in the endorsement date has an incremental effect on cost of equity capital for Australian firms before the mandatory adoption date of IFRS.

For the return variability, it was found to have a weak negative effect on the cost of equity capital at 10% level of significance in the first model, but it is not significant for the second and third models (coefficients = 0.0100 for the three columns). This result contradicts previous research findings. For example, Daske et al (2008) and Daske et al (2013), found a positive effect of return variability on the cost of capital and this is logical since the increase of return volatility reduces the confidence of investors of the firm stocks, and consequently, makes them use a lower rate to discount the future cash flows of these stocks.

Chapter 7: Results

Leverage is found to not significantly affect cost of equity capital. It has a weak coefficient of about 0.008 in the three models (columns). This result is not in line with the previous research. For example, Li (2010) and Daske et al (2013), found a positive effect of leverage on the cost of equity capital.

Risk-free-rate has a statistically significant negative effect on the cost of equity capital at 10% level of significance for the second and third models, but it is not statistically significant for the first model. Its coefficient ranges between 67% and 73% in the three models. Although, Daske et al (2008) found a positive effect of risk-free rate on equity capital. Explanation for this contradiction is that when interest rate increases in Australia, investors will invest their money in banks to get a higher rate of interest, which leads to reduced demand for firms' stocks and as a result, reduces the rate to discount their money, and this leads to decreasing cost of equity capital.

The last measure of the models is the book-to-market ratio. In this regard, Table (15) shows that it has a significant negative effect on the cost of equity capital at 5% level of significance for the second and third models. But it is not significant for the first model. The increase in the book-to-market ratio by one unit, decreases the cost of equity capital by 22% of the unit for the three models. Daske & Gebhardt, (2006) found that the book-to-market ratio positively affects the cost of capital, whilst Houque et al., (2016) support this research results by finding a negative effect. An explanation for this result, is that the increase in book-to-market ratio does not encourage investors to invest in the firm stock, which leads to a reduction in the rate to discount their investments.

Table 14: Regression Results for the Second Model Using Accruals

Model 2	1	2	3
_CONSTANT	13.2736 (1.93)*	16.5651 (3.09)***	16.8754 (3.12)***
IFRSA	14.4158 (10.07)***	14.4048 (12.7)***	13.8150 (6.58)***
ERMIL	0.1633 (0.29)	0.1452 (0.25)	-0.0492 (-0.43)
FRRS*ERMIL			0.3336 (0.34)
ABS_ACCRUALS	-0.3066 (-2.58)***	-0.3010 (-7.07)***	-0.3012 (-7.05)***

ENDO	-1.0710 (-0.57)	-1.0236 (-3.89)***	-1.0169 (-3.91)***
VOLATILITY	-0.0152 (-1.71)*	-0.0131 (-1.49)	-0.0130 (-1.48)
LEVERAGE	0.0083 (0.43)	0.0082 (0.36)	0.0085 (0.37)
RFR	-0.7323 (-0.65)	-0.6775 (-1.66)*	-0.6756 (-1.65)*
BTMR	-0.2144 (-1.48)	-0.2253 (-2.56)**	-0.2249 (-2.55)**
INDUSTRY	No	Yes	Yes
R-SQUARED	0.0368	0.0385	0.0385
F-STATISTICS	17.73	13.76	13.03
P-VALUE	0.0000	0.0000	0.0000
N	3718	3718	3718

7.4.2.5 Regression of the Second Model Using Jones Model as a Proxy Measure of Transparency

Table (15) presents the regression analysis results for the second model. The analysis was performed for three stages as before. The first stage represents the estimated model excluding the industry factor and the interaction term. The second stage included the industry factor, and the third stage included the interaction term and industry factor. The researcher did not include the year factor as an independent variable, because there is high correlation between the year factor and IFRS mandatory adoption since it depends on the years. Table (15) represents the multiple regression results for the following model, using Jones model as a measure proxy for transparency:

$$K_{iY} = \alpha_0 + \alpha_1 IFRSA_{iY} + \alpha_2 ERMIL_{iY} + \alpha_3 TRAN_{iY} + \alpha_4 (IFRSA_{iY} * ERMIL_{iY}) + CONTROLS_{iY} + \varepsilon_{iY} \dots 5$$

The F-value for the three models in Table (15) indicate that these models are suitable for the sample data, and the independent variables significantly explain the variation in the cost of equity capital as F-values for the first, second and third model, and are 32.04, 14.14 and 13.39 respectively. All are significant at 1% level of significance. Additionally, the explaining power of the three models is approximately 4%, which implies a weak explanation power of the models.

Chapter 7: Results

In the analysis of the effects of the independent variables on cost of equity capital using Jones Model as a proxy measure of transparency, IFRS mandatory adoption shows a statistically significant positive effect on the cost of equity capital in the three columns. The mandatory adoption of IFRS increases the cost of equity capital by about 15.00 at 1% level of significant. This result is going toward the research expectations, since the adoption of IFRS alone does not decrease cost of equity capital. Daske et al. (2008) supported this result by indicating that a significant increase in cost of capital for firms that are forced to adopt IFRS. Although, Houque et al. (2016) and Li (2010) found a significant reduction in cost of equity capital after the mandatory adoption of IFRS. An explanation for this result is that firms adopt IFRS for false signalling to stakeholders about a high quality report, and this is recognised by stakeholders, which leads them to discount their investment at higher rate, which increases the cost of equity capital.

ERMIL has a positive insignificant effect on cost of equity in the first and second models (the first and second columns). But in the third model, where that includes interaction term and industry factor, the effect on cost of equity capital is negative. Thus, in the first and second columns, increasing ERMIL by one unit, increases the cost of equity capital by about 16% and 11% respectively. However, these results are not statistically significant. However, the regression analysis of the model that includes the interaction term and industry factor, shows a non significant negative effect of ERMIL on the cost of equity capital of about 4%. These results do not support the research expectation, as implementing higher level of ERM reduces cost of equity capital. Thus, adopting higher level of ERM may capture firm incentives to be more transparent and signal to stakeholders about firm transparency, which leads the investors to use low rate to discount their investments.

For the interaction term in the third column, it indicates a positive insignificant effect on cost of equity capital (coefficient = 0.2724). This result is not in the hypothesised direction, since the cost of equity capital is expected to decline in the period of IFRS mandatory adoption under the implementation of higher level of ERM. A reason for this is implementing higher level of ERM under IFRS period, does not capture firm incentives to be transparent and have high quality reporting, which is not encouraging the investors to use low discount rate for their investments, and as a result, increased cost of equity capital. In the same line, the results of the interaction term in Table (15) also shows a negative effect on transparency, which implies that

Chapter 7: Results

implementing a higher level of ERM under the mandatory adoption period of IFRS, does not capture transparency.

Jones Model measurement which is a proxy measure of transparency, has a negative significant effect on cost of equity capital at 1% level of significance in the three columns. Thus, the increase in earning management -decrease in transparency- by one unit, decreases the cost of equity capital by about 120% of the unit. This is not expected, since the decrease in transparency must increase information assymetry, and signals a negative image for stakeholders, and as a result, investors use a higher rate to discount expected future cash flows. An explanation for this result is that the transparency may not be recognised by investors in their decisions to discount cash flows.

The endorsement date has a negative significant effect on cost of equity capital. Thus, the increase in the endorsement date by one unit, leads to a decrease in the cost of equity capital by 99%, 95%, and 95% for the three models respectively. All are significant at 1% level of significance. This result goes with the research expectations. Thus, the adoption of IFRS in the endorsement date, gives the firm an advantage by reducing its cost of equity capital, which implies that the adoption of IFRS in the endorsement date has an incremental effect on cost of equity capital for Australian firms, before the mandatory adoption date of IFRS.

Regarding return variability, it has to have a weak negative effect on the cost of equity capital at 10% level of significance in the first model. However, in the 2nd and 3rd models, it was not statistically significant (coefficient = 0.0100 for the three columns). This result is not in the direction of previous research. For example, Daske et al (2008) and Daske et al (2013), found a postive effect of return variability on cost of capital. This is logical since the increase of return volatility increases information assymetry, and reduces the confidence of investors in the firm stock, and consequently, make them use a lower rate to discount the future cash flows.

Leverage has a statistically insignificant effect on the cost of equity capital in the three models. It has a weak coefficient of about 0.0080 in the three models. This result does not comply with the direction of previous research, for example, Li (2010) and Daske et al (2013) found a positive effect of leverage on the cost of equity capital.

Chapter 7: Results

Risk-free-rate has a positive but not statistically significant affect on the cost of equity capital. Its coefficient ranges from 50% to 58% in the three models. On the other side, Daske et al (2008) found a positive effect of risk-free-rate on the cost of equity capital. Therefore, the increase in the risk-free-rate reduces the confidence in the market, and investors will use a high discount rate to discount the future cash flows of the firm, which in turn results in an increase in the cost of equity capital for the firm.

For book-to-market ratio, Table (15) shows that it has a significant negative effect on cost of equity capital at 5% level of significance, where the increase in the book-to-market ratio by one unit decreases the cost of equity capital by about 19%, 20%, and 20% of the unit for the three models respectively. Book-to-market ratio was found to be positively associated with the cost of equity capital by Daske et al. 2006, but Houque et al (2016) found a negative impact of this ratio on the cost of equity capital.

Table 15: Resgression Results for the Second Model Using Jones Model.

Model 2	1	2	3
_CONSTANT	6.7237 (2.30)**	9.1283 (1.66)*	9.3870 (1.70)*
IFRSA	15.2746 (12.58)***	15.2917 (12.6)***	14.8094 (6.93)***
ERMIL	0.1619 (0.28)	0.1125 (0.2)	-0.0463 (-0.4)
FRRS*ERMIL			0.2724 (0.28)
ABS_EM_JOHN	-1.2418 (-8.24)***	-1.2625 (-8.26)***	-1.2620 (-8.26)***
ENDO	-0.9977 (-3.88)***	-0.9592 (-3.54)***	-0.9534 (-3.56)***
VOLATILITY	-0.0146 (-1.67)*	-0.0129 (-1.47)	-0.0129 (-1.46)
LEVERAGE	0.0089 (0.4)	0.0088 (0.39)	0.0091 (0.4)
RFR	0.5007 (1.11)	0.5839 (1.26)	0.5846 (1.26)
BTMR	-0.1933	-0.2099	-0.2096

	(-2.26)**	(-2.38)**	(-2.38)**
INDUSTRY	No	Yes	Yes
R-SQUARED	0.0412	0.0427	0.0427
F-STATISTICS	32.04	14.14	13.39
P-VALUE	0.0000	0.0000	0.0000
N	3718	3718	3718

7.4.2.6 Regression of the Second Model Using Modified Jones Model as a Proxy Measure of Transparency

Table (16) presents the regression analysis results for the second model using Modified Jones Model as a proxy measure of transparency. The analysis was also performed in three stages. The first model represents the estimated model excluding the industry factor and interaction term. The second model includes the industry factor, and the third model includes the interaction term and industry factor. The researcher did not include the year factor as an independent variable, because there is high correlation between the year factor and IFRS mandatory adoption since it depends on the years. Table (16) represents the multiple regression for the following model, using Modified Jones Model as a measure proxy for transparency:

$$K_{iY} = \alpha_0 + \alpha_1 IFRSA_{iY} + \alpha_2 ERMIL_{iY} + \alpha_3 TRAN_{iY} + \alpha_4 (IFRSA_{iY} * ERMIL_{iY}) + CONTROLS_{iY} + \varepsilon_{iY} \dots 5$$

Results in Table (16) imply that the improvement in prediction due to the model is large, and the difference between the model and the observed data is small, since F-value for the first model equals 32.01, and 14.16 for the second model, and finally 13.42 for the last model. Therefore, the three models are suitable for the sample data, and the independent variables significantly explain the variation in the cost of equity capital. Additionally, the explaining power of the three models is also approximately 4%, which implies a low predictive power of the three models.

The analysis of the effects of the independent variables on cost of equity capital using Modified Jones Model as a proxy measure of transparency, reveals that IFRS mandatory adoption shows a statistically significant positive effect on the cost of equity capital in the three columns. The mandatory adoption of IFRS increases the cost of equity capital by about 15.00 at 1% level of significance. This result is in line

Chapter 7: Results

with the research expectations, since the researcher expects that the adoption of IFRS alone does not decrease cost of equity capital. Daske et al. (2008) support this result by indicating a significant increase in the cost of equity capital for firms that are forced to adopt IFRS. Although Houqe et al. (2016) and Li (2010), found a significant reduction in cost of equity capital after the mandatory adoption of IFRS. An explanation for this result is that Australian firms adopt IFRS for false signalling for stakeholders about high quality reporting, which is recognised by investors leading them to use high rates to discount their cash flows and as a result, increase cost of capital.

ERMIL has a positive but insignificant effect on the cost of equity in the first and second models. However, in the third model, it turned out to be a negative effect on the cost of equity capital. Thus, in the first and second models, increasing ERMIL of one unit, lead to an increase in the cost of equity capital by about 0.1600 and 0.1100 respectively, but these results are not statistically significant. These results do not support the research expectations, as this study expects a decline of the cost of capital around the implementation of higher level of ERM. However, in the third model which represents the regression analysis of the model, including the interaction term and industry factor, shows an insignificant negative effect of ERMIL on the cost of equity capital of about 0.0500. This result also does not support the study expectation. An explanation for these results is that Australian firms wrongly implementing ERM, or implementing ERM by Australian firms is not recognised by investors.

The interaction term result in the third model indicates an insignificant positive effect on the cost of equity capital (coefficient = 0.2800). This result turns out to not be in the hypothesised direction, as the study expects a decline in the cost of equity capital in the period of IFRS mandatory adoption under the implementation of higher level of ERM. These results are not going in the same direction of the research hypothesis in the case of using Modified Jones Model as a proxy measure of transparency. An explanation for these results is that implementing higher level of ERM in IFRS period by Australian firms, does not achieve high quality reporting - high incentives to be transparent- , which as a result, does not encourage investors to use low discount rate to discount future cash flows, and cost of equity increases.

Modified Jones model measurement which is a proxy measure of transparency, has a significant negative effect on the cost of equity capital at 1% level of significance in the three models. Therefore, the increase in earning management -decrease in

Chapter 7: Results

transparency- by one unit, lead to a decrease in the cost of equity capital by about 1.200 of the unit. This result is not expected, as the increase in transparency should reduce information asymmetry, and signal a positive image for stakeholders, and as a result, investors use a lower rate to discount expected future cash flows. An explanation for this result is that increasing transparency of disclosures may not be recognised by investors, which lead them to use high discount rate for future cash flows.

The endorsement date has a significant negative effect on the cost of equity capital. Thus, by increasing the endorsement date by one unit, the cost of equity capital decreases by 0.9700, 0.9300, and 0.9300, for the three models respectively, at 1% level of significance. This result is going with the research expectation. Thus, the adoption of IFRS in the endorsement date, gives the firm an advantage by reducing the cost of equity capital of the firm, which means that the adoption of IFRS in the endorsement date, has an incremental effect on the cost of equity capital for Australian firms before the mandatory adoption date of IFRS.

Return variability found to have a weak negative effect on the cost of equity capital at 10% level of significance in the first model, but in the second and third model, it found to be not statistically significant (coefficient = 0.0100 for the three models). This result is not in the direction of previous research. For example, Daske et al (2008) and Daske et al. (2013), found a positive effect of return variability on cost of capital. This research result is justified as the increase in return volatility will reduce the confidence of the investors in the firm stock, which will result in the investors using lower rate to discount the future cash flows of the firm stock -lower cost of capital-.

Leverage results show that it insignificantly affects the cost of equity capital in the three models. It has a weak coefficient of about 0.0080 in the three models. These results are not in line with the direction of previous research, for example, Li (2010) and Daske et al (2013) found a positive effect of leverage on cost of equity capital.

Risk-free-rate has an insignificant positive effect on the cost of equity capital. It has a coefficient range between 0.5400 to 0.6300 in the three models. On the other hand, Daske et al (2008) found a positive effect of risk-free-rate on equity capital. Thus, increase in the risk-free-rate will encourage investors to demand higher discounted rate to discount their future cash flows, which will result in increased cost of capital for the firm.

Chapter 7: Results

For book-to-market ratio, Table (16) shows that it has a significant negative effect on the cost of equity capital, at 5% level of significance. An increase in the book-to-market ratio by one unit, leads to a decrease in the cost of equity capital by about 0.1800, 0.2000, and 0.2000 of the unit, for the three models. Book-to-market ratio found to be positively associated with the cost of capital by Daske et al. (2006), but Houque et al (2016) found a negative impact of book-to-market ratio on the cost of capital.

Table 16: Regression Results for the Second Model Using Modified Jones Model

Model 2	1	2	3
_CONSTANT	6.4440 (2.18)	8.7576 (1.59)	9.0276 (1.63)
IFRSA	15.3045 (12.57) ^{***}	15.3296 (12.6) ^{***}	14.8237 (6.93) ^{***}
ERMIL	0.1643 (0.29)	0.1132 (0.20)	-0.0534 (-0.46)
FRRS*ERMIL			0.2858 (0.29)
ABS_EM_JOHN	-1.2083 (-8.69) ^{***}	-1.2355 (-8.57) ^{***}	-1.2352 (-8.57) ^{***}
ENDO	-0.9743 (-3.79) ^{***}	-0.9364 (-3.46) ^{***}	-0.9304 (-3.47) ^{***}
VOLATILITY	-0.0146 (-1.67) [*]	-0.0129 (-1.47)	-0.0129 (-1.47)
LEVERAGE	0.0087 (0.39)	0.0086 (0.38)	0.0089 (0.39)
RFR	0.5439 (1.19)	0.6372 (1.36)	0.6381 (1.36)
BTMR	-0.1863 (-2.18) ^{**}	-0.2029 (-2.31) ^{**}	-0.2026 (-2.30) ^{**}
INDUSTRY	No	Yes	Yes
R-SQUARED	0.0416	0.0431	0.0431
F-STATISTICS	32.1	14.16	13.42
P-VALUE	0.0000	0.0000	0.0000
N	3718	3718	3718

7.5 Hypothesis Testing

The previous sections of this chapter contained a discussion of the descriptive statistics, diagnostic tests, correlation analysis and multiple regression analysis that were done. In this section, the hypothesis testing is discussed more thoroughly.

For the first hypothesis, which assumes that *the mandatory adoption of IFRS by the Australian firms has no statistically positive influence on firm disclosures transparency compared with GAAP adoption*. In this hypothesis, it is expected that there is no influence of mandatory adoption of IFRS on disclosure transparency comparing with GAAP. The point of view is that the adoption of IFRS alone may not achieve transparency by the firm management, because the management may find adopting the IFRS an attractive tool for false signalling of high quality reporting, and in this case, the aim becomes to harmonise incentives rather than standards. Tables (11), (12) and (13) included the results for the first hypothesis. They show that IFRS has a positive statistically significant effect on transparency for the three models. Namely, Accruals, Jones Model and Modified Jones Model, as proxies for transparency. This indicates that adopting IFRS by Australian firms increases earnings management, and as a result decreases transparency. Consequently, the null hypothesis is rejected and the alternative one is accepted, implying that IFRS mandatory adoption is estimated to have a positive significant effect on transparency for Australian firms. An explanation can be discussed for the contradictory result with past literature, in that Australian firms may deliberately adopt IFRS for false signaling of high quality reporting, and this adoption of IFRS does not direct their incentives to be transparent.

The second main hypothesis assumes that *implementing a higher level of ERM under the mandatory adoption of high quality standards (IFRS) by Australian firms listed on the ASX, has a statistically negative influence on firm cost of equity capital*. Under this main hypothesis, there are two sub-hypotheses which are as follows:

H1a Implementing a higher level of ERM under the mandatory adoption of high-quality standards (IFRS) by Australian firms listed on the ASX, has a statistically positive influence on firm disclosures transparency.

H1b Implementing a higher level of ERM, negatively affects the cost of equity capital in the IFRS adoption period, as a response to its indirect effect on disclosures transparency.

Chapter 7: Results

For the first sub-hypothesis, it is expected that the implementation of higher level of ERM under the period of the adoption of IFRS, increases the transparency for the Australian firms. The point here is that one of the ERM pillars is that the transparency of disclosures and risk-taking strategy were found to be positively related to managers' incentives (Coles, et al., 2006; Wright, et al., 2007), also, the management philosophy is an integral part of fair value accounting, to achieve transparent disclosures (Jones & Luther, 2008; Barlev & Haddad, 2003). Therefore, the adoption of ERM by the firm management, may indicate its willingness to have more transparent disclosures, and the implementation of ERM alongside the IFRS adoption period, may achieve the objective of IFRS from the view of incentives.

When using the accruals as a proxy measure of transparency, the results show a statistically significant positive effect of (ERMIL*IFRS) on transparency (See Table 11). Which implies that the implementation of higher level of ERM under the adoption period of IFRS, increases firm disclosures transparency. Although, by using the Jones Model and Modified Jones Model as proxies measures of transparency, the results show that (ERMIL * IFRS) has a negative significant effect on transparency (Tables (12) and (13)). For this reason, the alternative hypothesis is accepted when using the accruals, which suggests a positive effect of using ERM alongside with IFRS on firm disclosure transparency in the Australian market. Additionally, the hypothesis is rejected when using the Jones Model and Modified Jones Model, which implies that adopting ERM by Australian firms alongside IFRS adoption has a negative effect on firm disclosure transparency

For the second sub-hypothesis, it is expected that in the mandatory adoption period of IFRS, implementing higher level of ERM has a negative effect on the cost of equity capital through its indirect effect on transparency. In other words, implementing higher level of ERM alongside the adoption of IFRS, achieves the objective of IFRS by introducing more transparent reports to stakeholders, which consequently affects the decisions of investors by making them use a lower rate to discount the expected future cash flows, and, hence, reduces the cost of equity capital. The results show that (ERMIL * IFRS) has a statistically significant positive effect on the cost of equity capital for the three models (Tables (14), (15) and (16)). This implies that the hypothesis is rejected, and adopting higher level of ERM in the IFRS period by Australian firms leads investors to use higher rate to discount their cash flows, and as a result increases the cost of equity capital. An explanation for this issue is that the

Chapter 7: Results

investor may not have realized the reduction in transparency as a result of implementing higher level of ERM, and understanding the philosophy of ERM including its objectives, benefits, pillars, and theories is poor for financial reports users. As a result of these outcomes, the main second alternative hypothesis is expected to be rejected, implying positive effect of implementing ERM on firm cost of equity capital, under IFRS adoption period for Australian firms.

7.6 Chapter Summary

This chapter discussed the data analysis and findings of the study. It began with the descriptive analysis. After that, a multivariate regression analysis was performed starting with diagnostic checks. In this regard, testing the multicollinearity shows that there is no problem regarding this issue. Additionally, the assessment of normality of data indicated that the data was normally distributed. Also, the researcher did not find any problem related to heteroscedasticity and endogeneity. In order to answer the research questions, the researcher performed a testing for the research hypothesis. Correlation analysis and regression tests were performed to answer the research questions. The findings demonstrated that the null hypothesis H_0 (the mandatory adoption of IFRS by the Australian firms has no statistically significant positive influence on firm disclosures transparency compared with GAAP adoption) is accepted. Also, the research findings showed that H_{1a} (Implementing a higher level of ERM under the mandatory adoption of high-quality standards (IFRS) by Australian firms listed on the ASX, has a statistically positive influence on firm disclosures transparency) should be accepted in case of using the accruals as a proxy measure of transparency. Although, in the case of using Jones Model and Modified Jones Model as proxies for transparency, the alternative hypothesis was rejected. Finally the results show that implementing a higher level of ERM has a positive affect on the cost of equity capital in the IFRS adoption period (H_{1b}), which assumes the rejection of the alternative hypothesis. As a result, the researcher rejects the hypothesis of a reduction in the cost of equity capital in line with implementing higher level of ERM under IFRS adoption period for Australian firms. The next chapter includes a discussion of findings, current research limitations and future research.

CHAPTER 8: CONCLUSION

8.1 Introduction

The objective of this study is to investigate the role of ERM implementation level with regard to the economic consequences of IFRS adoption in the Australian context. This is done by testing the role of ERM before and after IFRS adoption on firm incentives to be transparent.

While doing so, **Chapter 1** of this study discussed the motivation of the study, through discussing several factors supporting testing the role of ERM implementation level, in the economic consequences implication around the adoption of IFRS. The chapter also presents a background which stimulates the need for incentives to be transparent, and the legal enforcement as factors, which play important roles in the economic consequences of IFRS adoption implication. Also, it presents the research questions, and the research objectives, and the importance of the study, and the research contribution. The chapter also outlines the structure of the thesis.

Chapter 2 of this study expressed the Australian content and ERM in the content. It begins with providing a general insight to Australia, and the application of ERM by Australian firms, and the standards that control the adoption of ERM in Australia. Then, the culture of Australian content and the organizational culture adopting ERM in Australia, were discussed in this chapter. Also, the role of the ASX in the legal and financial system, and in ERM system were presented. This is followed by a presentation of the accounting profession in Australia, and its development and committees. It also gives a brief review of the taxation system in Australia. Finally, the Australian capital market was discussed in line with ERM.

Chapter 3 of this study reviews the academic literature associated with the study objectives. Firstly, the chapter expressed the development of standards from the domestic GAAP to IFRS, and the factors that played a role in this development. Then it discussed the reporting quality literature of IFRS adoption, and then the economic consequences of IFRS adoption literature were presented. The chapter also negotiated around the linkage between ERM and financial reporting, and the role of risk taking strategy on firm incentives. Additionally, the chapter presents the literature that discusses the economic consequences of IFRS in Australia, and the research gap was concluded.

Chapter 4 provides a deep insight into the ERM system. It introduces the development history of ERM, and its definition, and a discussion about it. It also discusses the development of the vision from the traditional view of risk to the holistic view. The benefits of ERM were also discussed. Additionally, it reviews the literature around the measures of ERM system. Also, the legislative frameworks and theories of ERM were discussed. The chapter also covers the pillars of ERM as discussed by academic literature. Finally, the chapter summary.

Chapter 5 demonstrates the conceptual framework around the economic consequences implication. It presents agency theory as a motivation for this discussion, followed by a discussion of signalling theory.

Chapter 6 outlines the research design, details of data set, research methodology, methods and techniques. The research questions developed in Chapter 1 are formulated into testable hypotheses. This chapter explains the study period, the sources of data and all variables related to the study. The chapter also specifies the models for statistical analysis.

In **chapter 7**, the data are analyzed using statistical tests. The assumptions of the statistical analysis are described, the effect of IFRS adoption and the role of ERM implementation level, are examined. Firstly, the chapter provides a descriptive analysis of the data, followed by a diagnostic check, by testing multicollinearity, normality, heteroscedasticity, and outliers. Then, the correlation between the study variables was tested. And multivariate regression analysis was performed to test the research hypothesis, including the role of ERM in the association between IFRS and cost of equity capital.

This chapter summarizes the whole study and provides a deep analysis of the study. The remainder of this chapter is as follows, Section 9.2 introduces the discussion of findings. This is followed by the research contribution to literature and study in section 9.3. Section 9.4 discusses the limitations of the study, and section 9.5 introduces a direction for future research. Finally, the chapter summary has been discussed in section 9.6.

8.2 Discussion of Findings

Before discussing the study results, it is important to negotiate the Australian context case around IFRS and ERM. IFRS has been imposed to be adopted by Australian firms since 2005, the mandatory adoption of IFRS in Australia resulting in

Chapter8: Conclusion

better accounting quality than previously generally accepted Australian accounting principles, which as a result reduce earnings management (Chua, et al., 2012). In the same line, the complex environmental risk in Australia and the need for corporate governance following the collapse of large Australian firms, increased the attention by Australian firms to adopt ERM system, and increased the emphasis of regulatory bodies to offer guidelines and principles for ERM in Australia.

Many results can be concluded from this study. Firstly, this study provided evidence of the role of IFRS adoption period on transparency using three measures of transparency. IFRS mandatory adoption is found to be positively associated with earning management, and as a result decreases transparency. This result is not in line with the research hypothesis, since this study expects no effect of the adoption of IFRS on transparency. The reason for this expectation is that the harmonization of standards does not lead to the harmonization of incentives to be transparent, and management may find it attractive to adopt IFRS for false signalling of high quality reporting. An explanation for this outcome, is that investors may react to the adoption of IFRS by the Australian firms as a signal of more transparency incentives, which leads them to use lower rate to discount their cash flows.

The study provides evidence of the role of ERM on firm incentives to be transparent, under the IFRS period. The results indicate that ERMIL has a positive effect on transparency in IFRS period for Australian firms, in the case of using the accruals as a proxy measure of transparency (the first model), but this is not statistically significant. Although it provides evidence of a negative effect of ERMIL in IFRS period for Australian firms in the case of using the Jones Model and the Modified Jones Model as proxy measures for transparency (the second and third models), but this effect is also not statistically significant. The researcher expected a positive effect of ERMIL on transparency around IFRS adoption period, which means that implementing higher level of ERM by Australian firms in IFRS period, leads to increase in disclosures transparency. The point of view in this expectation is that the transparency problem requires an action or procedure and a selection of appropriate governance mechanism to capture incentives, and risk-taking strategy is positively associated with incentives given to managers (Coles, et al., 2006; Wright, et al., 2007). Furthermore, the new management philosophy for risk management, is an integral to fair value to achieve transparent disclosures (Jones & Luther, 2008; Barlev & Haddad, 2003). Additionally, one of the ERM pillars is the disclosure transparency (Acharyya

& Johnson, 2006). Also, academic literature supports a strong link between ERM and financial reporting process (Cohen, et al., 2017), which consequently justify implementing higher level of ERM as an important factor that may play a role on the association between adopting IFRS and capital market.. Thus, the adoption of ERM by the firm management and disclosing it through the financial reports, may reflect the management incentives to be transparent in its disclosures, which potentially captures incentives. Thus, it is expected that implementing higher level of ERM under IFRS adoption period is positively associated with more incentives to be transparent. Although, previous research found a positive effect of ERM on transparency (see for example; Donald & Christopher 2018). Many explanations can be concluded for these results. Firstly, investors may not react to the implementation of ERM as a signal point of increased transparency, which can be justified as a poor knowledge of ERM system by investors. Secondly, since ERM system is a new paradigm system and little known about the application of it by the management, so Australian firms may adopt ERM incorrectly or insufficiently, especially through disclosures, and as a result, they do not get the expected benefits from the adoption. For example; Ahmad et al., (2014) indicates that the majority of the Australian firms not only extensively implement ERM, but also extensively embed ERM into their corporate strategic processes.

In the research findings, ERMIL is found to be positively but insignificantly affecting the cost of equity capital in IFRS period for Australian firms. This result is not in line with the research hypothesis, and not expected. In the three models (accruals, Jones Model and Modified Jones Model), it has a positive and insignificant effect on cost of equity capital. One explanation for this result is that investors do not realize implementing ERM as a change of firm incentives to be transparent, and this is a result of their poor realizing of ERM philosophy. The point of view regarding expecting a negative effect of ERMIL on cost of equity capital, is that since ERMIL level has a positive impact on transparency, this means higher quality of reporting that is realized by investors, which affect their decision of reducing the discounted rate of the future cash flows, which as a result, reduces the cost of equity capital.

As a conclusion, the results of this study were mixed. IFRS is found to be positively associated with transparency for the three models. Although, ERMIL under IFRS period is found to have a not statistically significant positive effect (in the case of using the accruals), and negative effect on transparency (in the case of using Jones and Modified Jones Model). Finally, ERMIL under IFRS adoption period is found to

Chapter8: Conclusion

have no statistically significant positive effect on cost of equity capital for the three models. These results support that the adoption of IFRS by the Australian firms reflects their orientation toward more transparent disclosures, and this is realized by investors as a positive signal for more transparent incentives, whilst implementing ERM system by Australian firms is not realized by investors as a signal for more transparent disclosures, and as a result, does not have any effect on firm cost of equity capital. Also, these results offer that the implementation of ERM by Australian firms does not reduce the contractual costs between investors and management, whilst adopting IFRS do.

8.3 Contribution to Literature and Practice

8.3.1 Literature

This study aims to investigate empirically the role of ERM on firm disclosure transparency and as a result, on cost of equity capital in the Australian market. It adds a noteworthy value to the construction of literature. So, it builds on the argument around the financial reporting quality of IFRS adoption, through testing the effect of IFRS adoption on firm disclosure transparency. Also, it contributes to the argument about the economic consequences of IFRS adoption, by introducing ERM system as a proxy that captures the reporting incentives, which has not been discussed before as a managerial system that reflects incentives, and as a result, the effect of that on firm cost of equity capital, so it contributes to the capital market argument in Australia. . Since the reporting incentives are found as an important factor that control the capital market effects around the adoption of IFRS, the research chose to catch those reporting incentives using ERM system. Also, this study added to the literature by providing empirical evidence from the Australian market, which has a rare focusing and does not support the IFRS adoption (see for example; Goodwin, et al., 2008; Barth, et al., 1995) . Additionally, this study provides evidence of the benefits/costs of ERM system as a new risk management paradigm over the last two decades.

8.3.2 Practice

The implication of this study is that the possibility of implementing higher level of ERM under IFRS period, should be realized by investors as an increase of management incentives to be transparent, and encourages the investors to adopt

decisions for their investments. It also provides evidence that encourages managers to focus on ERM system and adopt more strategies to issue a specialized knowledge between employees of implementing ERM in a correct and sufficient way for the benefit of investors and firms. The results also support using the adoption of IFRS alone by investors, to build their decision regarding the future cash flows of the firm. Additionally, it encourages managers to adopt more strategies and techniques to be recognised by investors, which reflect managers incentives to be transparent. Furthermore, the study introduces the ability of ERM system to signal firm reporting incentives, which may then lead to improved market efficiency and reducing the costs between managers and stakeholders. Finally, it provides evidence for regulatory bodies in Australia to offer more risk management principles and guidelines that can be implemented clearly by Australian firms, to get the benefits of the implementation of those principles and guidelines on firms, investors, and as a result, on the capital market implication.

8.4 Research Limitations

In light of providing evidence about the role of ERM in the economic consequences of IFRS adoption, a number of limitations should be considered. Firstly, the research faced a problem in data availability. Some data from the sample between 2000 and 2010 was missing and not available, which reduced the sample data firms to 338 firms. Thus, using a big sample may provide more reliable findings. Moreover, the sample was restricted to the listed firms on the Australian Stock Exchange, and it ignored the unlisted firms, which may limit the generalisability of the findings. Another point is that from the investors' perception, the information behaviour of publicly listed firms is more than that of the unlisted firms. Another limitation is that due to the lack of accessibility to databases, some variables have been collected and calculated based on other criteria. For example, the cost of equity capital has been collected from the Bloomberg database as one measure using the capital assets pricing model, while in the previous literature, it has been collected using four estimated measures from I/B/E/S database (see for example, Daske et al 2008; Daske & Gebhardt, 2006).

Additionally, ERM is a new paradigm risk system, and it is still a premature system in Australia and all around the world. Thus, there is no quantitative conclusive and general measure for the implementation of ERM. For this reason, the researcher

built based on the empirical literature, by using the factors that were empirically associated significantly and positively with ERM practices.

8.5 Directions for Future Research

The research recommends that future research be undertaken in the following areas: Firstly, ERM was not found to be negatively associated with cost of capital in the Australian firms, so using other techniques and/or strategies other than ERM may solve this problem, and capture incentives. Secondly, the perception of investors about ERM system has attracted less attention by academics. So, future research may focus more on the perception and culture of investors and managements of ERM system and its techniques, benefits, measures, and importance. This may offer economic consequences for the implementation of ERM by firm management. Thirdly, the area of the economic consequences of IFRS in Australia did not meet deep investigation, so the researcher recommended providing more evidence from the Australian market. Fourthly, the researcher may advise conducting the future research using ERM to capture incentive using a bigger sample and different sample period. Fifthly, it is recommended to use the estimated measures of cost of capital from I/B/E/S database.

REFERENCES

- AASB, 2016. *Australian Accounting Standards Board*. [Online] Available at: <https://www.aasb.gov.au/>[Accessed 12 9 2017].
- Abeysekera, I., 2006. Accounting Meets Politics: Theoretical Interpretation of Key Events (1940-2003) of Accounting Profession in Australia. *Australian Accounting Review*, 16(1), pp. 66-74.
- Abdel-kader, M., & Luther, R., 2008. The Impact of Firm Characteristics on Management Accounting Practices: A UK-Based Empirical Analysis. *The British Accounting Review*. 40(1), pp. 2-27.
- Acharyya, M. & Johnson, J., 2006. Investigating the Development of Enterprise Risk Management in the Insurance Industry: An Empirical Study of Four Major European Insurers. *The Geneva Papers on Risk and Insurance*, 4(special edition), pp. 55-80.
- ACNC-AUSTRAC, 2017. *Australia's Non-Profit Organization Sector-Money Laundering/Terrorism Financing*. [Online] Available at: <http://www.austrac.gov.au/sites/default/files/npo-risk-assessmentFINAL-web.pdf> [Accessed 12 2 2019].
- Adams, A., Fries, S. & Simnett, R., 2011. The journey towards integrative reporting. *Accountant's Digest*, Volume 558, pp. 1-40.
- Adkisson, R. V. & Mohammed, M., 2014. Tax structure and state economic growth during the Great Recession. *The Social Science Journal*, 51(1), pp. 79-89.
- Agrawal, A. & Mandelker, G., 1987. Managerial Incentives and Corporate Investment and Financing Decisions. *The Journal of Finance*, 42(4), pp. 823-837.
- Ahmad, A., Neel, M. & Wang, D., 2013. Does Mandatory Adoption of IFRS Improve Accounting Quality? Preliminary Evidence. *Contemporary Accounting Research*, 30(4), pp. 1344-1372.
- Ahmad, S., Ng, C. & McManus, L., 2014. Enterprise risk management (ERM) implementation: some empirical evidence from large Australian companies. *Procedia-Social and Behavioral Sciences*, Volume 164, pp. 541-547.
- Agoglia, C., Douppnik, T. & Tsakumis, G., 2011. Principles-Based Versus Rules-Based Accounting Standards: The Influence of Standard Precision and Audit Committee Strength on Financial Reporting Decisions. *The Accounting Review*, 86(3), pp. 747-767.

References

- Alin, A., 2010. Multicollinearity. *Wiley Interdisciplinary Review*, 2(3), pp. 370-374.
- Altamure, J., Beatty, A. & Weber, J., 2005. The effects of accelerated revenue recognition on earnings management and earnings informativeness: Evidence from SEC staff accounting bulletin no.101. *The Accounting Review*, 80(2), pp. 373-401.
- Amihud, Y. & Lev, B., 1981. Risk Reduction as a Managerial Motive for Conglomerate Mergers. *Bell Journal of Economics*, 12(2), pp. 605-617.
- Arena, M., Arnaboldi, M. & Azzone, G., 2010. The organizational dynamics of enterprise risk management. *Accounting, Organizations and Society*, 35(7), pp. 659-675.
- Armstrong, C. S., B. E., Jagolinzer, A. D. & Riedl, E. J., 2010. Market Reaction to the Adoption of IFRS in Europe. *The Accounting Review*, 85(1), pp. 31-61.
- Ashbaugh, H., & Pincus, M., 2001. Domestic Accounting Standards, International Accounting Standards, and the Predictability of Earnings. *Journal of Accounting Research*. 39(3). Pp. 417-434.
- ASIC, 2017. *Australian Securities and Investments Commission*. [Online] Available at: <https://asic.gov.au/> [Accessed 14 1 2018].
- AS/NZS 4360:2009, 2009. Risk Management-Principles and Guidelines. https://infostore.saiglobal.com/preview/293451727151.pdf?sku=119718_SAI_G_AS_AS_274522.
- ASX Corporate Governance Council, 2006. *Principles of Good Corporate Governance and Good Practice Recommendation: Exposure Draft of Changes, 1-42*, Australia: Australian Stock Exchange.
- Australia Standards, 2004. *Risk Management AS/NZS 4360:2004*, Sydney: Standards Australia International Ltd.
- Australian Treasurer., 1998. Task Force on International Financial Reform. Commonwealth of Australia, Report, Canberra.
- Australian Bureau of Statistics, 2016. ABS. [Online] Available at: <https://www.abs.gov.au/>[Accessed 16 8 2017].
- Australian Electoral Commission, 2007. AEC. [Online] Available at: <https://www.aec.gov.au/>[Accessed 1 9 2017].
- Australian Museum, 2009. *Australian Museum*. [Online] Available at:

References

- https://australianmuseum.net.au/?gclid=EAJaIQobChMliMikicrd4AIVDKyWCh2LkwNXEAAAYASAAEgK7kvD_BwE[Accessed 25 8 2017].
- Australian Securities Exchange, 2017. *Regulatory Authorities in Australia*. [Online] Available at: <https://www.asx.com.au/regulation/regulatory-compliance/regulation-australia.htm>[Accessed 25 9 2017].
- Australian Stock Exchange, 2016. ASX. [Online] Available at: <https://www.asx.com.au/regulation/rules-guidance-notes-and-waivers.htm>[Accessed 15 9 2016].
- Australian Taxation Office, 2018. GST. [Online] Available at: <https://www.ato.gov.au/Business/GST/>[Accessed 20 1 2019].
- Bacharach, S. B., 1989. Organizational Theories: Some Criteria for Evaluation. *The Academy of Management Review*, 14(4), pp. 469-515.
- Bailey, W., Anderwkarolyi, G. & Salva, C., 2006. The economic consequences of increased disclosure: evidence from international cross-listings. *Journal of Financial Economics*, 81(1), pp. 175-213.
- Bakker, J., 2018. *Methods*. [Online] Available at: <https://doi.org/10.1002/9781405165518.wbeosm087.pub2> [Accessed 6 12 2018].
- Ball, R., Robin, A. & Shuang, W. J., 2003. Incentives versus standards: properties of accounting income in four East Asian countries. *Journal of Accounting and Economics*, 36(1-3), pp. 235-270.
- Barlev, B. & Haddad, J. R., 2003. Fair value accounting and the management of the firm. *Critical Perspectives on Accounting*, 14(4), pp. 383-415.
- Barth, M. E., Landsman, W. R. & Wahlen, J. M., 1995. Fair value accounting: Effects on banks' earnings volatility, regulatory capital, and value of contractual cash flows. *Journal of Banking & Finance*, 19(3-4), pp. 577-605.
- Barth, M., Konchitchki, Y. & Landsman, W., 2013. Cost of capital and earnings transparency. *Journal of Accounting and Economics*, 55(2-3), pp. 206-224.
- Barth, M. & Landsman, W., 2003. *Cost of capital and the quality of financial statement information*, Chapel Hill: Stanford university and the university of north Carolina.
- Barth, M., 2008. Financial reporting transparency. *Journal of Accounting, Auditing and Finance*, 23(2), pp. 173-189.

References

- Basu, A. K., Rajiv Lal, V. S. & Staekin, R., 1985. Salesforce Compensation Plans: An Agency Theoretic Perspective. *Marketing Science*, 4(4), pp. 267-291.
- Baxter, R., Hoitash, R., Bedard, J. C. & Yezegel, A., 2013. Enterprise Risk Management Program Quality: Determinants, Value Relevance, and the Financial Crisis. *Contemporary Accounting Research*, 30(4), pp. 1264-1295.
- Beasley, M., Branson, B. & Hancock, B., 2009. *Report on the Current State of Enterprise Risk Oversight*, s.l.: AICPA and ERM Institution.
- Beasley, M., Clune, R. & Hermanson, D., 2005. Enterprise Risk management: An empirical analysis of factors associated with the extent of implementation. *Journal of Accounting and Public Policy*, 24(6), pp. 521-531.
- Beisland, L. & Knivsfla, K., 2015. Have IFRS changed how stock prices are associated with earnings and book values?: Evidence from Norway. *Review of Accounting and Finance*, 14(1), pp. 41-63.
- Bergh, D., Connelly, B. & Ketchen, D. S. L., 2014. Signalling Theory and Equilibrium in Strategic Management Research: An Assessment and a Research Agenda. *Journal of Management Studies*, 51(8), pp. 1334-1360.
- Berle, A. & Means, G., 1932. *The Modern Corporation and Private Property*. New York: s.n.
- Bhattacharya, S., 1979. Imperfect Information, Dividend Policy, and "The Bird in the Hand" Fallacy. *Bell Journal of Economics*, 10(1), pp. 259-270.
- Bolton, M., 1993. Organizational Innovation and Substandard Performance: When is Necessity the Mother of Innovation?. *Organization Science*, 4(1), pp. 1-9.
- Bova, F., & Pereira, R., 2012. The Determinants and Consequences of Heterogeneous IFRS Compliance Levels Following Mandatory IFRS Adoption: Evidence from a Developing Country. *Journal of International Accounting Research*. 11(1). Pp. 83-111.
- Bratton, W. W. & Cunningham, L. A., 2009. Treatment Differences and Political Realities in the GAAP-IFRS Debate. *Virginia Law Review*, 95(4), pp. 989-1003.
- Brennan, N., 2006. *Customizing Enterprise Risk Management*, s.l.: Business Finance .
- Bromiley, P., McShane, M., Nair, A. & Rustambekov, E., 2015. Enterprise Risk Management: Review, Critique, and Research Directions. *Long Range Planning*, 48(4), pp. 265-276.

References

- Brown, I., Steen, A. & Foreman, J., 2009. Risk Management in Corporate Governance: A Review and Proposal. *Corporate Governance: An International Review*, 17(5), pp. 546-558.
- Burrell, G., & Morgan, G., 1979. *Sociological Paradigms and Organizational Analysis*. Aldershot, UK: Ashgate.
- Bushman, R. M. & Smith, A. J., 2003. Transparency, Financial Accounting Information, and Corporate Governance. *Economic Policy Review*, 9(1), pp. 65-87.
- Cadez, S., & Guilding, C., 2008. An Explanatory Investigation of an Integrated Contingency Model of Strategic Management Accounting. *Accounting Organizations and Society*.33(7-8), pp. 836-863.
- Cairns, D., Massoudi, D., Taplin, R. & Tarca, A. b., 2011. IFRS fair value measurement and accounting policy choice in the United Kingdom and Australia. *The British Accounting Review*, 43(1), pp. 1-21.
- Callao, S., Jarne, J. I. & Laínez, J. A., 2007. Adoption of IFRS in Spain: Effect on the comparability and relevance of financial reporting. *Journal of International Accounting, Auditing and Taxation*, 16(2), pp. 148-178.
- Certo, S. T., 2003. Influencing initial public offering investors with prestige: Signaling with Board Structures. *Academy of Management Review*, 28(3), pp. 432-446.
- Chalmers, K., Clinch, G. & Godfrey, J. M., 2011. Changes in Value Relevance of Financial Information Upon IFRS Adoption: Evidence from Australia. *Australian Journal of Management*, 36(2), pp. 151-173.
- Chen, J., 2015. Developing and Validating a measure of Stakeholder Culture for the Not-for-profit Sector. *International Journal of Voluntary and Nonprofit Organizations*.26, pp. 1189-1218.
- Chenhall, R. & Morris, D., 1986. The Impact of Structure, Environment and Interdependencies on the Perceived Usefulness of Management Accounting Systems. *Accounting Review*, 61(1), pp. 16-35.
- Christensen, H., Lee, E. & Walker, M., 2009. Do IFRS reconciliation convey information? the effect of debt contracting. *Journal of Accounting Research*, 47(5), pp. 1167-1199.
- Christensen, H., Lee, E. & Walker, M., 2015. Incentives or standards: What determines accounting quality changes around IFRS adoption?. *European Accounting Review*, 24(1), pp. 31-61.

References

- Chua, W. F. & Taylor, S. L., 2008. The rise and rise of IFRS: An examination of IFRS diffusion. *J. Account. Public Policy*, 27(6), pp. 462-473.
- Chua, Y., Cheong, C. & Gould, G., 2012. The Impact of Mandatory IFRS Adoption on Accounting Quality: Evidence from Australia. *Journal of International Accounting Research*, 11(1), pp. 119-146.
- Clarke, C. & Varma, S., 1999. Strategic Risk Management: the New Competitive Edge. *Long Range Planning*, 32(4), pp. 414-424.
- Clarkson, P., Hanna, J., Richardson, G. D. & Thompson, R., 2011. The impact of IFRS adoption on the value relevance of book value and earnings. *Journal of Contemporary Accounting & Economics*, 7(1), pp. 1-17.
- Cohen, J., Krishnamoorthy, G. & Wright, A., 2017. Enterprise risk management and the financial reporting process: The experiences of audit committee members, CFOs and external auditors. *Contemporary Accounting Research*, 34(2), pp. 1178-1209.
- Cohen, J., Krishnamoorthy, G., Peytcheva, M & Wright, A, 2013. How Does the Strength of the Financial Regulatory Regime Influence Auditors' Judgments to Constrain Aggressive Reporting in a Principles-Based Versus Rules-Based Accounting Environment. *Accounting Horizons*, 27(3), pp. 579-601.
- Coles, J., Daniel, V. & Naveen, L., 2006. Managerial incentives and risk-taking. *Journal of Financial Economics*, 79(2), pp. 431-468.
- Colliers International, 2016. *Australian Capital Markets Paper*. [Online] Available at: https://www.colliers.com.au/find_research/speciality_reports_and_white_papers/australian_capital_markets_report_-_q1_2016/[Accessed 20 1 2018].
- Conlon, E. & Parks, J., 1990. Effects of Monitoring and Tradition on Compensation Arrangements: An Experiment with Principal-Agent Dyads. *Academy of Management Journal*, 33(3), pp. 603-622.
- Connelly, B., Certo, S., Ireland, R. & Reutzel, C., 2011. Signalling Theory: A Review and Assessment. *Journal of Management*, 37(1), pp. 39-67.
- COSO, 2004. *Enterprise Risk Management- Integrated Framework*, s.l.: Committee of Sponsoring Organizations.
- COSO, 2018. Enterprise Risk Management, Applying Enterprise Risk Management to Environmental, Social and Governance Related Risk. [Online] Available at:

References

- <https://www.coso.org/Documents/COSO-WBCSD-ESGERM-Guidance-Full.pdf>.
- Culpan, R. & Trussel, J., 2005. Applying the agency and stakeholder theories to the Enron debacle: An ethical perspective. *Business and Society Review*, 110(1), pp. 59-76.
- Cumming, C. M. & Hirtle, B., 2001. The challenges of risk management in diversified financial companies. *Economic Policy Review*, 7(1), pp. 1-17.
- Daske, H. & Gebhardt, G., 2006. International Financial Reporting Standards and Experts' Perceptions of Disclosure Quality. *ABACUS*, 42(3/4), pp. 461-498.
- Daske, H., Hail, L., Leuz, C. & Verdi, R., 2013. Adopting a Label: Heterogeneity in the Economic Consequences Around IAS/IFRS Adoptions. *Journal of Accounting Research*, 51(3), pp. 495-547.
- Daske, H., Hail, L., Leuz, C. & Verdi, R. S., 2008. Mandatory IFRS Reporting Around the World: Early Evidence on the Economic Consequences. *Journal of Accounting Research*, 46(5), pp. 1085-1142.
- Davis, K. & Lewis, K., 1981. *Australian Monetary Economics*. first edition ed. Melbourne: Longman Cheshire.
- Deboskey, D. & Mogharebi, N., 2013. A Study on Effect of Information Assymetry on Earning Management: Evidence from Tehran Stock Exchange. *Management Letter Science*, 3(2), pp. 2161-2166.
- Dolemeyer, B., 2010. Legal Families. European History Online. Available at: <http://ieg-ego.eu/en/threads/crossroads/legal-families>. [Accessed 16 09 2018].
- Dechow, P. & Skinner, D., 2000. Earnings management: Reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons*, 14(2), pp. 235-250.
- Deegan, C. & Unerman, J., 2011. *Financial Accounting Theory*. European Edition ed. Maidenhead: McGraw-Hill Education.
- Demidenko, E. & McNutt, P., 2010. The Ethics of Enterprise Risk Management as a Key Component of Corporate Governance. *International Journal of Social Economics*, 37(10), pp. 802-815.
- Demski, J. S. & Feltham, G. A., 1978. Economic Incentives in Budgetary Control Systems. *The Accounting Review*, 53(2), pp. 336-359.
- Department of Foreign Affairs and Trade, 2010. *Australian Government*. [Online] Available at: <https://dfat.gov.au/pages/default.aspx>[Accessed 20 8 2017].

References

- Department of Foreign Affairs and Trade, 2012. *TRADE AT A GLANCE 2012*, Australia: Department of Foreign Affairs and Trade.
- Dionne, G. & Ouederni, K., 2011. Corporate Risk Management and Dividend Signaling Theory. *Finance Research Letters*, 8(4), pp. 188-195.
- Donaldson, L. & Davis, J., 1991. Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns. *Australian Journal of Management*, 16(1), pp. 49-64.
- Eisenhardt, K. M., 1989. Agency Theory: An Assessment and Review. *The Academy of Management Review*, 14(1), pp. 57-74.
- Eisenhardt, M., 1985. Control: Organizational and Economic Approaches. *Management Science*, 31(2), pp. 134-149.
- European Central Bank, 2000. *The globalisation of financial markets*. [Online] Available at: https://www.ecb.europa.eu/press/key/date/2000/html/sp000912_2.en.html [Accessed 13 2 2018].
- Fama, E. F., 1980. Agency Problems and the Theory of the Firm. *Journal of Political Economy*, 88(2), pp. 288-307.
- Fama, E. & French, K., 1993. Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics*, 33(1), pp. 3-56.
- Fama, E. & Jensen, M., 1983. Separation of Ownership and Control. *Journal of Law and Economics*, 26(2), pp. 301-325.
- FASB, 2018. *Conceptual Framework for Financial Reporting*. [Online] Available at: <https://www.ifs.org/-/media/project/conceptual-framework/fact-sheet-project-summary-and-feedback-statement/conceptual-framework-project-summary.pdf>[Accessed 18 12 2018].
- Field, A., 2009. *Discovering statistics using SPSS*. Third Edition ed. London: Sage publications.
- Field, A., 2013. *Discovering statistics using IBM SPSS statistics*. Fourth Edition ed. London: Sage publications.
- Florini, A., 2007. *The Right to Know: Transparency for an Open World*. s.l.:Columbia University Press.
- Fombrun, C. & Shanley, M., 1990. What's in a Name? Reputation Building and Corporate Strategy. *The Academy of Management Journal*, 33(2), pp. 233-258.

References

- Francis, J., Olsson, R. & Katherine, S., 2004. Costs of equity and earnings attributes. *The Accounting Review*, 79(4), pp. 967-1010.
- Francis, J. & Schipper, K., 1999. Have Financial Statements Lost Their Relevance?. *Journal of Accounting Research*, 37(2), pp. 319-352.
- Fraser, J. & Simkins, B., 2010. *Enterprise risk management*. USA: John Wiley & Sons.
- FXCM, 2016. *Market insights: Australian Securities Exchange*, Australia: FXCM.
- Gaffikin, M., 2006. The Critique of Accounting Theory. *University of Wollongong, working paper*.
- Gassen, J., & Sellhorn, T., 2006. Applying IFRS in Germany: Determinants and Consequences. Available at SSRN https://papers.ssrn.com/sol3/papers.cfm?abstract_id=906802.
- Gatzert, N. & Martin, M., 2015. Determinants and value of enterprise risk management: Empirical evidence from the literature. *Risk Management and Insurance Review*, 18(1), pp. 29-53.
- Ghoul, S., Guedhami, O., Kwok, C. & Mishra, D., 2011. Does corporate social responsibility affect the cost of capital. *Journal of Banking and Finance*, 35(9), pp. 2388-2406.
- Gioia, D., & Pitre, E., 1990. Multiparadigm Perspectives on Theory Building. *Academy of Management Review*, 15(4), pp. 584-602.
- Gilder, F., Taylor, J., Walpole, M. & Ciro, T., 2016. *Understanding Taxation LAW*. Eighth Edition ed. NSW: LexisNexis Butterworths.
- Glosten, L. & Milgrom, P., 1985. Bid , ask and transaction prices in a specialist market with heterogeneously informed traders. *Journal of Financial Economics*, 4(1), pp. 71-100.
- Goodwin, J., Ahmed, K. & Heaney, R., 2008. The effects of international financial reporting standards on the accounts and accounting quality of Australian firms: A retrospective study. *Journal of Contemporary Accounting and Economics*, 4(2), pp. 89-119.
- Gordon, L. A., Loeb, M. P. & Tseng, C.-Y., 2009. Enterprise risk management and firm performance: A contingency perspective. *J. Account. Public Policy*, 28(4), pp. 301-327.
- Graff, M., 2008. Law and Finance: Common Law and Civil Law Countries Compared: An Empirical Critique. *Economica*, 75(297), pp. 60-83.

References

- Gregory, C., Meade, A. & Thompson, L., 2013. Understanding Internet Recruitment via Signalling Theory and the Elaboration Likelihood Model. *Computers in Human Behavior*, 29(5), pp. 1949-1959.
- Groenewegen, P., 1980. *Australian Taxation Policy*. first edition ed. Melbourne: Longman Cheshire.
- Hail, L. & Leuz, C., 2007. *Capital market effects on mandatory IFRS reporting in the EU: Empirical evidence*, s.l.: AFM.
- Hanson, M., 2003. The Global Promotion of Transparency in Emerging Markets. *Law Journal Library*, 9(1), pp. 63-80.
- Harris, J., Johnson, S. & Souder, D., 2013. Model-theoretic knowledge accumulation: The case of agency theory and incentive alignment. *Academy of Management Review*, 39(3), pp. 424-454.
- Hassan, G., 2012. *Multiculturalism and Australia's great divide, Axis of logic*. [Online] Available at: http://axisoflogic.com/artman/published/article_64365.shtml [Accessed 15 10 2016].
- Hersey, F., Vroom, B. & yETTON, 2019. *Summary of Contingency Theory*. [Online] Available at: https://www.valuebasedmanagement.net/methods_contingency_theory.html [Accessed 18 5 2019].
- He, W. P., Lepone, A. & Leung, H., 2013. Information asymmetry and the cost of equity capital. *International Review of Economics & Finance*, Volume 27, pp. 611-620.
- He, Z., Xu, X. & Deng, S., 2003. Discovering cluster-based local outliers. *Pattern Recognition Letters*, 24(9), pp. 1641-1650.
- Hicks, J. R. & Wheller, D., 1990. *Money and Capital Markets in Australia*. first edition ed. N.S.W: Harcourt Brace Jovanovich.
- Hill, C. & Jones, T., 1992. Stockholder-agency theory. *Journal of Management Studies*, 29(2), pp. 131-154.
- Holthausen, R. W., 2003. *Testing the Relative Power of Accounting Standards Versus Incentives and Other Institutional Features to Influence the Outcome of Financial Reporting in an International Setting*. Boston, JAE Boston Conference.
- Holzinger, D. & Parker, C., 2018. *How formal ERM implementation can help federal agencies*. [Online]

References

- Available at: <https://www.journalofaccountancy.com/issues/2018/jun/formal-erm-implementation-federal-government.html>[Accessed 22 2 2019].
- Horton, J., Serafeim, G. & Serafeim, I., 2013. Does Mandatory IFRS Adoption Improve the Information Environment?. *Contemporary Accounting Research*, 30(1), pp. 388-423.
- Houqe, M., Monem, R. & Zijl, T., 2016. The economic consequences of IFRS adoption: evidence from New Zealand. *Journal of International Accounting, Auditing and Taxation*, 27(5), pp. 40-48.
- Hoyt, R. & Liebenberg, A., 2011. The value of enterprise risk management. *Journal of Risk and Insurance*, 78(4), pp. 795-822.
- Hoyt, R., Moore, D. & Liebenberg, A., 2008. The Value of Enterprise Risk Management: Evidence from the U.S. Insurance Industry.
- Hughes, J. S., Liu, J. & Liu, J., 2007. Information Asymmetry, Diversification, and Cost of Capital. *The Accounting Review*, 82(3), pp. 705-729.
- IASB, 2016. *IFRS*. [Online] Available at: <https://www.ifrs.org/> [Accessed 2 8 2017].
- IASB, 2017. *IFRS Foundation*. [Online] Available at: <https://www.ifrs.org/> [Accessed 28 7 2017].
- IASB, 2019. *IFRS*. [Online] Available at: <https://www.ifrs.org/projects/2017/uncertainty-over-income-tax-treatment/#about> [Accessed 22 1 2019].
- IASC, 1998. *IASC*. [Online] Available at: <https://www.iasplus.com/en/resources/ifrsf/history/resource25>[Accessed 25 1 2018].
- IRM, 2019. Risk Appetite and Tolerance, Guidance Paper. https://www.theirm.org/media/7239/64355_riskapp_a4_web.pdf.
- Jeanjean, T. & Stolowy, H., 2008. Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption. *Journal of Accounting and Public Policy*, 27(6), pp. 480-494.
- Jensen, M., 1983. Organization Theory and Methodology. *Accounting Review*, 56(2), pp. 319-338.
- Jensen, M. C. & Meckling, W. H., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), pp. 305-360.

References

- Jensen, M. & Meckling, 1979. Rights and Production Functions: An Application to Labour Managed Firms. *Journal of Business*, 52(4), pp. 469-506.
- ji, X. & Lu, W., 2014. The value relevance and reliability of intangible assets : Evidence from Australia before and after adopting IFRS. *Asian Review of Accounting*, 22(3), pp. 182-216.
- Jones, C. & Luther, R., 2008. Anticipating the impact of IFRS on the management of German manufacturing companies: some observations from a British perspective. *Accounting in Europe*, 2(1), pp. 165-193.
- Jones, J. J., 1991. Earnings Management During Import Relief Investigations. *Journal of Accounting Research*, 29(2), pp. 193-228.
- Joos, P. & Leung, E., 2013. Investor Perceptions of Potential IFRS Adoption in the United States. *Accounting Review*, 88(2), pp. 577-609.
- Kang, H., Cheng, M. & Gray, S., 2007. Corporate Governance and Board Composition: Diversity and Independence of Australian Boards. *Corporate Governance: An International Review*, 15(2), pp. 194-207.
- Kargin, S., 2013. The Impact of IFRS on the Value Relevance of Accounting Information: Evidence from Turkish Firms. *International Journal of Economics and Finance*. 5(4), pp. 71-80.
- Khan, M., Hussain, S. & Mehmood, W., 2016. Why do firms adopt enterprise risk management (ERM)? Empirical evidence from France. *Management Decision*, 54(8), pp. 1887-1907.
- Kim, Y., Li, H. & Li, S., 2012. Does eliminating the Form 20-F reconciliation from IFRS to U.S. GAAP have capital market consequences?. *Journal of Accounting and Economics*, 53(1-2), pp. 249-270.
- Kirmani, A. & Rao, A., 2000. No Pain, No Gain: A Critical Review of the Literature on Signaling Unobservable Product Quality. *Journal of Marketing*, 64(2), pp. 66-79.
- Kirubasuthan, A. & Niranjana, R., 2018. *The Effects of International Marketing Environment on Domestic*, s.l.: s.n.
- Kivisto, J., 2008. An Assessment of Agency Theory as a Framework for the Government University Relationship. *Journal of Higher Education Policy and Management*, 30(4), pp. 339-350.
- Kivisto, J. A., 2007. *Agency Theory as a Framework for the Government-University Relationship*. s.l., Tampere University Press.

References

- Kleffner, A. & Jaworski, B., 1990. Market Orientation: The Construct , Research Propositions and Managerial Implications. *Journal of Marketing*, 54(2), pp. 1-18.
- Kleffner, A., Lee, R. & McGannon, B., 2003. The effect of corporate governance on the use of enterprise risk management evidence from Canada. *Risk Management and Insurance Review*, 45(2), pp. 53-73.
- Klinsukhon, S., 2016. Accounting information transparency and decision making effectiveness: evidence from financial businesses in Thailand. *The Business and Management Review*, 7(5), pp. 112-120.
- Kohli, A. K. & Jaworski, B. J., 1990. Market Orientation: The Construct, Research Propositions, and Managerial Implications. *Journal of Marketing*, 54(2), pp. 1-18.
- Koh, P., 2003. On the association between institutional ownership and aggressive corporate earnings management in Australia. *The British Accounting Review*, 35(2), pp. 105-128.
- Kothari, S. P., Leone, A. & Wasley, C. E., 2005. Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39(1), pp. 163-197.
- Krist, W., 2007. Trade Agreements and Economic Theory. In: s.l.:Wilson Center Home.
- La Porta, R., Lopez-De-Silanes, F., Shleifer, A. & Vishny, R., 1996. *Law and Finance*, Cambridge: NBER.
- La Porta, R., Lopez-De-Silanes, Shleifer, A. & Vishny, R., 1998. Law and Finance. *Journal of Political Economy*, 106(6).
- Lambert, R. A., Leuz, C. & Verrecchia, R. E., 2007. Accounting Information, Disclosure, and the Cost of Capital. *Journal of Accounting Research*, 45(2), pp. 385-420.
- Lambert, S., 2017. *Current Trends in Australian Capital Market*. Melbourne, Monash University.
- Leuz, C., Nanda, D. & Wysocki, P., 2003. Earnings management and investor protection: An international comparison. *Journal of Financial Economics*, 69(3), pp. 505-527.
- Leuz, C. & Verrecchia, R. E., 2000. The Economic Consequences of Increased Disclosure. *Journal of Accounting Research*, 38(1), pp. 91-124.

References

- Liebenberg, A. & Hoyt, R., 2003. The determinants of enterprise risk management evidence from the appointment of chief risk officers. *Risk Management and Insurance Review*, 6(1), pp. 37-52.
- Li, J., Mangena, M. & Pike, R., 2012. The effect of audit committee characteristics on intellectual capital disclosure. *The British Accounting Review*, 44(2), pp. 98-110.
- Lindenberg, E. & Ross, S., 1981. Tobin's q Ratio and Industrial Organization. *The Journal of Business*, 54(1), pp. 1-32.
- Lin, S., Riccardi, W. & Wang, C., 2012. Does accounting quality change following a switch from U.S.GAAP to IFRS? Evidence from Germany. *Journal of Accounting Public Policy*, 31(6), pp. 641-657.
- Li, S., 2010. Does mandatory adoption of international financial reporting standards in the european union reduce the cost of equity capital?. *The Accounting Review*, 85(2), pp. 607-636.
- Luft, J. & Shields, M., 2003. Mapping Management Accounting: Graphics and Guidelines for Theory-Consistent Empirical Research. *Accounting Organizations and Society*, 28(2-3), pp. 169-249.
- Lukka, K., 2010. The Roles and Effects of Paradigms in Accounting Research. *Management Accounting Research*, 21(2), pp. 110-115.
- Lundqvist, S., 2014. An Exploratory Study of Enterprise Risk Management: Pillars of ERM. *Journal of Accounting, Auditing and Finance*, 29(3), pp. 393-429.
- Madura, J., 2010. *Financial institutions and markets*. ninth edition ed. USA: Cengage Learning.
- Maiga, A., Nilsson, A. & Jacobs, F., 2014. Assessing the interaction effect of cost control systems and information technology integration on manufacturing plant financial performance. *The British Accounting Review*, 46(1), pp. 77-90.
- Malmi, T., 2010. Reflections on Paradigms in Action in Accounting Research. *Management Accounting Research*, 21(2), pp. 121-123.
- Mavlanova, T., Fich, R. & Koufaris, M., 2012. Signaling Theory and Information Asymmetry in Online Commerce. *Information and Management*, 49(5), pp. 240-247.
- Mavlanova, T., Fich, R. & Lang, G., 2016. The Role of External and Internal Signals in E-commerce. *Decision Support Systems*, 87, pp. 59-68.

References

- McAdam, R., Miller, K., & McSorley, C., 2019. Towards a Contingency Theory Perspective of Quality Management in Enabling Strategic Alignment. *INT. J. Production Economics*. 207, pp. 195-209.
- McShane, M., Nair, A. & Rustambekov, E., 2011. Does enterprise risk management increase firm value?. *Journal of Accounting, Auditing and Finance*, 26(4), pp. 641-658.
- Merchant, K., 2010. Paradigms in Accounting Research: A View from North America. *Management Accounting Research*, 21(2), pp. 116-120.
- Merton, C., 1987. A Simple Model of Capital Market Equilibrium with Incomplete Information. *The Journal of Finance*, 42(3), pp. 483-510.
- Miccolis, J. & Shah, S., 2000. *Enterprise Risk Management: An Analytic Approach*. Parsippany: Tillinghast-Towers Perrin.
- Mikes, A., 2009. Risk management and calculative cultures. *Management Accounting Research*, 20(1), pp. 18-40.
- Mikes, A. & Kaplan, R., 2013. *Managing Risks: Towards a Contingency Theory of Enterprise Risk Management*. Boston, Harvard Business School.
- Miller, M. & Rock, K., 1985. Dividend Policy under Asymmetric Information. *The Journal of Finance*, 40(4), pp. 1031-1051.
- Miller, T. & Triana, M., 2009. Demographic Diversity in the Boardroom: Mediators of the Board Diversity Firm Performance Relationship. *Journal of Management Studies*, 46(5), pp. 755-786.
- Moeller, R. R., 2007. *COSO Enterprise Risk Management: Understanding the New Integrated ERM Framework*. Hoboken: NJ Wiley.
- Montes-Rojas, G. & Sosa-Escudero, W., 2011. Robust tests for heteroskedasticity in the one-way error components model. *Journal of Econometrics*, 160(2), pp. 300-310.
- Murthy & Jack, 2014. *Safari*. [Online] Available at: <https://www.oreilly.com/library/view/warranty-fraud-management/9781119223887/b02.xhtml>[Accessed 12 3 2019].
- Myers, S. & Majluf, N., 1984. Corporate Financing and Investment Decisions when Firms have Information that Investors do not have. *Journal of Financial Economics*, 13(2), pp. 187-221.

References

- Nedael, B. Rasid, S. Sofian, S. Basiruddin, R. & Kalkhonran, A 2015. *A Contingency-Based Framework for Managing Enterprise Risk*, s.l.: Global Business and Organizational Excellence.
- Nocco, B. & Stulz, R., 2006. Enterprise Risk Management: Theory and Practice. *Journal of Applied Corporate Finance*, 18(4), pp. 8-20.
- Olson, D. & Wu, D., 2010. *Enterprise Risk Management Models*. 2 ed. Germany: Springer-Verlag Berlin Heidelberg.
- Orange City Council, 2019. *Enterprise Risk Management*, NSW: Orange City Council.
- Otley, D., 1980. The Contingency Theory of Management Accounting: Achievement and Prognosis. *Accounting, Organizations and Society*, 5(4), pp. 413-428.
- Otley, D., 2016. The Contingency Theory of Management Accounting and Control: 1980-2014. *Management Accounting Research*, Volume 31, pp. 45-62.
- Paananen, M. & Lin, H., 2009. The Development of Accounting Quality of IAS and IFRS over time: the Case of Germany. *Journal of International Accounting Research*, 8(1), pp. 31-55.
- Paape, L. & Spekle, R., 2012. The Adoption and Design of Enterprise Risk Management Practices: An Empirical Study. *European Accounting Review*, 21(3), pp. 533-564.
- Pagach, D. & Warr, R., 2010. *The effects of enterprise risk management on firm performance*. North Carolina, North Carolina State University.
- Pellegrinelli, S. & Murray-Webster, R., 2011. Multi-Paradigmatic Perspectives on a Business Transformation Program. *Project Management Journal*, 42(6), pp. 4-19.
- Pope, J., 2005. Reform of the Personal Income Tax System in Australia. *The Economic Society of Australia*, 24(4), pp. 316-331.
- PPPLRC, 2016. *World Bank Group*. [Online] Available at: <https://ppp.worldbank.org/public-private-partnership/legislation-regulation/framework-assessment/legal-systems/common-vs-civil-law> [Accessed 15 4 2019].
- Prasad, A., Green, P. & Heales, J., 2009. *Profit and Organisational Legitimacy in an Emerging Market*. Australia and New Zealand, AFAANZ.
- Protiviti, 2019. *A risk-informed approach to enterprise risk management*. [Online] Available at: <https://www.protiviti.com/US-en/insights/bulletin-vol6-issue10>[Accessed 12 2 2019].

References

- Psaros, J; Trotman, K, 2004. The Impact of the Types of Accounting Standards on Preparers' Judgments. *ABACUS*, 40(1), PP. 76-92.
- Quon, T. K., Zeghal, D. & Maingot, M., 2012. Enterprise Risk Management and Firm Performance. *Procedia - Social and Behavioral Sciences*, 62(24), pp. 263-267.
- Ramanna, K. & Sletten, E., 2009. *Why do countries adopt international financial reporting standards?*, USA: Harvard Business School.
- Rashid, A., 2013. CEO duality and agence cost: Evidence from Bangladesh. *Journal of Management and Governance*, 17(4), pp. 989-1008.
- Rashid, A., 2014. Revisiting agency theory:Evidence of board independence and agency cost from Bangladesh. *Journal of Business Ethics*, 130(1), pp. 181-198.
- Razak, A., Rowling, M., White, G. & Mason-Jones, R., 2016. Public Sector Supply Chain Management: A Triple Helix Approach to Aligning Innovative Environment Initiatives. *Foresight and STI Governance*, 10(1), pp. 43-52.
- Reilly, F. & Brown, K., 2012. *Investment analysis and portfolio management*. Tenth Edition ed. Mason: South-Western Cengage Learning.
- Reserve Bank of Australia, 2018. What is Monetary policy?. <https://www.rba.gov.au/education/resources/explainers/pdf/what-is-monetary-policy.pdf>.
- Robson, k., & Cooper, J., 1989. Power and Management Control. *Critical Perspectives in Management Control*. Palgrave Macmillan, London. pp 79-114. DOI: https://doi.org/10.1007/978-1-349-07658-1_6.
- Rogoff, K., 2003. Disinflation: An Unsung Benefits of Globalization?. *Finance and Development* <http://scholar.harvard.edu/files/rogoff/files/disinflation.pdf>.
- Shad, M. & Lai, F., 2015. A conceptual framework for enterprise risk management performance measure through economic value added. *Global Business and Management Research: An International Journal*, 7(2), pp. 1-11.
- Shapiro, P., 2005. Agency theory. *Annual Reviews*, Volume 31, pp. 263-284.
- Shieh, S., 1993. Incentives for Cost-Reducing Investment in a Signalling Model of Product Quality. *The RAND Journal of Economics*, 24(3), pp. 466-477.
- Soderstrom, N. & Sun, K., 2007. IFRS Adoption and Accounting Quality: A Review. *European Accounting Review*, 16(4), pp. 675-702.
- Spasovejic, J. & Nicholas, M., 2013. Fiscal Equalisation in Australia. *Australian Journal of Public Administration*, 72(3), pp. 316-329.

References

- Spence, A., 1974. *Market Signalling, Information Transfer in Hiring and Related Processes*. Cambridge, Harvard University Press.
- Spence, A. & Zeckhauser, R., 1971. Insurance, Information, and Individual Action. *American Economic Review*, 61(2), pp. 380-387.
- Spence, M., 1973. Job Market Signaling. *Quarterly Journal of Economics*, 87(3), pp. 355-374.
- Spence, M., 2002. Signalling in Retrospect and the Informational Structure of Markets. *American Economic Review*, 92(3), pp. 434-459.
- Stock, J. & Watson, M., 2008. Heteroskedasticity-Robust Standard Errors for Fixed Effects Panel Data Regression. *Econometrica Journal of the Econometric Society*, 76(1), pp. 155-174.
- Subramaniam, N., McManus, L. & Zhang, J., 2009. Corporate Governance, Firm Characteristics and Risk Management Committee Formation in Australian Companies. *Management Auditing Journal*, 24(4), pp. 3016-339.
- Subramaniam, N. Wahyuni, D. Cooper, B. Leung, P. & Wines, G 2015. Integration of Carbon Risks and Opportunities in Enterprise Risk Management Systems: Evidence from Australian Firms. *Journal of Cleaner Production*, Volume 96, pp. 407-417.
- Sun, L. & Farooque, O., 2018. An exploratory analysis of earnings management practices in Australia and New Zealand. *International Journal of Accounting and Information Management*, 26(1), pp. 81-114.
- Tahir, I. & Razali, A., 2011. The Relationship between Enterprise Risk Management and Firm Value: Evidence from Malaysian Public Listed Companies. *International Journal of Economics and Management Sciences*, 1(2), pp. 32-41.
- Tendeloo, B. v. & Vanstraelen, A., 2005. Earnings management under German GAAP versus IFRS. *European Accounting Review*, 14(1), pp. 155-180.
- Thrnnton, G., 2018. Optimizing the Financial Close: Account Reconciliation Automation. <https://www.granthornton.com/-/media/content-page-files/advisory/pdfs/archived-webcasts/2018/05-08-account-reconciliation-automation.ashx>.
- United States Trade Representative, 2013. *2013 National Trade Estimate Report on Foreign Trade Barriers*, USA: United States Trade Representative.

References

- Vandenbulcke, G. et al., 2011. Cycle commuting in Belgium: Spatial determinants and 're-cycling' strategies. *Transportation Research Part A: Policy and Practice*, 45(2), pp. 118-137.
- Verrecchia, R. E., 2001. Essays on disclosure. *Journal of Accounting and Economics*, 32(1-3), pp. 97-180.
- Viscelli, T., Beasley, M. & Hermanson, D., 2016. Research Insights about Risk Governance: Implications from a Review of ERM Research. *SAGA Open*, pp. 1-17.
- Watts, R., & Zimmerman, J., 1986. *Positive Accounting Theory*. Prentice-Hall, INC. NJ.
- Watson, A., Shrivs, P. & Marston, C., 2002. Voluntary disclosure of accounting ratios in the UK. *The British Accounting Review*, 34(4), pp. 289-313.
- Weick, K. E., 1989. Theory Construction as Disciplined Imagination. *Academy of Management Review*, 14(4), pp. 516-531.
- White, K. G., 1985. Direct remembering, mediated remembering, and atypical forgetting functions. *Journal of the Experimental Analysis of Behavior*, 109(1), pp. 70-86.
- Whittington, G., 2008. Harmonization or Discord? the Critical Role of the IASB Conceptual Framework Review. *Journal of Accounting and Public Policy*, 27(6), pp. 495-502.
- Whyntie, P., 2012. Strategic Risk Management- The Neglected Element of ERM?. *Keeping Good Companies*, 1 10, 64(9), pp. 527-530.
- Williams, R., 1999. Cultural safety--what does it mean for our work practice?. *Aust N Z J Public Health*, 23(2), pp. 213-224.
- Woellner, R. Stephen, B. Shirley, M. Chris, E & Dale, P 2016. *Australian Taxation Law*. 26th Edition ed. Melbourne: Oxford University Press.
- Wright, B., Kroll, M., Krug, J. & Pettus, M., 2007. Influences of top management team incentives on firm risk taking. *Strategic Management Journal*, 28(1), pp. 81-89.
- Zeghal, D., Chtourou, S. & Sellami, Y., 2011. An analysis of the effect of mandatory adoption of IAS/IFRS on earnings management. *Journal of Accounting , Auditing and Taxation*, 20(2), pp. 61-72.
- Zeff, S., 1978. The Rise of Economic Consequences. *The Journal of Accountancy*, <https://www.scribd.com/document/147526005/Zeff-1978>.

References

- Zhang, Y. & Wiersema, M., 2009. Stock Market Reaction to CEO Certification: The Signaling Role of CEO Background. *Strategic Management Journal*, 30(7), pp. 693-710.
- Zou, P., Chen, Y. & Chan, T., 2010. Understanding and Improving your Risk Management Capability: Assessment Model for Construction Organizations. *Journal of Construction Engineering and Management*, pp. 854-863.
- Zwaan, L., Stewart, J. & Subramaniam, N., 2011. Internal Audit Involvement in Enterprise Risk Management. *Managerial Auditing Journal*, 26(7), pp. 586-604.

APPENDICES

Appendix 1: Australian listed firms included in the study sample

Table 17: Australian Listed Firms Included in the Study Sample.

Company Name	ASX Code	Company Industry
ABUNDANT PRODUCE LIMITED	ABT	Food, Beverage & Tobacco
ACACIA COAL LIMITED	AJC	Energy
ACADEMIES AUSTRALASIA GROUP LIMITED	AKG	Consumer Services
ADACEL TECHNOLOGIES LIMITED	ADA	Software & Services
ADAVALE RESOURCES LIMITED	ADD	Energy
ADCORP AUSTRALIA LIMITED	AAU	Media & Entertainment
ADMIRALTY RESOURCES NL.	ADY	Materials
ADSLTD LTD	ADJ	Software & Services
ADX ENERGY LTD	ADX	Energy
AFT CORPORATION LIMITED	AFT	Technology Hardware & Equipment
AHALIFE HOLDINGS LIMITED	AHL	Retailing
AIR NEW ZEALAND LIMITED	AIZ	Transportation
AJ LUCAS GROUP LIMITED	AJL	Capital Goods
ALEXIUM INTERNATIONAL GROUP LIMITED	AJX	Materials
ALKANE RESOURCES LIMITED	ALK	Materials
ALLIANCE RESOURCES LIMITED	AGS	Materials
ALS LIMITED	ALQ	Commercial & Professional Services
ALTIUM LIMITED	ALU	Software & Services
ALUMINA LIMITED	AWC	Materials
AMBITION GROUP LIMITED	AMB	Commercial & Professional Services
AMCOR LIMITED	AMC	Materials
ANALYTICA LIMITED	ALT	Health Care Equipment & Services
ANDROMEDA METALS LIMITED	AND	Materials
ANGLO AUSTRALIAN RESOURCES NL	AAR	Materials
ANSELL LIMITED	ANN	Health Care Equipment & Services
AP EAGERS LIMITED	APE	Retailing
ARB CORPORATION LIMITED.	ARB	Automobiles & Components
ARC EXPLORATION LIMITED	ARX	Materials
ARGONAUT RESOURCES NL	ARE	Materials

Appendix 1: Australian listed firms included in the study sample

ARIADNE AUSTRALIA LIMITED	ARA	Commercial & Professional Services
ARISTOCRAT LEISURE LIMITED	ALL	Consumer Services
ASPERMONT LIMITED.	ASP	Media & Entertainment
ASTRO RESOURCES NL	ARO	Materials
ASTRON CORPORATION LIMITED	ATR	Materials
ASX LIMITED	ASX	Diversified Financials
ATLAS PEARLS LTD	ATP	Consumer Durables & Apparel
AUCKLAND INTERNATIONAL AIRPORT LIMITED	AIA	Transportation
AUSDRILL LIMITED	ASL	Materials
AUSTAL LIMITED	ASB	Capital Goods
AUSTPAC RESOURCES NL	APG	Materials
ADCORP AUSTRALIA LIMITED	AAU	Media & Entertainment
AUSTRALIAN PACIFIC COAL LIMITED	AQC	Materials
AUSTRALIAN VINTAGE LTD	AVG	Food, Beverage & Tobacco
AUSTSINO RESOURCES GROUP LIMITED	ANS	Materials
AVEO GROUP	AOG	Real Estate
AVJENNINGS LIMITED	AVJ	Real Estate
ALUMINA LIMITED	AWC	Materials
AXIOM PROPERTIES LIMITED	AXI	Real Estate
BEACH ENERGY LIMITED	BPT	Energy
BENITEC BIOPHARMA LIMITED	BLT	Pharmaceuticals, Biotechnology & Life Sciences
BHP GROUP LIMITED	BHP	Materials
BIONOMICS LIMITED	BNO	Pharmaceuticals, Biotechnology & Life Sciences
BKM MANAGEMENT LIMITED	BKM	Commercial & Professional Services
BLACKMORES LIMITED	BKL	Household & Personal Products
BLAZE INTERNATIONAL LIMITED	BLZ	Energy
BORAL LIMITED.	BLD	Materials
BOTANIX PHARMACEUTICALS LTD	BOT	Pharmaceuticals, Biotechnology & Life Sciences
BOUGAINVILLE COPPER LIMITED	BOC	Materials
BREVILLE GROUP LIMITED	BRG	Retailing
BRISBANE BRONCOS LIMITED	BBL	Media & Entertainment
BROOKSIDE ENERGY LIMITED	BRK	Energy

Appendix 1: Australian listed firms included in the study sample

BSA LIMITED	BSA	Commercial & Professional Services
BUBS AUSTRALIA LIMITED	BUB	Food, Beverage & Tobacco
BUDERIM GROUP LIMITED	BUG	Food, Beverage & Tobacco
BYTE POWER GROUP LIMITED	BPG	Retailing
CCP TECHNOLOGIES LIMITED	CT1	Technology Hardware & Equipment
CALTEX AUSTRALIA LIMITED	CTX	Energy
CAPRAL LIMITED	CAA	Materials
CARBON ENERGY LIMITED	CNX	Energy
CARNARVON PETROLEUM LIMITED	CVN	Energy
CARNEGIE CLEAN ENERGY LIMITED	CCE	Utilities
CEDAR WOODS PROPERTIES LIMITED	CWP	Real Estate
CELLNET GROUP LIMITED	CLT	Technology Hardware & Equipment
CENTAURUS METALS LIMITED	CTM	Materials
CHALMERS LIMITED	CHR	Transportation
CHONGHERR INVESTMENTS LTD	CDH	Materials
CIMIC GROUP LIMITED	CIM	Capital Goods
CITIGOLD CORPORATION LIMITED	CTO	Materials
CHORUS LIMITED	CNU	Communication Services
CHASE MINING CORPORATION LIMITED	CML	Materials
COCA-COLA AMATIL LIMITED	CCL	Food, Beverage & Tobacco
COCHLEAR LIMITED	COH	Health Care Equipment & Services
COLLABORATE CORPORATION LIMITED	CL8	Retailing
COLLECTION HOUSE LIMITED	CLH	Diversified Financials
COMET RESOURCES LIMITED	CRL	Materials
COMET RIDGE LIMITED	COI	Energy
COMPUTERSHARE LIMITED.	CPU	Software & Services
CORUM GROUP LIMITED	COO	Software & Services
CPT GLOBAL LIMITED	CGO	Software & Services
CROWD MEDIA HOLDINGS LIMITED	CM8	Media & Entertainment
CSL LIMITED	CSL	Pharmaceuticals, Biotechnology & Life Sciences
CSR LIMITED	CSR	Materials

Appendix 1: Australian listed firms included in the study sample

CTI LOGISTICS LIMITED	CLX	Transportation
CUDECO LIMITED	CDU	Materials
CULLEN RESOURCES LIMITED	CUL	Materials
DATA#3 LIMITED	DTL	Software & Services
DALTON STREET CAPITAL PTY LTD	DSC	Materials
DIGITAL WINE VENTURES LIMITED	DW8	Retailing
DELECTA LIMITED	DLC	Retailing
DESANE GROUP HOLDINGS LIMITED	DGH	Real Estate
DEVINE LIMITED	DVN	Real Estate
DOWNER EDI LIMITED	DOW	Commercial & Professional Services
DROPSUITE LIMITED	DSE	Software & Services
DUBBER CORPORATION LIMITED	DUB	Software & Services
ELLEX MEDICAL LASERS LIMITED	ELX	Health Care Equipment & Services
EMBELTON LIMITED	EMB	Capital Goods
EMPIRE OIL & GAS NL	EGO	Energy
ENERGY WORLD CORPORATION LTD	EWC	Utilities
ENVIRONMENTAL GROUP LIMITED (THE)	EGL	Capital Goods
EQUATORIAL RESOURCES LIMITED	EQX	Materials
EQUUS MINING LIMITED	EQE	Materials
EUMUNDI GROUP LIMITED	EBG	Consumer Services
EVENT HOSPITALITY AND ENTERTAINMENT LTD	EVT	Media & Entertainment
EVZ LIMITED	EVZ	Capital Goods
FLEXIGROUP LIMITED	FXL	Diversified Financials
FAR LIMITED	FAR	Energy
FARM PRIDE FOODS LIMITED	FRM	Food, Beverage & Tobacco
FFI HOLDINGS LIMITED	FFI	Food, Beverage & Tobacco
FITZROY RIVER CORPORATION LTD	FZR	Energy
FLEETWOOD CORPORATION LIMITED	FWD	Consumer Durables & Apparel

Appendix 1: Australian listed firms included in the study sample

FLIGHT CENTRE TRAVEL GROUP LIMITED	FLT	Consumer Services
FLAMINGO AI LIMITED	FGO	Software & Services
FREEDOM FOODS GROUP LIMITED	FNP	Food, Beverage & Tobacco
FYI RESOURCES LIMITED	FYI	Materials
G.U.D. HOLDINGS LIMITED	GUD	Automobiles & Components
GALE PACIFIC LIMITED	GAP	Consumer Durables & Apparel
GALILEE ENERGY LIMITED	GLL	Energy
GATEWAY MINING LIMITED	GML	Materials
GAZAL CORPORATION LIMITED	GZL	Consumer Durables & Apparel
GENETIC TECHNOLOGIES LIMITED	GTG	Pharmaceuticals, Biotechnology & Life Sciences
GINDALBIE METALS LTD	GBG	Materials
GLOBAL HEALTH LIMITED	GLH	Health Care Equipment & Services
GO ENERGY GROUP LIMITED	GOE	Capital Goods
GOLDEN CROSS RESOURCES LTD	GCR	Materials
GOLDEN DEEPS LIMITED.	GED	Materials
GOLDEN RIM RESOURCES LTD	GMR	Materials
GRAINCORP LIMITED	GNC	Food, Beverage & Tobacco
GULLEWA LIMITED	GUL	Materials
GWA GROUP LIMITED.	GWA	Capital Goods
HAMPTON HILL MINING NL	HHM	Materials
HANSEN TECHNOLOGIES LIMITED	HSN	Software & Services
HANNANS LTD	HNR	Materials
HARRIS TECHNOLOGY GROUP LIMITED	HT8	Retailing
HARVEY NORMAN HOLDINGS LIMITED	HVN	Retailing
HAWKSTONE MINING LIMITED	HWK	Materials
HERON RESOURCES LIMITED	HRR	Materials
HGL LIMITED	HNG	Capital Goods
HILLGROVE RESOURCES LIMITED	HGO	Materials
HILLS LIMITED	HIL	Technology Hardware & Equipment
HITECH GROUP AUSTRALIA LIMITED	HIT	Commercial & Professional Services

Appendix 1: Australian listed firms included in the study sample

HORIZON OIL LIMITED	HZN	Energy
HUDSON INVESTMENT GROUP LIMITED	HGL	Real Estate
HUTCHISON TELECOMMUNICATIONS (AUSTRALIA) LIMITED	HTA	Communication Services
ICON ENERGY LIMITED	ICN	Energy
ICSGLOBAL LIMITED	ICS	Health Care Equipment & Services
IDT AUSTRALIA LIMITED	IDT	Pharmaceuticals, Biotechnology & Life Sciences
ILUKA RESOURCES LIMITED	ILU	Materials
IMDEX LIMITED	IMD	Materials
IMF BENTHAM LIMITED	IMF	Diversified Financials
IMMURON LIMITED	IMC	Pharmaceuticals, Biotechnology & Life Sciences
IMUGENE LIMITED	IMU	Pharmaceuticals, Biotechnology & Life Sciences
INDIANA RESOURCES LIMITED	IDA	Materials
IDT AUSTRALIA LIMITED	IDT	Pharmaceuticals, Biotechnology & Life Sciences
INFOMEDIA LTD	IFM	Software & Services
INTERMIN RESOURCES LIMITED	IRC	Materials
INTERNATIONAL EQUITIES CORPORATION LIMITED.	IEQ	Real Estate
INVENTIS LIMITED	IVT	Commercial & Professional Services
INVIGOR GROUP LIMITED	IVO	Media & Entertainment
IRESS LIMITED	IRE	Software & Services
ISIGNTHIS LTD	ISX	Software & Services
JERVOIS MINING LIMITED	JRV	Materials
JOYCE CORPORATION LTD	JYC	Retailing
JUMBO INTERACTIVE LIMITED	JIN	Consumer Services
LIFESPOT HEALTH LTD	LSH	Health Care Equipment & Services
KALINA POWER LIMITED	KPO	Utilities
KING ISLAND SCHEELITE LIMITED	KIS	Materials
KINGSGATE CONSOLIDATED LIMITED.	KCN	Materials
KINGSTON RESOURCES LIMITED	KSN	Materials
KOLLAKORN CORPORATION LIMITED	KKL	Technology Hardware & Equipment
KORVEST LTD	KOV	Capital Goods
KRESTA HOLDINGS LIMITED	KRS	Consumer Durables & Apparel

Appendix 1: Australian listed firms included in the study sample

LAKES OIL NL	LKO	Energy
LANEWAY RESOURCES LTD	LNY	Materials
LEAF RESOURCES LTD	LER	Materials
LEGEND MINING LIMITED	LEG	Materials
LENDLEASE GROUP	LLC	Real Estate
LEPIDICO LTD	LPD	Materials
LIFESTYLE COMMUNITIES LIMITED	LIC	Real Estate
LINDIAN RESOURCES LIMITED	LIN	Materials
LINDSAY AUSTRALIA LIMITED	LAU	Transportation
LION ENERGY LIMITED	LIO	Energy
LYNAS CORPORATION LIMITED	LYC	Materials
MACMAHON HOLDINGS LIMITED	MAH	Materials
MACQUARIE TELECOM GROUP LIMITED	MAQ	Communication Services
MAGNUM MINING AND EXPLORATION LIMITED	MGU	Materials
MAGONTEC LIMITED	MGL	Materials
MARENICA ENERGY LTD	MEY	Energy
MAXITRANS INDUSTRIES LIMITED	MXI	Capital Goods
MITCHELL SERVICES LIMITED	MSV	Capital Goods
MCPHERSON'S LIMITED	MCP	Consumer Durables & Apparel
MERCHANT HOUSE INTERNATIONAL LIMITED	MHI	Consumer Durables & Apparel
MESA MINERALS LIMITED	MAS	Materials
MINCOR RESOURCES NL	MCR	Materials
MINERAL COMMODITIES LTD	MRC	Materials
MEDLAB CLINICAL LIMITED	MDC	Pharmaceuticals, Biotechnology & Life Sciences
MIRVAC GROUP	MGR	Real Estate
MMA OFFSHORE LIMITED	MRM	Transportation
MOD RESOURCES LIMITED	MOD	Materials
MOLOPO ENERGY LIMITED	MPO	Energy
MONADELPHOUS GROUP LIMITED	MND	Capital Goods
MORETON RESOURCES LTD	MRV	Energy
MOUNT BURGESS MINING NL	MTB	Materials

Appendix 1: Australian listed firms included in the study sample

MULTISTACK INTERNATIONAL LIMITED	MSI	Capital Goods
NAMOI COTTON LIMITED	NAM	Commercial & Professional Services
NEARMAP LTD	NEA	Commercial & Professional Services
NETCOMM WIRELESS LIMITED	NTC	Technology Hardware & Equipment
NEWCREST MINING LIMITED	NCM	Materials
NICKELORE LIMITED	NIO	Materials
NONI B LIMITED	NBL	Retailing
NEW ENERGY SOLAR	NEW	Utilities
OBJ LIMITED	OBJ	Pharmaceuticals, Biotechnology & Life Sciences
OBJECTIVE CORPORATION LIMITED	OCL	Software & Services
OIL SEARCH LIMITED	OSH	Energy
OLDFIELDS HOLDINGS LIMITED	OLH	Capital Goods
OPTHEA LIMITED	OPT	Pharmaceuticals, Biotechnology & Life Sciences
ORBITAL CORPORATION LIMITED	OEC	Capital Goods
ORICA LIMITED	ORI	Materials
ORIGIN ENERGY LIMITED	ORG	Energy
ORO VERDE LIMITED	OVL	Materials
ORECORP LIMITED	ORR	Materials
OZ MINERALS LIMITED	OZL	Materials
PACIFIC ENERGY LIMITED	PEA	Utilities
PALADIN ENERGY LTD	PDN	Energy
PRAEMIUM LIMITED	PPS	Software & Services
PANCONTINENTAL OIL & GAS NL	PCL	Energy
PENINSULA ENERGY LIMITED	PEN	Energy
PETSEC ENERGY LIMITED	PSA	Energy
PUREPROFILE LTD	PPL	Media & Entertainment
PRO MEDICUS LIMITED	PME	Health Care Equipment & Services
POLYNOVO LIMITED	PNV	Pharmaceuticals, Biotechnology & Life Sciences
PPK GROUP LIMITED	PPK	Capital Goods
PRESCIENT THERAPEUTICS LIMITED	PTX	Pharmaceuticals, Biotechnology & Life Sciences
PACIFIC SMILES GROUP LIMITED	PSQ	Health Care Equipment & Services
PINNACLE INVESTMENT MANAGEMENT GROUP LIMITED	PNI	Diversified Financials

Appendix 1: Australian listed firms included in the study sample

PRIME MEDIA GROUP LIMITED	PRT	Media & Entertainment
PRO MEDICUS LIMITED	PME	Health Care Equipment & Services
PLATINUM CAPITAL LIMITED	PMC	Diversified Financials
PROPHECY INTERNATIONAL HOLDINGS LIMITED	PRO	Software & Services
Q TECHNOLOGY GROUP LIMITED	QTG	Technology Hardware & Equipment
QANTAS AIRWAYS LIMITED	QAN	Transportation
RAMSAY HEALTH CARE LIMITED	RHC	Health Care Equipment & Services
RAND MINING LIMITED	RND	Materials
RCR TOMLINSON LIMITED	RCR	Capital Goods
REA GROUP LTD	REA	Media & Entertainment
RECKON LIMITED	RKN	Software & Services
RECTIFIER TECHNOLOGIES LTD	RFT	Capital Goods
RED 5 LIMITED	RED	Materials
REDBANK COPPER LIMITED	RCP	Materials
REDFLEX HOLDINGS LIMITED	RDF	Technology Hardware & Equipment
REECE LIMITED	REH	Capital Goods
REGIS RESOURCES LIMITED	RRL	Materials
RENT.COM.AU LIMITED	RNT	Media & Entertainment
RESOURCE MINING CORPORATION LIMITED	RMI	Materials
RIDLEY CORPORATION LIMITED	RIC	Food, Beverage & Tobacco
RIMFIRE PACIFIC MINING NL	RIM	Materials
RIO TINTO LIMITED	RIO	Materials
REDBUBBLE LIMITED	RBL	Retailing
RECTIFIER TECHNOLOGIES LTD	RFT	Capital Goods
RURALCO HOLDINGS LIMITED	RHL	Retailing
SAMSON OIL & GAS LIMITED	SSN	Energy
SANTOS LIMITED	STO	Energy
SARACEN MINERAL HOLDINGS LIMITED	SAR	Materials
SCHAFFER CORPORATION LIMITED	SFC	Automobiles & Components
SDI LIMITED	SDI	Health Care Equipment & Services
SECOS GROUP LTD	SES	Materials
SELECT HARVESTS LIMITED	SHV	Food, Beverage & Tobacco

Appendix 1: Australian listed firms included in the study sample

SENETAS CORPORATION LIMITED	SEN	Technology Hardware & Equipment
SENEX ENERGY LIMITED	SXY	Energy
SERVCORP LIMITED	SRV	Real Estate
SEVEN WEST MEDIA LIMITED	SWM	Media & Entertainment
SIETEL LIMITED	SSL	Real Estate
SIHAYO GOLD LIMITED	SIH	Materials
SILEX SYSTEMS LIMITED	SLX	Semiconductors & Semiconductor Equipment
SHAREROOT LTD	SRO	Software & Services
SITE GROUP INTERNATIONAL LIMITED	SIT	Consumer Services
SECURITY MATTERS LIMITED	SMX	Software & Services
SONIC HEALTHCARE LIMITED	SHL	Health Care Equipment & Services
SOUTHERN CROSS EXPLORATION N.L.	SXX	Materials
SPARK NEW ZEALAND LIMITED	SPK	Communication Services
SHEFFIELD RESOURCES LIMITED	SFX	Materials
SPICERS LIMITED	SRS	Capital Goods
SPIRIT TELECOM LIMITED	ST1	Communication Services
SRG GLOBAL LIMITED	SRG	Capital Goods
ST BARBARA LIMITED	SBM	Materials
STARGROUP LIMITED	STL	Technology Hardware & Equipment
STEAMSHIPS TRADING COMPANY LIMITED	SST	Capital Goods
SERKO LIMITED	SKO	Software & Services
STRATEGIC MINERALS CORPORATION NL	SMC	Materials
STRIKE RESOURCES LIMITED	SRK	Materials
SUN RESOURCES NL	SUR	Energy
SUNDANCE RESOURCES LIMITED	SDL	Materials
SUPPLY NETWORK LIMITED	SNL	Retailing
SUREFIRE RESOURCES NL	SRN	Materials
SWIFT MEDIA LIMITED	SW1	Media & Entertainment
TABCORP HOLDINGS LIMITED	TAH	Consumer Services
TALGA RESOURCES LTD	TLG	Materials
TIKFORCE LIMITED	TKF	Software & Services
TAMAWOOD LIMITED	TWD	Consumer Durables & Apparel

Appendix 1: Australian listed firms included in the study sample

TBG DIAGNOSTICS LIMITED	TDL	Pharmaceuticals, Biotechnology & Life Sciences
TECHNICHE LIMITED.	TCN	Software & Services
TELSTRA CORPORATION LIMITED.	TLS	Communication Services
THORNEY OPPORTUNITIES LTD	TOP	Not Applicable
THREAT PROTECT AUSTRALIA LIMITED	TPS	Class Pend
TIAN AN AUSTRALIA LIMITED	TIA	Real Estate
TNG LIMITED	TNG	Materials
TOMIZONE LIMITED	TOM	Communication Services
TORIAN RESOURCES LIMITED	TNR	Materials
TLOU ENERGY LIMITED	TOU	Energy
TROY RESOURCES LIMITED	TRY	Materials
TRUSTEES AUSTRALIA LIMITED	TAU	Consumer Services
TZ LIMITED	TZL	Technology Hardware & Equipment
UNITED OVERSEAS AUSTRALIA LIMITED	UOS	Real Estate
VARISCAN MINES LIMITED	VAR	Materials
VIETNAM INDUSTRIAL INVESTMENTS LIMITED	VII	Materials
VAULT INTELLIGENCE LIMITED	VLT	Software & Services
WATERCO LIMITED	WAT	Consumer Durables & Apparel
WISETECH GLOBAL LIMITED	WTC	Software & Services
WAM CAPITAL LIMITED	WAM	Diversified Financials
WEBJET LIMITED	WEB	Retailing
WEBSTER LIMITED	WBA	Food, Beverage & Tobacco
WESFARMERS LIMITED	WES	Retailing
WOODSIDE PETROLEUM LTD	WPL	Energy
WOOLWORTHS GROUP LIMITED	WOW	Food & Staples Retailing
WHITE ROCK MINERALS LIMITED	WRM	Materials
WPP AUNZ LTD	WPP	Media & Entertainment
ZENITH MINERALS LIMITED	ZNC	Materials
ZICOM GROUP LIMITED	ZGL	Capital Goods
ZIMPLATS HOLDINGS LIMITED	ZIM	Materials

Appendix 2: IFRS/IAS standards comparing with GAAP standards

Table 18: IFRS.

IFRS 1	First-Time Adoption of International Financial Reporting Standards
IFRS 2	Share-based Payment
IFRS 3	Business Combinations
IFRS 4	Insurance Contracts
IFRS 5	Non-current Assets Held for Sale and Discontinued Operations
IFRS 6	Exploration for and Evaluation of Mineral Resources
IFRS 7	Financial Instruments: Disclosures
IFRS 8	Operating Segments
IFRS 9	Financial Instruments
IFRS 10	Consolidated Financial Statements
IFRS 11	Joint Arrangements
IFRS 12	Disclosure of Interests in Other Entities
IFRS 13	Fair Value Measurement
IFRS 14	Regulatory Deferral Accounts
IFRS 15	Revenue from Contracts with Customers
IFRS 16	Leases

Table 19: IAS.

IAS 1	Presentation of Financial Statements
IAS 2	Inventories
IAS 7	Statement of Cash Flows
IAS 8	Accounting Policies, Changes in Accounting Estimates and Errors
IAS 10	Events after the Reporting Period
IAS 11	Construction Contracts
IAS 12	Income Taxes
IAS 16	Property, Plant and Equipment
IAS 17	Leases
IAS 18	Revenue
IAS 19	Employee Benefits
IAS 20	Accounting for Government Grants and Disclosure of Government Assistance
IAS 21	The Effects of Changes in Foreign Exchange Rates
IAS 23	Borrowing Costs
IAS 24	Related Party Disclosures
IAS 26	Accounting and Reporting by Retirement Benefit Plans
IAS 27	Separate Financial Statements

Appendix 2: IFRS/IAS standards comparing with GAAP standards

IAS 28	Investments in Associates and Joint Ventures
IAS 29	Financial Reporting in Hyperinflationary Economies
IAS 32	Financial Instruments: Presentation
IAS 33	Earnings per Share
IAS 34	Interim Financial Reporting
IAS 36	Impairment of Assets
IAS 37	Provisions, Contingent Liabilities and Contingent Assets
IAS 38	Intangible Assets
IAS 39	Financial Instruments: Recognition and Measurement
IAS 40	Investment Property
IAS 41	Agriculture

Table 20: US GAAP

ASU 2017-08, Receivables – Non-refundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities
ASU 2017-07, Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost
ASU 2017-06, Plan Accounting: Defined Benefit Pension Plans (Topic 960), Defined Contribution Pension Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965): Employee Benefit Plan Master Trust Reporting (a consensus of the Emerging Issues Task Force)
ASU 2017-05, Other Income – Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets
ASU 2017-04, Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment
ASU 2017-03, Accounting Changes and Error Corrections (Topic 250) and Investments – Equity Method and Joint Ventures (Topic 323): Amendments to SEC Paragraphs Pursuant to Staff Announcements at the September 22, 2016 and November 17, 2016 EITF Meetings (SEC Update)
ASU 2017-02, Not-for-Profit Entities – Consolidation (Subtopic 958-810): Clarifying When a Not-for-Profit Entity That Is a General Partner or a Limited Partner Should Consolidate a For-Profit Limited Partnership or Similar Entity
ASU 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business
ASU 2016-20, Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers
ASU 2016-19, Technical Corrections and Improvements
ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force)

Appendix 2: IFRS/IAS standards comparing with GAAP standards

ASU 2016-17, Consolidation (Topic 810): Interests Held through Related Parties That Are under Common Control
ASU 2016-16, Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory
ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (a consensus of the Emerging Issues Task Force)
ASU 2016-14, Not-for-Profit Entities (Topic 958): Presentation of Financial Statements of Not-for-Profit Entities
ASU 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments
ASU 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients
ASU 2016-11, Revenue Recognition (Topic 605) and Derivatives and Hedging (Topic 815): Rescission of SEC Guidance Because of Accounting Standards Updates 2014-09 and 2014-16 Pursuant to Staff Announcements at the March 3, 2016 EITF Meeting (SEC Update)
ASU 2016-10, Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing
ASU 2016-09, Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting
ASU 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)
ASU 2016-07, Investments – Equity Method and Joint Ventures (Topic 323); Simplifying the Transition to the Equity Method of Accounting
ASU 2016-06, Derivatives and Hedging (Topic 815): Contingent Put and Call Options in Debt Instruments (a consensus of the Emerging Issues Task Force)
ASU 2016-05, Derivatives and Hedging (Topic 815): Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships (a consensus of the Emerging Issues Task Force)
ASU 2016-04, Liabilities – Extinguishments of Liabilities (Subtopic 405-20): Recognition of Breakage for Certain Prepaid Stored-Value Products (a consensus of the Emerging Issues Task Force)
ASU 2016-03, Intangibles – Goodwill and Other (Topic 350), Business Combinations (Topic 805), Consolidation (Topic 810), Derivatives and Hedging (Topic 815): Effective Date and Transition Guidance (a consensus of the Private Company Council)
ASU 2016-02, Leases (Topic 842)
ASU 2016-01, Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities
ASU 2015-17, Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes
ASU 2015-16, Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments

Appendix 2: IFRS/IAS standards comparing with GAAP standards

ASU 2015-15, Interest – Imputation of Interest (Subtopic 835-30): Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements – Amendments to SEC Paragraphs Pursuant to Staff Announcement at June 18, 2015 EITF Meeting (SEC Update)
ASU 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date
ASU 2015-13, Derivatives and Hedging (Topic 815): Application of the Normal Purchases and Normal Sales Scope Exception to Certain Electricity Contracts within Nodal Energy Markets (a consensus of the FASB Emerging Issues Task Force)
ASU 2015-12, Plan Accounting: Defined Benefit Pension Plans (Topic 960), Defined Contribution Pension Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965): (Part I) Fully Benefit-Responsive Investment Contracts, (Part II) Plan Investment Disclosures, (Part III) Measurement Date Practical Expedient (consensuses of the FASB Emerging Issues Task Force)
ASU 2015-11, Inventory (Topic 330): Simplifying the Measurement of Inventory
ASU 2015-10, Technical Corrections and Improvements
ASU2015-09, Financial Services – Insurance (Topic 944): Disclosures about Short-Duration Contracts
ASU 2015-08, Business Combinations (Topic 805): Pushdown Accounting – Amendments to SEC Paragraphs Pursuant to Staff Accounting Bulletin No. 115 (SEC Update)
ASU 2015-07, Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent) (a consensus of the FASB Emerging Issues Task Force)
ASU 2015-06, Earnings Per Share (Topic 260): Effects on Historical Earnings per Unit of Master Limited Partnership Dropdown Transactions (a consensus of the FASB Emerging Issues Task Force)
ASU 2015-05, Intangibles – Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Fees Paid in Cloud Computing Arrangement
ASU 2014-04, Compensation – Retirement Benefits (Topic 715): Practical Expedient for the Measurement Date of an Employer’s Defined Benefit Obligation and Plan Assets
ASU 2015-03, Interest – Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs
ASU 2015-02, Consolidation (Topic 810): Amendments to the Consolidation Analysis
ASU 2015-01, Income Statement-Extraordinary and Unusual Items (Subtopic 225-20): Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items
ASU 2014-18, Business Combinations (Topic 805): Accounting for Identifiable Intangible Assets in a Business Combination (a consensus of the Private Company Council)
ASU 2014-17, Business Combinations (Topic 805): Pushdown Accounting (a consensus of the FASB Emerging Issues Task Force)

Appendix 2: IFRS/IAS standards comparing with GAAP standards

ASU 2014-16, Derivatives and Hedging (Topic 815): Determining Whether the Host Contract in a Hybrid Financial Instrument Issued in the Form of a Share is More Akin to Debt or to Equity (a consensus of the FASB Emerging Issues Task Force)
ASU 2014-15, Presentation of Financial Statements-Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern
ASU 2014-14, Receivables-Troubled Debt Restructurings by Creditors (Subtopic 310-40): Classification of Certain Government-Guaranteed Mortgage Loans Upon Foreclosure (a consensus of the FASB Emerging Issues Task Force)
ASU 2014-13, Consolidation (Topic 810): Measuring the Financial Assets and the Financial Liabilities of a Consolidated Collateralized Financing Entity (a consensus of the FASB Emerging Issues Task Force)
ASU 2014-12, Compensation – Stock Compensation (Topic 718): Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could be Achieved After the Requisite Service Period (a consensus of the FASB Emerging Issues Task Force)
ASU 2014-11, Transfers and Servicing (Topic 860): Repurchase-to-Maturity Transactions, Repurchase Financings and Disclosures
ASU 2014-10, Development Stage Entities (Topic 915): Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation
ASU 2014-09, Revenue from Contracts from Customers (Topic 606)
ASU 2014-08, Presentation of Financial Statements (Topic 205) and Property, Plant and Equipment (Topic 360): Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity
ASU 2014-07, Consolidation (Topic 810) – Applying Variable Interest Entities Guidance to Common Control Leasing Arrangements (a consensus of the Private Company Council)
ASU 2014-06, Technical Corrections and Improvements Related to Glossary Terms
ASU 2014-05, Service Concession Arrangements (Topic 853) (a consensus of the FASB Emerging Issues Task Force)
ASU 2014-04, Receivables – Troubled Debt Restructurings by Creditors (Subtopic 310-40): Reclassification of Residential Real Estate Collateralized Consumer Mortgage Loans upon Foreclosure (a consensus of the FASB Emerging Issues Task Force)
ASU 2014-03, Derivatives and Hedging (Topic 815): Accounting for Certain Receive-Variable, Pay-Fixed Interest Rate Swaps – Simplified Hedge Accounting Approach (a consensus of the Private Company Council)
ASU 2014-02, Intangibles – Goodwill and Other (Topic 350): Accounting for Goodwill (a consensus of the Private Company Council)

Appendix 2: IFRS/IAS standards comparing with GAAP standards

ASU 2014-01, Investments—Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Qualified Affordable Housing Projects (a consensus of the FASB Emerging Issues Task Force)