THE IMPACT OF FINANCIAL KNOWLEDGE AND CAPABILITIES ON SME FIRM PERFORMANCE IN AUSTRALIA

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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STATEMENT OF AUTHORSHIP

I certify that except where due acknowledgement has been made, the research is that of the author alone; the research has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of research which has been carried out since the official commencement date of the approved research program; and, any editorial work, paid or unpaid, carried out by a third party is acknowledged.

Norhayati Sulaiman

September 2016
DEDICATION

This dissertation is dedicated to

my beloved parents, Sulaiman Khalidun and Siti Aishah Salleh

and,

the love of my life, Muhamad Fyras Nawfal.
ACKNOWLEDGEMENTS

First and foremost, I would like to praise and thank Allah SWT, the almighty, who has granted countless blessings and everything to me, so that I have been finally able to accomplish the thesis. There were times that my faith was the only thing that got me through. Thank you for the blessings of Your favour upon my life.

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ABSTRACT

Today’s markets are increasingly complex and competitive. Firms need to be able to pivot within a constantly evolving market environment. Disruption in markets is becoming more common. In the light of these dynamics, it is argued that financial knowledge and capabilities are essential ingredients for firm success. Financial knowledge and capabilities may help firms to manage their financial requirements in a timely and effective manner, leading to better firm performance.

This research links the literature on financial knowledge and capabilities and firm performance in Small and Medium Enterprises (SMEs). In particular, the financial resources construct is conceptualised using insights from financial literacy research. Financial literacy literature sits mostly at the individual level. This research is an attempt to broaden its application and link financial literacy to the Resource Based View of organisations. The conceptual framework and findings of this research expand on current theories of entrepreneurship, financial literacy and management.

Data has been collected from Small and Medium Enterprises operating in Australia. The analyses, using factor analysis and multiple regression analysis, gives rise to interesting outcomes. Based on investigations of the hypothesised relationships, it is found that a general business education (Master in Business Administration degree), and the firm’s learning orientation to be the most influential determinants and drivers of firm performance. A generalised understanding of business and the ability to learn, adapt and pivot is what matters. Interestingly, the analysis demonstrates that Chief Financial Officer (CFO) experience and the financial resource dimensions do not significantly influence firm performance.
Having a general learning orientation coupled with a general management capability seems more important than more specialised finance capabilities. This suggests that general learning capabilities, rather than specialised financial knowledge and capabilities, is a key asset for firm performance in Australian SME’s.

A further contribution of this research is the development of a theoretical framework that maps out the relative strength of the relationships between financial resources, learning orientation, and firm performance in the context of SMEs. Given that so many things can go wrong in any SME, the performance outcomes of a set of domain specific financial resources may be less strongly related to performance as has been previously anticipated.

The research further finds that including interaction variables in the model does not necessarily improve fit and understanding of the relationships between financial resources and firm performance. Specifically, the interactions of learning orientation and CFO experience with financial resources have no significant additional impact on firm performance. The results clearly suggest MBA education and a general learning orientation are the crucially important resources that drive SME performance.

Finally, given the ‘resilience’ conceptualisation of financial knowledge and capabilities as developed within this research, an alternative explanation for the lack of support for a significant financial resources and performance relationship may be that the financial literacy literature is difficult to integrate into studies at the organisational level. This gives rise to the need for more research on how the financial literacy literature can inspire broader organisational level performance studies.
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CHAPTER ONE
INTRODUCTION

1.1 Introduction

The focus of this research is to examine the impact of financial knowledge and capabilities on firm performance. Financial knowledge and capabilities (also labelled as ‘financial resources’) in organisations go beyond just knowing what goes on in the financial world. It is about understanding a firm’s finances and risks so that sustainable decisions can be made to avoid financial loss and distress. In theory, financial resources are thought to be important for ensuring ongoing organisational performance. Less domain specific resources, such as general learning capabilities, may also be an important determinant of success.

Today’s financial markets and businesses have become progressively complex. It is important to identify ways to enable firms, especially small business that have a significant impact on the economy, to access the financial knowledge and capabilities that are needed to make good management decisions. The firm may have the most innovative business idea and products available but that may not be enough. There are important benefits for firms who are financially resourceful and aware. Financial knowledge and capabilities may help the firm to perform efficiently. Firms that understand and are able to accurately assess their financial positions would be able to mitigate market upswings and escape market downswings. Without having adequate financial knowledge and capabilities, the firm may find it difficult to insulate their business or plan for the future. Given there is a higher failure rate in the first years of a business start-up (Wang 2008), financial knowledge and capabilities may be a key factor in ensuring ongoing sustainability of the firm. If a firm does not have the essential
financial resources the probability of failure in the earlier stages of operation may be greater. With a solid financial knowledge and capability, it is anticipated that there would exist an increased potential for the firm to evolve into a larger enterprise. Improving financial capability is thought not only to enable the firm to make efficient decisions, but also to contribute positively to firm performance.

This research undertakes an assessment of the rapidly growing body of research on financial literacy to inform the conceptualisation of our Financial Resources and Capability concept. The existing conceptual definition of financial literacy speaks about ability and knowledge, but makes no attempt to broaden the concept to the organisational level. This research attempts to synthesise the financial literacy research to a broader conceptual framework.

Two other important concepts are introduced into this relationship, the learning orientation of the firm (as either an enabler of the utilisation of financial resources, or as an alternate firm level driver of performance) and the experience of the Chief Financial Officer (as an individual level complement to firm financial resources). Although financial knowledge and capabilities may be used to predict firm’s outcomes, it does not necessarily imply that they would work in a way that would benefit the firm. Other factors such as learning orientation and CFO experience may also contribute to firm performance.

The background and key concepts of the research are clarified in Section 1.2, followed by statement of the particular problems addressed in Section 1.3. The objectives of the research are outlined in Section 1.4, which leads to the development of the research questions in Section 1.5. Section 1.6 discusses the context of the research, and in particular the focus on small and medium enterprises in Australia. Section 1.7 clarifies
further the needs the research addresses. The significance of the research proposed, theoretically and practically, is considered in Section 1.8, followed by the thesis structure in Section 1.9.

1.2 Background of the Research

Key forces continue to drive rapid changes in financial markets. These include globalisation, the advancement of information technology, financial market deregulation and importantly the emergence of a knowledge-based economy. The knowledge-based economy refers to “economies, which are directly based on the production, distribution and use of knowledge and information” (Organisation for Economic Cooperation and Development 1996, p. 7). This has been extended to encompass a more elusive set of competencies (Visser & Visser-Valfrey 2008) in the firm. In particular, financial knowledge and capabilities, learning orientation and Chief Financial Officer experience are variables that may have an impact within a knowledge-based economy. They may be central to strategic responses to change within a globally competitive environment. It is conjectured here that firm performance will be competitive when specialising in high value-added goods and services, which are produced by highly skilled ‘knowledge firms’. This view shapes the importance of financial knowledge and capabilities, learning orientation and CFO experience, based on the position that the performance of the firm requires better skills in financial knowledge and capabilities and high levels of learning orientation and CFO experience to effectively compete in a globally integrated market place. A knowledge-based economy requires firms to acquire financial knowledge and capabilities, learning orientation and CFO experience in order to improve firm competitiveness and productivity. It includes not just factual, “how-to” resources, which can be made explicit, but also more tacit and implicit resources difficult to articulate by competitors (Grant 1996; Wiklund & Shepherd 2003).
As financial markets become progressively more sophisticated, firms need to be better able to manage financial risks. It is anticipated that financial knowledge and capabilities would also become increasingly important for firms in order to make good investment and financing decisions. Financial knowledge and capabilities can provide a firm with the information they need, and the abilities to use this, to make viable decisions. A firm that recognises financial knowledge and capabilities as a key resource may be better placed to cut through market noise to get at the most important financial implications needed to make good decisions. While financial information overload may handicap firms in decision making, putting financial knowledge and capabilities in place can help inform decisions. Financial knowledge and capabilities can be an essential strategic resource for the efficient allocation of finance and for greater financial stability. Firms with a good understanding of financial knowledge and capabilities would be expected to be better placed than firms without those skills. Lack of financial knowledge and capabilities can also result in circumstances that make firms vulnerable to severe financial crises (Mason & Wilson 2000), leading to a lower rate of longer-term performance and higher risk of cyclical volatility in the firm. Indeed, financial knowledge and capabilities can help the firms to cover unpredictable eventualities and provide financial security.

Any firm acting in a dynamic environment and trying to sustain and achieve competitive performance is likely to need learning orientation that is also dynamic. Learning orientation is a source of flexibility, adaptability and competitive advantage, which has been shown (Spicer & Sadler-Smith 2006) to be associated with superior firm performance (Baker & Sinkula 1999; Zahra & Garvis 2000; Farrell & Oczkowski 2002; Mahmood & Hanafi 2013). Firms with a learning orientation tend to be more successful (Baker & Sinkula 1999; Zahra & Garvis 2000). Learning orientation has been observed
as a stimulus that can increase the capacity of a firm when ‘responding to changes in the internal and external environments of the organisation’ (Argyris & Shön 1978, p. 29). Learning orientation refers to a firm-wide activity of creating and using knowledge to enhance competitive performance (Calantone et al. 2002). The ability to develop new knowledge faster than its competitors enables firms to quickly react to new environmental opportunities and threats (Slater & Narver 1995).

Contemporary studies have addressed the influence of functional top management team members (Menz 2012). Hambrick and Mason (1984) discuss Upper Echelons theory, arguing that executives make decisions based upon their idiosyncratic experiences. Although, it is important to note that CFOs of firms may influence the quality of financial reporting, the financial experience of CFOs could also be one of the factors that impact firm performance. It is argued that a firm with a CFO with stronger experience will have better insight and competence because the CFO will have deeper knowledge and skills to steer the firm, when compared to a firm with a CFO with less experience. This experience is expected to positively contribute to firm performance. A CFO with professional financial knowledge can help the firm oversee the management effectively (Kirkpatrick 2009). Moreover, a better understanding of financial affairs may mean less pressure from financial market changes and may assist with the implementation of strategic decisions.

1.3 Problem Statement

Small and Medium Enterprises (SMEs) was significantly impacted upon by the global financial crisis (Organisation for Economic Cooperation and Development 2009; Asian Development Bank- Organisation for Economic Cooperation and Development 2014). During 2008-09, more than 100,000 small businesses in Australia were given 12 month
interest free deferrals on their Goods and Services Tax (GST) obligations as well as having their taxes on profits deferred (Australian Taxation Office 2009) so as to assist them with this impact. Despite such measures, during the 2008-09 financial year 27,503 businesses were declared bankrupt (up from 25970 in 2007-08) and a further 9908 businesses ceased operating (up from 8575 in 2007-08) (Australian Taxation Office 2009, p. 57). Even with government support, SMEs in Australia continue to face difficulties and their contribution to the development of the country’s economy is decreasing (Braun 2007). Based on previous studies, one of the problems faced by SMEs in Australia is a lack of financial literacy skills (Halabi et al. 2010; Andoh & Nunoo 2011).

The Financial Literacy literature has been primarily focused on the individual (Hogarth 2002; Lusardi & Mitchell 2011) and has primarily been researched in the United States (Lusardi & Mitchell 2011). This research has most often been carried out using surveys to examine the impact of financial literacy on personal financial decision making. There is a research gap in looking at financial knowledge and capabilities at the firm level. This research attempts to extend this literature to SMEs with an Australian study.

In addition, this research explores the notion that learning orientation and the CFO’s experience may be moderating variables, which affect financial knowledge and capabilities’. Although, many scholars have analysed learning orientation in the management literature (Bapuji & Crossan 2004), to the best of our knowledge, none of the previous studies have undertaken research investigating the impact of learning orientation within the financial perspective. Much empirical literature highlights the importance of the CFO’s experience in maintaining the integrity of corporate financial reporting and underlying internal control processes of the firm (Aier et al. 2005; Li et al. 2010). The experience of the CFO may also play a significant role in determining the
sustainability of firm performance, since CFOs are generally responsible for supervising all of a firm’s financial operations. Surprisingly, empirical evidence regarding the relationship between CFO experience and firm performance is sparse. This is perhaps due to issues of measurability and a lack of available data (Thorsell & Isaksson 2014). The majority of previous studies have focused on the influence of experience from CEOs perspectives (Thorsell & Isaksson 2014). Moy and Luk (2003) theorise that the lack of experience among managers is an obstacle for growth in SMEs. The present research is the first to investigate the link between financial knowledge and capabilities, learning orientation, CFO experience and firm performance on SMEs in Australia.

1.4 Research Objectives

The aim of this thesis is to re-conceptualise financial knowledge and capabilities as a firm financial resource and then investigate its importance for SME firm performance. This analysis is extended by introducing the firm’s learning orientation and its CFO’s experience as additional, firm level variables. The objectives of the research are:

1. to define financial resources and identify the dimensions of financial resources;
2. to develop a firm-level measure of financial resources;
3. to critically investigate the impact of financial resources on firm performance;
4. to investigate the extent to which learning orientation contributes to firm performance;
5. to explore the extent to which CFO experience contributes to firm performance;
6. to explore the effect of learning orientation in moderating the influence of financial resources on firm performance;
7. to examine the effect of CFO experience in moderating the influence of financial resources on firm performance.
1.5 Research Questions

To achieve the objectives, the following research questions have been formulated:

1. What constitutes the financial resources construct?
2. Do financial resources measured at the firm-level explain firm performance?
3. How much does firm performance depend on learning orientation?
4. Does CFO experience have an impact on firm performance?
5. Does learning orientation affect and moderate the influence of financial resources on firm performance?
6. Does the experience of a CFO affect and moderate the influence of financial resources on firm performance?

Given a combined interest in financial resources, learning orientation, CFO experience and firm performance, this research examines the direct effects of a) financial resources b) learning orientation and c) CFO experience on firm performance. In addition, the interaction effects of financial resources and capabilities, learning orientation, and CFO experience on firm performance are also investigated.

1.6 Context of the Research

Financial knowledge and capabilities is an important area of research. It has been viewed as a solution for mitigating financial problems (Huston 2010). The important research has been focused on an individual level of analysis. The debates typically revolve around financial knowledge and capabilities as important inputs to models of the need for individuals in making informed financial decisions and have been used to explain variation in personal financial behaviours (Huston 2010; Lusardi 2012). Studies generally argue that financial knowledge and capabilities can increase the ability of individuals to make informed and effective decisions (Lusardi 2012). The economic
potential of financial knowledge and capabilities within a firm, which is made up of individuals, has remained unexamined. This research explores and develops a theory about financial knowledge and capabilities and firm performance. By examining financial knowledge and capabilities at the firm level of analysis, it is possible to carve out a distinct research domain with the potential to contribute notable knowledge to the field of financial literacy. In this research, financial knowledge and capabilities are operationalised using education, financial knowledge, financial attitudes and financial awareness as fundamental dimensions. In addition, this research aims to develop a valid and reliable measurement instrument that can be used by different stakeholders for future research and management development.

Post Global Financial Crisis, many firms continue to struggle to survive and to stay competitive. Learning orientation has been identified as a lasting source (Nonaka 1994) of a competitive strategy, which is critical for firm survival (Calantone et al. 2002). It refers to the set of organisational values that influence the propensity of the firm to create and use knowledge (Sinkula et al. 1997). Learning orientation can encourage entrepreneurial activities by enabling firms to innovate, create new businesses, and renew their operations (Zahra 2008). The ability to learn can be particularly crucial to SMEs in their quest for survival and growth in the face of an environment that can be hostile to smaller firms (Pett & Wolff 2010). Many studies have long acknowledged the importance of learning orientation for superior firm performance (Calantone et al. 2001; Sadler-Smith 2001; Kropp et al. 2006; Wang 2008; Nybakk 2012). Thus, the ability of the firm to promote and maintain such values may not only enhance the outcome of the firm, but also influence the relationship between financial knowledge and capabilities and firm performance.
Prior research suggests that the experience of a particular executive can influence strategic decision making processes and firm outcomes (Hambrick & Mason 1984; Jackson 1992). Experience of the industry may help CFOs to effectively contribute to strategic initiatives, promote the internal control system and provide financial direction within the firm. It is therefore important to research whether the experience of CFOs can help firms to build more effective and sustainable platforms for growth and whether it moderates the relationship between financial knowledge and capabilities and firm performance.

This research focuses on SMEs in Australia because this sector is recognised as being a significant contributor to economic growth and development of the country (Organisation for Economic Cooperation and Development 2005; Halabi et al. 2010). According to Telstra (2007) in *SME Trends and Achievements Report*, the role of SMEs has increased substantially in real terms over the last decade in producing international competitive advantage. Governments all around the world increasingly recognise the growing role of SMEs as an important engine for net job creation innovation, and productivity (Organisation for Economic Cooperation and Development 2010). The Asian Development Bank suggests that on average during 2007–2012 in Asia, SMEs accounted for ninety-eight per cent of the business population (Asian Development Bank-Organisation for Economic Cooperation and Development 2014). SMEs are the biggest employer and dominant form of business organisation in all countries. They account for about two-thirds of total employment (Organisation for Economic Cooperation and Development 2010). Large firms also contribute to the economic success of the country, however, SMEs bring a large percentage of Gross Domestic Product (GDP) and employment creation to the economy (Hall 1995; Asian Development Bank-Organisation for Economic Cooperation and Development 2014). Moreover, because of their size, SMEs are often much better at identifying and
embracing new markets and thus driving innovation within their respective sectors (Blagden 2012). It has also recognised that SMEs can act as an important seedbed for bigger enterprises (Berrios & Pilgrim 2013).

Certified Practicing Accountants Australia (2010) research indicates that it is important for SMEs to further develop their ability to manage liquidity, debt and cash flow in order to get access to finance. They suggest that SMEs need greater support to develop their financial knowledge and capabilities. It is evident that SME financial knowledge and capabilities differ from those in larger businesses. The SMEs sector is crucial to the Australian economy (Perera & Baker 2007). As such, the reasons for examining Australian SMEs arises due to the high vulnerability of these sectors and the great contribution that they contribute to the country’s economy.

1.7 Justification

1.7.1 Contextual

The issue of financial knowledge and capabilities at the firm level is worth academic investigation. However, much research has also been done at the individual-level analysis, which may be especially relevant in a SME context. The focus has most commonly been on financial decision making behaviours and its impact on financial well-being. Arguably, this evidence is not fully suited to understanding firm-level impacts. This research, therefore, intends to extend the analysis of financial knowledge and capabilities in the context of the firm. Many studies have documented a lack of academic research on the financial knowledge and capabilities (Worthington 2004; Marcolin & Abraham 2006; Remund 2010; Huston 2010; Taylor & Wagland 2011). To date, no study has yet been devoted to understanding financial knowledge and capabilities at the firm level. Given the importance of SMEs and the economy a better
understanding of the impact that financial knowledge and capabilities has is worthy of study. The present research addresses this by examining factors that influence financial knowledge and capabilities and explores their impact on firm performance. To do this, it is essential to craft a new financial knowledge and capabilities scale to study phenomena unique to the firm. Failure to carefully measure financial knowledge and capabilities may result in invalid and uninterpretable data. Although developing a measurement scale that would lead to valid and reliable results is a challenging task (Slavec & Drnovšek 2012). The present research aims to contribute to the development of rigorous measurement instruments in the financial literacy field by developing firm financial knowledge and capability measures. The research defines the construct of financial knowledge and capabilities and describes the development of the financial knowledge and capabilities scale. It is hoped that the development of this scale will help initiate a new line of research that explores the relationship between financial knowledge and capabilities and firm performance.

The role of the CFO is changing. Leading CFOs’ contributions now go far beyond the traditional finance remit to include a strong strategic and commercial focus (Ernst & Young 2010). Most research studies on CFOs have targeted large listed companies (Association of Chartered Certified Accountants 2012). The findings from studies that examine large companies cannot necessarily be applied to SMEs. Thus, further examination of experience on performance in different contexts is required to evaluate this influence (Kroll et al. 2008; Thorsell & Isaksson 2014). The present research therefore aims to provide further evidence on the impact of CFO experience on SME performance.
1.7.2 Methodological

This research takes a financial resource approach to organisational performance using insights from the financial literacy body of knowledge. The financial literacy literature is voluminous, and different definitions of financial knowledge and capabilities have arisen throughout this theoretical literature. A large part of the financial literacy debate has been on how researchers define and measure knowledge and capabilities (Hung et al. 2009). To date, financial literacy research has been dominated by individual level measurement instruments and there is still no standard measure for this skill (Huston, 2010). Deficiencies in measuring financial knowledge and capabilities have been repeatedly cited as a barrier to an understanding of the financial knowledge and capabilities construct (Marcolin & Abraham 2006; Hung et al. 2009; Remund 2010; Huston 2010). In addition, a majority of the studies do not elaborate on the construct used, requiring further construct clarification (Huston 2010; Remund 2010). Extensive research and testing is needed to determine consistency and more practical benchmarks for the measurement of financial knowledge and capabilities (Marcolin & Abraham 2006). Indeed, the development of valid and reliable measurement instruments can provide valuable insight for sharpening this debate. Therefore, the present research takes up the challenge to develop a firm-level financial knowledge and capabilities measurement instruments.

There is a need for further analysis in the area of organisational learning and firm performance using subjective measures (Michna 2009). It has been shown that subjective measures have great influence on firms’ decisions and behaviours in the development of the firm (Reijonen & Komppula 2007; Simpson et al. 2007).
1.7.3 Empirical evidence

Empirical research on financial knowledge and capabilities is modest (Worthington 2004; Marcolin & Abraham 2006; Huston 2010; Remund, 2010; Taylor & Wagland 2011). The present research extends the existing literature in a new direction by providing, testing and using an empirical measure of financial knowledge and capabilities at the firm level. Financial knowledge and capabilities are important skills required by a firm. Previous scholars have found a strong link between financial knowledge and capabilities and day-to-day financial management (Hilgert et al. 2003). Financial knowledge and capabilities can be explicitly linked with firm financial success and sustainability (Argiles & Slol 2003; Remund 2010). Scholars believe that no financial knowledge and capabilities study has yet achieved this (Remund 2010). Therefore, the present research tries to overcome this deficiency by applying a firm-level approach to the financial knowledge and capabilities and by analysing its impact on firm performance.

Researchers have acknowledged the importance of learning orientation to firms, however there exists relatively limited empirical research that tries to examine this area of learning and firm performance (Keskin 2006; Michna 2009). In addition, to date, very little research has been directed at how learning orientation can have an impact as an interaction variable. This has resulted in limited evidence on the interaction effect of learning orientation. This research aims to provide empirical evidence on both direct and indirect links of learning orientation on firm performance.

Studies that examine functional corporate officers have progressively drawn interest from the corporate governance field. Many previous studies have focused on the chief executive officer (Corgel et al. 2004; Simsek 2007; Finkelstein et al. 2009). However, researchers have recently documented different functional board members such as the
The role and importance of CFOs has grown relative to other corporate officers (Wang 2007; Krantz 2008; Li et al. 2010). CFOs are distinguished from other officers on the basis of their specialised role and knowledge in the financial reporting function (Menz 2011). Yet, there are few studies examining CFOs and their role in firms (Bedard et al. 2014). Much of the research has examined the effectiveness of top officers in performing their monitoring and advising functions by investigating characteristics of legal and financial expertise, acquisition experience and qualifications (Guner et al. 2008; McDonald et al. 2008; Krishnan et al. 2011). Similarly, this research proposes that the characteristics of CFO experience may help in understanding the importance of the CFO to the firm. This study addresses this interest by examining how the presence of financial experience of the CFO influences firm performance. Previous studies have investigated the linkage between director demographic characteristics and firm outcomes (for example, Certo et al. 2006; Kroll et al. 2008). However, there is still inconsistency in the findings of such studies, even though the data has been reliable and accessible (Certo et al. 2006). Focusing on CFOs provides a contribution in the area of how financial experience influences firm performance.

1.7.4 National

Australian governments and a number of its agencies are actively contributing to enhancing financial literacy (Taylor & Wagland 2011). This includes programs of the Australian Securities and Investments Commission (ASIC) and the Financial Literacy Foundation and the Australia and New Zealand Banking Group Limited (ANZ). These programs have been developed as a means to meet the needs of society in managing daily financial responsibilities and thus help to develop a financially literate society. Although, governments and the private sector are proactive in encouraging the need to educate the
general community with these essential skills, uptake has been erratic and slow (Taylor & Wagland 2011).

Outcomes from this research, which will examine the comprehensive relationships between knowledge and capabilities, learning orientation, CFO experience and firm performance will have directly relevant implications for SMEs and policy makers. It is anticipated that the findings will provide SMEs with information that they can use to make improvements in firm learning mechanisms and hence to benefit their firm performance. Policy makers will also be interested in the research outcomes as an input into system, policy and program developments for SMEs. Thus, the present research makes substantial contributions to the government and broader community by providing practical support through this empirical research to improve the level of financial knowledge and capabilities in Australia, particularly on SMEs.

1.8 Significance of the Research

1.8.1 Theoretical

By synthesising theoretical contributions from both the entrepreneurship and finance literature and studying their interaction in a specific context, this research contributes to the fields of entrepreneurship, financial literacy and management. It is intended to advance understanding by enriching and clarifying the financial knowledge and capabilities construct. One aspect of this is the inclusion of financial attitude and financial awareness in the financial resources construct, which allows a deeper understanding of financial knowledge and capabilities. Furthermore, by investigating how financial knowledge and capabilities influences the performance of SMEs, the research endeavours to create a clearer picture of the linkages between the dimensions of financial knowledge and capabilities and how they give rise to firm performance.
Despite wide acceptance of the importance of financial knowledge and capabilities in making informed decisions, this concept at firm level is less understood and researched. This research will help bridge the gap in financial knowledge and capabilities by exploring this concept at the firm level within the context of SMEs. At the same time, the development of firm-level financial resources measures allows for a more robust study in regards to financial knowledge and capabilities in different sectors of the economy, different contextual operating environments and also towards different ‘players’ of the firm.

1.8.2 Applied

An outcome of this research will be a framework that would assist SMEs identify the importance of financial knowledge and capabilities and the advantages that can be utilised to sustain their firm’s performance. With only a small number of SMEs surviving especially in the first years of the firm life-cycle (Wang 2008), such a contribution has practical value to new and emerging SMEs. If SMEs are to survive and be successful, they need to recognise the basis of their financial knowledge and capabilities and understand how the skills influence their business. This research aims to provide new insights for SMEs concerning the value of financial knowledge and capabilities, learning orientation and CFO experience.

Apart from its managerial implications, the empirical evidence may contribute to policy makers’ design of support programs and initiatives in the area of financial knowledge and capabilities, specifically for SMEs. More robust and specific training programs may be initiated by the relevant agencies in order to foster and enhance the level of financial knowledge and capabilities among key players of SMEs. Additionally, this research provides a contextual contribution to research within a particular geographical region.
Hence, this information and knowledge will contribute to entrepreneurial development in Australia.

1.9 Thesis Structure

Chapter 1 introduces the research by providing background identifying a need to examine SME financial knowledge and capabilities, learning orientation and CFO experience in Australia. It develops the context that sets up the research and also refines the problem statement. In addition, this chapter identifies the research objectives and associated research questions that address the problem. Finally, the justification and significance of the research are explained.

Chapter 2 reviews the literature on each of the key variables in this research: financial knowledge and capabilities, learning orientation, CFO experience and firm performance. This chapter also reviews the literature on SMEs in Australia. A discussion of the research variables leads to the development of a financial resources definition and the choice of factors to form financial resources, learning orientation and firm performance measures. A detailed review of the variables in the context of research and practices in Australia is undertaken.

Chapter 3 discusses the development of the theoretical framework of this research. Reviews of the relevant theories provide a solid foundation for developing the hypotheses of the research.

Chapter 4 describes the understanding of research philosophy, methodology and methods. This chapter also presents the research design and approach, outlining a two-
phased survey method. Detailed descriptions of the data collection process, data analysis, validity and reliability and ethical considerations are also presented.

Chapter 5 reports the empirical findings of the research. The chapter presents the results of the survey and its analysis. The findings from factor and regression analysis provide findings for the research questions.

Chapter 6 discusses and interprets the results in detail, in terms of the objectives of the research and research hypotheses. This chapter also relates findings to the literature.

Chapter 7 summarises the findings of the research and draws out the key implications. A number of research limitations and suggestions for future directions are also discussed.
1.10 Summary

In a world where knowledge, rather than more tangible production factors, is the key capital asset in an economy (Visser & Visser-Valfrey 2008), firms are increasingly expected to robustly equip themselves in order to operate in this new environment. The importance of financial knowledge and capabilities, learning orientation and CFO experience are premised on an idea that knowledge can be a principal productive force in this contemporary business environment. Firms in a knowledge-based economy are expected to have high levels of financial knowledge and capabilities, learning orientation and CFO experience so that they can manage and apply their analytical and theoretical knowledge effectively to support performance. Without investment in financial knowledge and capabilities, learning orientation and CFO experience, the consequential constraints can be significant factors that can have a significantly negative impact on performance of the firm. Today’s markets have become increasingly complex and firms are confronted with new and increasingly sophisticated financial market instruments. This may impact the firm by changing how management are structured and operated, and by influencing the firm’s behaviour. In the light of this new business reality, financial knowledge and capabilities, learning orientation and CFO experience may be essential strategic assets of the firm. It is argued that these types of resources may help firms to manage their business affairs in a timely and effective manner, which may lead to better performance.

For SMEs, having an adequate level of financial knowledge and capabilities may be important since they have limited resources, are constantly involved in intense competition and deal with unexpected financial difficulties. In addition, there remains limited empirical research on the impact of learning orientation on SME performance (Michna 2009). Scholars believe that large enterprise management is fundamentally different from SME management and thus, conclusions drawn from those studies cannot
be directly applied to SMEs without empirical confirmation (García-Morales et al. 2007). There is a need for research to examine such links (García-Morales et al. 2007) in the SME context. The shortage of empirical research has prompted this study to investigate the impact of learning orientation on SME performance. Moreover, studies have argued that executives make decisions based upon their idiosyncratic experience (Hambrick & Mason 1984; Menz 2012). Yet empirical evidence regarding the relationship between CFO experience and firm performance is sparse. Therefore, it is important to examine the CFO experience that can help firms to build more effective and sustainable platforms for growth in emerging markets. In sum, this research will be original because it will investigate the links between financial knowledge and capabilities, learning orientation, CFO experience and SME firm performance.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The key concepts of the research are each discussed in depth, covering the definition, background and literature relevant to the main variables and the scope of the research. The present research uses the financial literacy literature to inform our key financial resources and capabilities construct at an organisational level. The chapter is divided into the following sections. Section 2.2 discusses financial literacy and its dimensions. Section 2.3 explains learning orientation. Section 2.4 considers Chief Financial Officers’ (CFOs) experience and Section 2.5 firm performance. The focus on Chief Financial Officers as the unit of analysis on is explained in Section 2.6. Section 2.7 considers the context of SMEs. Finally, Section 2.8 summarises the chapter.

2.2 Financial Literacy

2.2.1 Overview

Financial literacy has received growing attention in the developed world and, recently, in emerging markets as a critical determinant of individual well-being (West 2012). The literature concerning financial literacy can be categorised into three areas. The first seeks to measure the level of financial literacy in different demographic areas (Lusardi & Mitchell 2007; Huston 2010; Jappelli 2010; Almenberg & Widmark 2011). The second area investigates the effects of financial literacy on financial decisions (Almenberg & Widmark 2011; Carter 1973; Johnson & Sherraden 2007; Lusardi & Mitchell 2007; van Rooij et al. 2007). The third area studies the effects of financial education. A central
debate in this last domain is whether financial illiteracy can be overcome (Fox et al. 2005; Lyons et al. 2006; Oehler & Werner 2008; Willis 2009).

Much of the interests shown in financial literacy stems from a concern about individuals but these studies are potentially also relevant for organisations. Scholars have examined financial literacy among various groups, including high school students, college students and young adults (examples are Lusardi et al. 2010; Mandell 2008). These studies focused on personal finances such as credit and debit card usage, savings and retirement planning, mortgages, credit score management and real estate acquisition. The evidence suggests that lack of financial literacy is not only widespread but is severe among those who are characterised by low levels of education, income, saving and are frequently younger, female, unemployed and mostly single (Lusardi 2011; Worthington 2005). Lack of financial literacy is associated with poor financial decision-making, particularly regarding investment choices (Lusardi & Mitchell 2007b), planning (Lusardi & Mitchell 2007a) and borrowing decisions (Lusardi & Tufano 2008; Stango & Zinman 2009). This has potential consequences not only for individuals but also for the economy as a whole (Kurihara 2013).

Several studies have examined personal financial literacy in countries other than Australia. For instance, Monticone (2010) investigated the determinants of financial literacy using examples of Italian households on income and wealth. The findings show that financial well-being is varied substantially by gender, marital status, education, age and occupational status. Van Rooij et al. (2011a) examined the relationship between financial knowledge and retirement planning in the Netherlands. They found a strong and positive relationship between financial knowledge and retirement planning; those who are more financially knowledgeable are more likely to plan for retirement. Moreover, Chen and Volpe (2005) analysed financial literacy, education and service in the
workplace from 212 human resources and benefit administrators in United States (US) companies who deal with employees on many personal finance-related issues on a daily basis. One of the main findings of this study was that personal financial planning topics are considered important for employees to know as they had inadequate knowledge about these topics. In the United Kingdom (UK), Schagen and Lines (1996) examined a financial literacy survey of four groups: young people aged 16-21 in work or training, students in higher education not living in the parental home, single parents on benefits and families living in subsidised housing. While the results were generally more positive, of the sub-groups, students were the least confident about financial decisions and single parents were least committed to savings. In a recent study, Cameron et al. (2013) surveyed high school students in schools in and around Hamilton, an inland city in the central North Island of New Zealand. Their findings suggest that young populations are poorly prepared for making potentially life-changing financial decisions.

This research uses the financial literacy literature only for informing the financial knowledge and capabilities concept. Despite its potential, the apparent importance of financial literacy and a range of measures for individual well-being, none of the studies to date have examined how this critical skill is influencing the performance of the firm, particularly in SMEs. This is surprising as research on small firms has consistently displayed deficient levels of financial skills in the firm as a major impediment to business success (Andoh & Nunoo 2011; Chen & Volpe 2005; Gooderham et al. 2004; Halabi et al. 2010; Marriott & Marriott 2000; McMahon 2003; Moy & Luk 2003) suggesting a greater need for careful attention to financial knowledge and capabilities. Research demonstrated that there is a significant gap between what firms think they know and what they need to know to operate a successful business, and the actual business and skills they possess (Charters et al. 2008). McMahon and Holmes (1991, p. 19 citing Potts 1977, p. 2) stated, “The clearest and most startling distinctions between successful and
discontinued small businesses lie in their approach to the uses which can be made of accounting information”. As such, there is a need for firms to be financially resourceful in order to perform strategically and financially. This research will play a leading role in remedying this situation, helping to put issues related to SMEs into the financial literacy spotlight.

According to Bay et al. (2014), the risks of investing in new financial products were understood neither by the professionals nor by the firms analysed. It can be posited then that the importance of financial literacy skill does not reside only among the individuals and general population; firms are also explicitly expected to possess such skill. It is increasingly important for small businesses to leverage their collective intellect for business development achievement (Frey 2001). As the SMEs sector works to regain economic security, the importance of financial knowledge and capabilities may become even more pronounced. Over the past several decades, the financial world has become increasingly sophisticated and complex. Not only must SMEs take bigger responsibility for their well-being but they must also navigate economic volatility, manage risk and predict future market needs. Increasing the financial resources may have a direct effect on the financial and strategic performance of the firm. Scholars demonstrated a positive link between financial literacy and wealth (Lusardi & Mitchell 2006). Coates et al. (2007) found that improvements in audit committees’ financial literacy proved beneficial to firms in terms of superior stock market returns.

Lackluster levels of financial literacy, along with inappropriate behaviours surrounding money management, were revealed during the most recent economic downturn, bringing the development of financial literacy into the macroeconomic spotlight (Klapper et al. 2013). Clearly, there are substantial negative costs to firms as well to the general economy when firms lack financial resources. For example, when firms are misinformed
or make financial decisions that result in loan defaults, these costs increase interest rates for other consumers and can trigger losses for private investors as well as for the government (Perry & Morris 2005). For these reasons, it can be claimed that financial resources are an extremely important issue not only for SMEs performance but also the country’s economy as a whole.

2.2.2 Definitions

The term ‘financial literacy’ combines the two words which separately mean a myriad of issues but which can misplace their relevance when used together.

Beginning with the basics, the *Collins Dictionary and Thesaurus* (HarperCollins 2005) states that the word ‘financial’ also relates to the words ‘business’, ‘commercial’, ‘economic’, ‘fiscal’, ‘monetary’, and ‘pecuniary’, each of which has its own meaning.

Literacy is defined in the *Oxford Dictionary of English* (Stevenson 2010) as ‘the ability to read and write’. Nevertheless, scholars do not associate literacy with reading and writing alone but often consider that literacy represents a constellation of skills, including basic arithmetic calculations and speech comprehension skills (Kirsch 2001). Another concept of literacy is found in the definition used by the Organisation for Economic Cooperation and Development’s Programme for the International Assessment of Adult Competencies (Organisation for Economic Cooperation and Development 2009). That report defined literacy as the ability to understand and use various forms of print and digital text in day-to-day activities. In short, the *Collins Dictionary and Thesaurus* defines literacy as one’s ‘ability to use language effectively’ (HarperCollins 2005). The idea of literacy has been articulated to the study of particular skills sets, for example multimedia literacy (Hofsteter 1995), statistical literacy (Callingham & Watson 2005), health literacy (Baker 2006) and computer literacy (Wecker et al. 2007).
There is no universally accepted definition of financial literacy (Organisation for Economic Cooperation and Development 2005). As conceptualised in the literature, financial literacy means different things in different contexts. The term financial literacy varies according to one’s skills, needs and experiences (Worthington 2006).

According to Kim (2001) financial literacy is a basic knowledge that people need in order to survive in a modern society. In a similar vein, Bowen (2002) defines financial knowledge as understanding key financial terms and concepts needed to function daily in society. People are considered financially literate “if they are competent and can demonstrate they have used knowledge they have learned” (Moore 2003, p. 29). This knowledge includes an understanding of different financial choices and making the right financial decisions for better future planning (Stone 2004). Others focus “quite narrowly on basic money management skills – budgets, savings, investing, insuring” (Hogarth 2002 p. 15). For instance, Lusardi and Mitchell (2007c, p. 36) postulated that “financial literacy was about people being informed in all aspects of their savings, investment and decumulation which measured in the context of everyday financial choices”. In another study, Stone et al. (2008, p. 12) defined financial literacy as a “basic financial knowledge about how to successfully manage debt”.

Servon and Kaestner (2008) are among several scholars who varied the knowledge-based definition. The authors defined financial literacy as a person’s ability to understand and make use of financial concepts. Similarly, Roy Morgan Research (2003, p.1) asserted financial literacy means “enabling people to make informed and confident decisions regarding all aspects of their budgeting, spending and saving and their use of financial products and services, from everyday banking through to borrowing, investing and planning for the future”. The definitions used by Vitt et al. (2000) and Rahmandoust et
al. (2011) were essentially the same, in that they included the ability to read, analyse, manage and communicate about the various financial conditions and to state an intended outcome on well-being within the definition. This definition was also cited by Cude et al. (2006). Many conceptual definitions of financial literacy include a decision-making skill making it useful for the business context as well. Noctor et al. (1992, p. 4) in work undertaken on behalf of National Westminster Bank in the United Kingdom defined financial literacy as “the ability to make informed judgments and to make effective decisions regarding the use and management of money.” This definition has been later utilised in several studies with some minor changes including Schagen and Lines (1996), Beal and Delpachitra (2003) and Australia and New Zealand Banking Group Limited (2008). Another definition of financial literacy is found in Piprek et al. (2004, p. 4): “the ability to make informed decisions and take appropriate actions on matters affecting one’s financial wealth and well-being”. Also, Fox et al. (2005, p. 195) defined financial literacy as “crucial to effective consumer decision-making”. Mandell (2007, p. 163-164) summarised the term best, stating financial literacy as an individual “ability to evaluate the new and complex financial instruments and make informed judgments in both choice of instruments and extent of use that would be in their own best long-run interests”. Rather than focusing solely on the knowledge or ability to apply financial concepts, Hung, et al. (2009) found that most definitions of financial literacy included both dimensions of knowledge and ability. The definition used by the Jump$tart Coalition (2007) also included both dimensions of knowledge and ability. The study stated financial literacy is the ability to use knowledge and skills to manage financial resources effectively for lifetime well-being. Recently, Kurihara (2013) has referred to financial literacy as the ability and knowledge that allows individuals to make rational, effective decisions about their financial and economic resources. Remund (2010) summarised various conceptual definitions of financial literacy and identified five dimensions: (1) knowledge of financial concepts (2) ability to communicate about financial concepts (3)
aptitude in managing personal finances (4) skill in making appropriate financial decisions, and (5) confidence in planning effectively for future financial needs.

Alternatively, Schagen and Lines (1996) argued that the financially literate should not only have the abilities to understand key concepts in money management, a working knowledge of financial institutions, systems and services and a range of analytical and synthetic skills, but also possess a facilitating attitude to the effective and responsible management of financial affairs. A recent Australia and New Zealand Banking Group Limited survey (2011) highlighted the fact that financial literacy is a combination of a person’s skills, knowledge, attitudes and ultimately their behaviours in relation to money. Mason and Wilson (2000) added that for some, a financially literate would have an ability to obtain, understand and evaluate the relevant information necessary to make decisions with an awareness of the likely consequences.

There are definitions of financial literacy specifically addressed at managers and business people. For example, Gouws and Shuttleworth (2009, p. 145) referred to financial literacy as “the process of obtaining financial knowledge in order to understand and use financial information for organisational decision-making related to planning, control and profit maximization”. Brown et al. (2006, p. 179) support this definition by stating that financial literacy will “help the business people to function efficiently at work because they are able to evaluate the information needed to make decisions that have financial ramifications or consequences”. Gerda Pirprek (2009, p. 5) in a report to the United States Agency for International Development (USAID) defined financial literacy as follows:

A financially literate SME owner/manager knows what are the most suitable financing and financial management options for his/her business at the various growth stages of the business; s/he knows where to obtain the most suitable
products and services; and s/he interacts with confidence with the suppliers of these products and services. S/he is familiar with the legal and regulatory framework and his/her rights and recourse.

Building on the above context definitions, the present research has extended a more detailed description of financial resources by incorporating financial attitude and the financial awareness factor. In this research, financial resources refers to the understanding of how firms manage and strategise financial knowledge, which has a significant effect on decision-makers’ attitudes, awareness, and behaviour regarding sound decision-making and ultimately achieving organisational wellbeing. Broadly, this definition makes it clear that a financial resource is more than just knowledge. It stresses the importance of making informed decisions by applying knowledge and a ‘right’ attitude and awareness of real business processes, and thereby improved firm outcomes. This definition certainly attaches a great deal of importance to attitude and awareness in influencing financial resources skills.

One of the barriers to developing a standardised approach to financial literacy is the use of other terms by researchers. It is unclear whether the terms are used as different concepts or synonyms. Many terms used to describe financial literacy include financial knowledge (Howlett et al. 2008), financial capability (Holzmann 2010; Taylor & Wagland 2011) and financial education (Norman 2010). These terms have been variably refined from a general definition including an understanding of basic financial concepts to a specific definition such as an ability to manage personal finances.

Financial knowledge has been used as the iteration of the financial literacy in previous studies; for example, Kim (2001), Servon and Kaestner (2008) and Courchane and Zorn (2005). Although they are human capital, the latter consists of both knowledge and
ability. The former is an integral dimension of, but not equivalent to, financial literacy (Hung et al. 2009; Huston 2010). Whereas, financial literacy has an additional application dimension in which individuals should have the ability and confidence to use their financial knowledge to make informed decisions (Huston 2010). To the extent that financial literacy involves application, rather than just knowledge, this skill likely depends on a person's ability to apply the knowledge appropriately. Indeed, these two terms are conceptually different. Therefore, using financial knowledge and financial literacy interchangeably may indicate potential problems.

Another term that has entered the literature is financial education. In Norman (2010), the term financial education and financial literacy are used synonymously. The author referred to financial education as “knowledge or an understanding on the importance of money and the use of money, it answers the question, why spend on this as opposed to that?” (p.200) to describe financial literacy. But, Huston (2010), in “Measuring Financial Literacy” pointed out that financial literacy is different to financial education. She noted that financial education is an input to enhance an individual’s human capital, especially financial knowledge and financial literacy. The Organisation for Economic Cooperation and Development (2005, p. 26) comprehensively defined financial education as follows: The process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being.

Similarly, President’s Advisory Council on Financial Literacy (2008) referred to financial education as the process by which people improve their understanding of financial products, services and concepts, so they are empowered to make informed
choices, avoid pitfalls, know where to go for help and take other actions to improve their present and long-term financial well-being. Hung et al. (2009) utilised the President’s Advisory Council on Financial Literacy (2008) definition as the basis for their review of financial literacy skill. These definitions suggest that, by being taught how to acquire and foster this literacy, a financially literate individual can become a financially literate consumer. Considered closely, these definitions speak more to the outcomes of the skills. It is presumed that financial education can be viewed as a tool through which financial knowledge and skills are gained for financial well-being. Financial education does not explicitly define financial literacy; in fact it should be considered an effective means to promoting financial literacy.

The most intriguing of the alternative names offered for the term “financial literacy” includes financial capability, often used in Europe (Kempson & Atkinson 2006). In Australia and New Zealand, the term financial literacy has a broad definition and generally encompasses the concept of financial capability (Taylor & Wagland 2011). These terms are used synonymously in several studies; for example, Johnson and Sherraden (2007), Stone et al. (2008) and Holzmann (2010). Taylor and Wagland (2011) utilised a similar financial literacy definition by Schagen and Lines (1996) and interchangeably used that to describe financial capability in reviewing the government policy and initiatives on financial literacy. Kempson (2008, p. 3) was another to suggest that the term financial capability includes the concept of financial literacy. The author provided an eloquent and effective definition of financial capability: “A financially capable person is one who has the knowledge, skills and confidence to be aware of financial opportunities, to know where to go for help, to make informed choices, and to take effective action to improve his or her financial well-being while an enabling environment for financial capability building would promote the acquisition of those skills”. Johnson and Sherraden (2007, p. 122) defined financial capability as follows:
“Participation in economic life should maximize life chances and enable people to lead fulfilling lives; this requires knowledge and competences, ability to act on that knowledge, and opportunity to act”.

Interestingly, other studies have also shown strong associations between perceived and actual financial literacy. For example, van Rooij et al. (2007) showed regressions predicting stock-market participation with actual and perceived financial literacy. Lusardi and Mitchell (2007b) demonstrated parallel regressions including both perceived and actual financial literacy, with both measures predicting retirement planning.

Based on Remund’s (2010) review, the operational definitions of financial literacy most commonly used at the individual level fall within four content areas, namely budgeting, saving, borrowing and investing. Other dimensions that also measure financial literacy include money basics (time value of money, purchasing power, accounting concepts) and protection resources (through insurance, estate and tax planning, other risk management techniques) (Huston 2010). Remund (2010) on the other hand, argued that managing risk is an essential part of borrowing and investing, and estate planning and asset transfers can, to some degree, be incorporated with saving and investing practices. As reported in Huston (2010), most of the measures in prior studies comprised of basic, borrowing, saving or investment. Only a small number of the measures incorporated all of the content areas. Nevertheless, those categories of operational definition identified thus far serve an effective purpose in order to provide a common starting point.

In sum, there is a large body of research on financial literacy and the above review shows that this concept can most likely be used in research on organisational capabilities and performance. Here the financial literacy concepts are used to inform the conceptualisation of financial knowledge and capabilities in the context of SMEs. The
measures used are positioned to address the impact of financial resources on firm performance together with other (more general) factors that are likely to play a role.

2.2.3 Financial literacy and small and medium enterprises (SMEs)

The Australian Government recognises the importance of a high degree of financial literacy and continues to provide support and encouragement through a range of initiatives. A significant number of financial literacy programs also have been launched in recent years by a broad range of financial, consumer and educational institutions. However, these studies have given rather greater attention to the importance of the individual’s well-being than firm well-being.

The strength of the country’s economy has a significant link with the health of SMEs sector. Billions of dollars are spent by the government encouraging them to help themselves to develop. While the contributions of SMEs to economic growth are greatly acknowledged, SMEs face many obstacles that limit their sustainability and long-term development. Despite the increased number of SMEs in Australia, the rate of business failure is alarming. Research on small businesses has shown that nearly one-third of all start-ups failed in the first year of their operation (Wang 2008; Mason 2009). There are many reasons to better understand firm success versus failure, although there are disagreements on the actual rate of failure (Mason 2009). Studies have revealed that the root cause of small business failures are inexperience in the field of business, particularly lack of technical knowledge plus inadequate managerial skills, inefficient financial management and poor accounts-keeping (Tushabonwe-Kazooba 2006; Mason 2009) as well as a lack of basic financial literacy (Halabi et al. 2010; Andoh & Nunoo 2011).

Undoubtedly, SMEs must possess appropriate knowledge and abilities to be successful (Okpara & Wynn 2007). Firms used to be structured by management and managerial
understanding (Grey 1999), but today, business development is controlled by financiers and financial knowledge and skill (Akande 2010; Davis 2009). Recent evidence has shown that financial development can change the allocation of scarcity and income (Claessens & Perotti 2007; Demirguc-Kunt & Levine 2009), which is critical for a firm’s productivity and performance.

2.2.4 Advantages of financial literacy

SME’s are like vulnerable groups in the business landscape given their smaller scale of operations. The complexity of the market environment is much greater these days, so it is important to ensure that firms understand the business and financial side of their operations. What seems to be needed now is to give SMEs the tools to ensure their businesses are sustainable in every sense. Recently, there has been an increased focus on financial skill as a form of control strategy for firm success (Alvehus & Spicer 2012; Faulconbridge & Muzio 2009).

Financial knowledge and capabilities, especially for economically vulnerable enterprises, is important assets of a resource allocation. It is important to have an appropriate source of assets, particularly financial knowledge and capabilities, to ensure their financial affairs are appropriately and efficiently managed. Such skill sources can be an important determinant of sustainable firm performance (Omerzel & Antoncic 2008). Furthermore, financial knowledge and capabilities can be assets that firms can use to distinguish themselves from their rivals and the means by which poorly organised firms can become well organised. Firms with high levels of financial resources may be less uncertain regarding their efficiency and they will be able to learn and notice changes in the market faster.
As firms deal with fluctuations in the market environment, having an understanding of the importance of financial knowledge and capabilities has taken on increased significance. These skills have been found to be important for SMEs to assist firms to make better decisions (Argilés & Slof 2003). In today’s complex financial marketplace, firms often must make many financial decisions, from the most basic cash-flow management to complex investment choices. It would not be surprising if a large number of SMEs make countless bad financial decisions, fail to save for a rainy day and accumulate unmanageable debt. Many of those poor decisions are caused by a lack of financial literacy (Lusardi 2012). Knowing how to make sound financial decisions is a core skill in today’s world (Lusardi 2012) regardless of size. It may affect opportunities that firms can pursue their sense of security and the overall performance. SMEs may improve their firm performance and increase their competitiveness with appropriate financial resources. Financial knowledge and capabilities are basically resources that can provide economic information to make knowledgeable decisions and direction for better performance. With financial resources, firms may prepare to face unexpected and irregular financial circumstances.

People who are more financially literate are more likely to function efficiently (Brown et al. 2006) in their day-to-day financial management (Hilgert et al. 2003). The importance of financial knowledge and capabilities in impacting on economic behaviour has been well-documented. Lusardi and Mitchell (2011b) showed that those with higher numeracy are much more likely to own stocks. Christelis et al. (2010) showed that in many European countries, higher numeracy among the older population is associated with owning stocks directly or indirectly via mutual funds and with investment in general, and Almenberg and Widmark (2011) found that numeracy is strongly linked to participation in both the stock and the housing market in Sweden. Recently, Bönte and Filiia (2012) found a positive relationship between financial skill and social interaction in investment.
Guiso and Jappelli (2008) also found that financial skill is strongly associated with the degree of portfolio diversification. In addition, financial literacy is likely to be desirable to improve access to credit for mortgages (Courgheane et al. 2008), increase assets (van Rooij et al. 2012), benefit from direct investment in stocks (Cardak & Wilkins 2009), deter financial exclusion (Jones 2008), informed saving and investment decisions, better debt management and planning, high participation in the stock market, and greater wealth accumulation (Lusardi & Mitchell 2014). Indeed, a firm that has strong financial resources and capabilities may help it to navigate this complex market environment and make appropriate economic decisions.

Based on past studies, failure rates are significantly higher for SMEs that lack financial literacy skills (Andoh & Nunoo 2011; Halabi et al. 2010). Firms that fail to understand financial concepts may engage in behaviours that have both immediate and long-term negative effects on their ability to improve firm performance. The low level of financial resources in SMEs may leave many ill-prepared for wolves at their door.

Failure to plan for strategic undertakings, lack of participation in the stock market, and poor borrowing behaviour can all be linked to ignorance of basic financial concepts (Lusardi 2008). Most importantly, Lusardi and Mitchell (2011b) showed that those who are financially illiterate are less likely to accumulate wealth. Using a rich data set of sub-prime mortgage borrowers, Gerardi et al. (2010) found that lower financial literacy is associated with greater chance of delinquency and default in the subprime housing market. Those with low financial skills are less likely to access financial markets and invest in stocks (van Rooij et al. 2011). Gathergood (2012) examined the relationship self-control, financial literacy and over-indebtedness using survey data from a sample of UK households and found that poor financial literacy is associated with over-
indebtedness. Indeed, the ability to attain benefits from investment opportunities and participation in financial markets depends on economic skill (Jappelli 2010; Prete 2013).

The growing complexity of financial markets widens the choices for firms to save, invest, and take or avoid risks, which requires financial resources to work toward a sound financial position. They have to do more than merely make a loan to buy an asset and save for contingencies. Financial knowledge and capabilities does impact financial decision-making. Lack of financial knowledge and capabilities would prevent a firm from making informed decisions that are germane to the firm's survival. They may not have the resources necessary to make the decisions in terms of how to save and invest wisely, build wealth and avoid excessive debt. This could have severe impacts on the firm. Their performance may even drop and their business may decline.

By investigating how financial resources are configured in SMEs, this research demonstrates that financial resources are not primarily about possessing the skills to interpret accounting and financial information, but about what constitutes financial resources when different settings are considered. The efficiency of financial resources is pre-conditioned by the firm’s calculative understanding, which enables it to make use of accounts as tools for reaching a given end. This research is concerned with investigating the importance of financial resources as a means to enhance a firm's performance. Studying financial knowledge and capabilities at the firm level serves as a challenge to what previous studies have done; taking financial literacy research beyond the individual borders of investigation and investigating it in the context of firm performance.

Now more than ever, numeracy and financial literacy are lifetime skills (Lusardi 2012) that firms need to have to be able to operate in today’s complex business environment. Financial knowledge and capabilities can be viewed as strategic resources of the firm in
much the same way as a firm’s tangible resources such as capital equipment and real estate. High levels of financial resources would create additional value that can be leveraged into strong, competitive performance. Also, it enables firms to respond to new market opportunities and can lead to accumulation of wealth.

Given the importance of SMEs to the Australian economy and the exposure to risks owing to the uncertainty of the financial market, there is indeed a need to conduct empirical research to investigate the level of financial resources of SMEs on performance. Financial resources can play a vital role in the creation and sustainability of a vibrant SME sector, particularly during a time of limited resources. A financially resourceful firm can craft informed decisions and strategies that will help the firm not only to stay afloat in tough economic times but also to prosper. Moreover, improving financial resources may not only help firms to face unexpected financial shocks and contribute to stability, but also to strengthen the market and macroeconomic stability.

2.2.5 Conceptualising financial knowledge and capabilities in the context of SMEs

Defining and appropriately measuring financial knowledge and capabilities are essential to understand its impact as well as limitations to strategic financial choice (Huston 2010). To assess current levels of financial resources and explore means to improve it, constructs are needed to measure firm’s ability to improve their performance. In this research, education, financial knowledge, financial attitude and financial awareness are considered in an overarching conceptualisation of financial resources. Education represents a particularly basic form of financial resources. Financial knowledge and financial awareness are reflected in perceived knowledge that influences financial resources. Financial attitude is indicated in the perceived approach that influences such resources. These constructs drawn from literature produce a holistic picture of what financial resources are, conceptually.
The present research aims to investigate whether the financial resources are deemed to be beneficial to a firm’s performance. It is predicted that a firm with higher financial resources will have a greater influence on its performance. Having a high level of financial resources would be a strong basis for strategic decisions and to the survival of any firm. If they could tap only a portion of this incalculable knowledge during the decision-making process, better strategies could develop and ultimately result in better performance. The implied expectation is that financial resources can play a crucial factor in performance.

The research describes the four constructs of financial resources along with proposed relationships to firm performance. These are education, financial knowledge, financial attitude towards risk-taking and financial awareness of financial reports. A unique set of capabilities or a knowledge base is derived mostly from education attainment, which can be transferred to the firm (Bates 1990; Honig 2001). Hastings et al. (2013) postulated that financial literacy is highly correlated with educational attainment, suggesting that traditional measures of education serve as proxies for financial literacy. Education can be described as a form of learning in which skill and knowledge is acquired. Generally, higher education levels have higher levels of financial literacy (Lusardi & Mitchell 2011). According to upper echelons theory, an education level is associated with open-mindedness, tolerance for ambiguity, capacity for information processing and ability to evaluate alternatives (Hambrick & Mason 1984). Therefore, the present research theorises that financial resources of a firm can be measured by the education attainment of the CFO. The education level of top executives is a general reflection of their intellectual competence (Waiderdsak & Suehiro 2004). In this view, firms that have better educated CFOs were expected to have better financial resources than those which have less well-educated CFOs.
Much of the empirical literature reports that there is a strong correlation between financial literacy and qualification attainments (Hung et al. 2009; Lusardi & Mitchell 2011). For instance, Mandell (2008b) showed that overall academic ability of students is strongly positively related to financial literacy. Using a sample of Italian households, Monticone’s (2010) findings indicated that the presence of a household member more educated than the household head predicted a greater financial literacy. Furthermore, Andoh and Nunoo (2011) found that there is a positive correlation between completion of technical education and financial skills among managers. Also in accordance with this notion, Haniffa and Cooke (2002) found positive relationships between general business and accounting education of board directors and disclosure of information that demonstrates accountability and credibility of the top management team. Additionally, Chen and Volpe (2005) showed that the education, continuing training and work experience in personal finance areas make employees knowledgeable about personal finance in the corporate world. The Moody’s Foundation survey (2012) showed that having an advanced degree had a significant positive effect on respondents' financial literacy as measured by the survey questions, but did not seem to have a significant relationship with their self-reported knowledge of financial practices.

Education attainment represents a close alignment to basic financial resources. The Australian Corporate Governance Principles and Recommendations (Australian Securities Exchange Corporate Governance Council 2007) propose the minimum qualifications that the CFO role must hold in a firm. The Regulations require them to be financially educated in that they hold either finance or accounting degree. A firm with a well-educated CFO may have high financial resources. Apparently, CFO education potentially impacts a firm’s financial resources. First, education could potentially contribute to the firm’s financial resources to understand technical as well as abstract
ideas. Second, the education level could be an indication of the firm’s intellect and ability to persist with challenging financial activities. Having a well-educated CFO may develop firm’s financial resources, which reflects their ability to communicate complex financial data and to develop effective solutions to business issues (Randall 1999). Firms with well-educated CFOs are more likely to own stocks and less prone to use high-cost borrowing (Campbell 2006; Lusardi & de Bassa Scheresberg 2013). They also tend to “be a strategic thinker” (Doody 2000, p. 52) and able to “respond confidently to changing situations” (Ballein 1997, p. 87), facilitating the financial health and vitality of their firm. The above discussions suggest that education level is likely to constitute a proxy of financial resources that determines firm performance. Theoretically, a higher education level is perceived to be linked to better financial resources, positively affecting firm performance. Boyatzis (2004) posited that intellectual competence is essential in the learning process to generate new skills to achieve competitive advantages and superior performance.

The literature on top management teams examines why top officers’ demographic characteristics of the management and characteristics of the firm are important in determining success (Hambrick & Mason 1984; Masakure et al. 2008). The present research continues that line of study by investigating the relationship between CFO education and firm performance. A well-educated CFO has greater cognitive complexity and is less conservative in processing information before making decisions (Hitt & Tyler 1991). They are inclined to think about the implications of what they are putting into place and what limits they may impose down the road (Mermigas 2001) to ensure the stability of their firm's performance. In a study of CFO’s, Tully (1995, p. 277) notes “individuals like these… shape strategy, earn millions – and can be worth billions to a company and its shareholders”.

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From the upper echelons’ perspective, education level has a significant bearing on firm outcomes. The result, however, provides an incomplete picture. For example, Omerzel and Antoncic (2008) put great emphasis on the education level of the manager, skills and knowledge about functional areas as important elements for firm growth and profitability. Research by Lussier and Pfeifer (2001) found a positive relationship between the level of education of managers and their firm’s performances. The importance of education is further accentuated by Bowen et al. (2009). They posited that relevant education does matter to business success. In a study of women directors, Smith et al. (2006) found that the positive effect of women on a firm's performance depends on their qualifications. These results can be generalised for all managers. Sinha (1996) analysed the educational background of the entrepreneur and revealed that most of the unsuccessful entrepreneurs did not have any technical background. Also, Masakure et al. (2008) found that education is only significant for the more profitable firms in the five highest performance deciles. Moreover, Fajnzylber et al. (2006) demonstrated a significantly positive connection between education and firm growth in Mexico. Conversely, this effect disappeared when they changed their sample to a smaller dataset and added the age of the firm and the capital stock as controlling variables. In addition, Jalbert et al. (2002) utilised a larger sample of firms from the Forbes 800 list from 1987-1996, and found puzzling evidence of a relationship between Chief Executive Officer (CEO) education and firm performance. They found that the quality of a CEO’s graduate school is weakly negatively related to return on assets, but positively related to Tobin’s Q. Using a small sample of approximately 500 firms from the year 2002, Gottesman and Morey (2006) found that degree quality (a law degree or Master in Business Administration) is not systematically related to firm performance.

A firm that has larger human capital in terms of education is better placed to adapt its business to constantly changing market environments (King & McGrath 1998). This
seems to play a crucial role in the sustainability of firm performance (Sinha 1996; King & McGrath 2002). Recently, Cole et al. (2014) examined whether exposure to personal finance and math courses has a causal impact on financial outcomes. Their findings show that increasing education attainment could dramatically lead to greater financial market participation, investment income and better credit management, including fewer foreclosures. By the same token, Yermack’s study (2006) found that share price reactions are sensitive, among other factors, to directors’ professional qualifications, particularly in the area of accounting and finance. In addition, Charney and Libecap (2000) revealed that entrepreneurship education increases the development of new products as well sales growth rates of emerging firms. It is clear that the education is related to a better firm performance.

A growing body of literature provides general insight on financial literacy levels and the factors that affect their financial knowledge and behaviour (Braunstein & Welch 2002; Hilgert et al. 2003; Bell & Lerman 2005; Fox et al, 2005; Lyons et al. 2006; Hastings et al. 2010; Australia and New Zealand Banking Group Limited 2011). Presumably, financial knowledge refers to the possession of understanding and competence in relation to financial matters in order to manage financial resources effectively. This suggests that having good levels of knowledge about financial matters generally and numeracy are important, particularly when it comes to choosing financial products, keeping track of finances and keeping informed (Australia and New Zealand Banking Group Limited 2011). In a series of studies, Hogarth and Hilgert (2002) and Hilgert et al. (2003) found that those who are financially knowledgeable are more likely to engage in responsible financial practices. Providing firms with better financial knowledge may help them achieve more appropriate levels of debt, spending, and saving. Perry and Morris (2005) supported the premise that the propensity to save, budget and control spending depends
partly on the level of perceived control over outcomes as well as financial knowledge and financial resources.

Ditillo (2004, p. 401) stated, “Knowledge and the capability to create and utilise such knowledge are the most important source of competitive advantage” in a firm. Nonetheless, many firms are often unaware of basic economics and finance, which may lead them to make ineffective decisions and often irreversible mistakes (Lusardi & Mitchell, 2011). Thus, it is imperative that firms are equipped with the financial knowledge to overcome financial uncertainties and avoid bankruptcy.

Knowledge represents one of the sources of the basic foundation for firm performance (Nonaka & Takeuchi 1995; Novak & Bojnec 2005). The need for leveraging the value of knowledge is increasing (Wong & Aspinwall 2005) and consequently firms are becoming more knowledge intensive; they are hiring “minds” more than “hands” (Bozbura 2007). In a similar vein, financial knowledge aids firms in all aspects of their decision-making (Gilmore et al. 2004), which is crucial for firm performance (Davidson et al. 2004; Omerzel & Antoncic 2008). However, little is known about the current state of financial knowledge in SMEs. One major purpose of this research is to fill this gap by investigating SMEs’ financial knowledge and exploring how such knowledge influences their performance.

Research has reported a positive relationship between financial knowledge and firm performance. For instance, Widdowson and Hailwood (2007) found that those who have strong financial knowledge are more likely to succeed and invest in complex assets. Later, Monticone (2010) indicated that financial wealth had a positive and precisely estimated effect on financial knowledge. The empirical result of Davidson et al. (2004) supported this finding by showing that the financial knowledge exerts a significant
influence on performance. In a similar vein, Omerzel and Antoncic (2008) believed that knowledge is one of the most important driving forces for a firm’s growth and profitability.

Financial knowledge has become an important tool for creating new opportunities with strategic action, which provides economic decision-making (Chen & Volpe 1998; Lusardi 2012) and improves financial planning in the long term (van Rooij et al. 2011a; Lusardi & Mitchell 2014). Furthermore, it helps firms deal with uncertain situations more satisfactorily (Gilmore et al. 2004) than those, which lack financial knowledge. Vanessa and Marlene (2005) claimed that a lack of financial knowledge could have serious consequences such as a higher incidence of bankruptcies, credit problems, poor savings rates and impulse buying. Financial knowledge is likely to be an important underpinning for financial resources.

Other constructs such as financial attitudes towards risk-taking may also be worth considering. A firm cannot only gather sufficient knowledge to predict the chance of success in the market, it can also have calculated whether it can handle such a situation financially (Gilmore et al. 2004). Earlier literature shows that financial attitude has a positive association with most behavioural indicators of financial literacy (Australia and New Zealand Banking Group Limited 2011; Oseifuah 2012). Those who are financially literate should not only have the ability to understand key financial concepts but also possess a facilitating attitude to the effective and responsible management of financial affairs (Worthington 2006). The present research examines financial attitude towards risk-taking as an explicit part of a firm’s financial resources. Ideally, financial attitude towards risk-taking can be defined as the extent to which firms are willing to pursue risky financial resource opportunities in ventures with unknown outcomes. It refers to the extent to which a firm is willing to make large and risky resource commitments (Covin &
Increasing financial resources within the firm may empower it to attain relevant knowledge and attitudes in dealing with financial risks and challenges.

There is no precise definition of attitude. The *Oxford English Dictionary* defines it as “a settled way of thinking or feeling about something”. It also can be defined as a valuation of an object, whether that object is good or bad (Wiklund et al. 2003). Eagly and Chaiken (1993, p. 1) defined an attitude as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor”. Conceptually, financial attitude appears to function as manifestations of more specific underlying constructs that are tight in financial affairs. It includes issues on investing, saving, debt and budgeting. These attitudes may allow firms to access and purchase appropriate financial products and services that can be beneficial for their performance.

Risk is a complex concept and difficult to define in a single sentence. It has been interpreted in different ways, depending on the context in which it is applied. Generally, risk can be defined as ‘the possibility of physical or social or financial harm/detriment/loss due to a hazard” (Rohrmann 2002, p. 2). Risk entails two essential components: exposure to a situation and uncertainty of outcomes (Holton 2004). Deloach (2000) described risk from a business point of view as the level of exposure to uncertainties that the firm must understand and effectively manage as it executes its strategies to reach its firm objectives and create value. As a term in financial analysis, Lumpkin and Dess (1996) expressed risk in the perspective of the risk-return trade-off that specifically refers to the probability of a loss or negative outcome. In the context of small business, Dickson and Giglierano (1986) articulated risk as the likelihood that a new venture will fail to reach a satisfactory sales, profit or return on investment (ROI) target.
Given the lack of clarity of many concepts in the risk literature, it seems important to explain the term “risk-taking”. Miller and Friesen (1978, p. 923) captured the notion of risk-taking as “the degree to which managers are willing to make large and risky resource commitments - i.e. those which have a reasonable chance of costly failures”. That definition has been used repeatedly over the years in much literature. Covin and Slevin (1991, p.7) described risk-taking as “high-risk projects with chances of very high returns”. More broadly, risk-taking has been associated with “taking bold actions by venturing into the unknown, borrowing heavily, and/or committing significant resources to ventures in uncertain environments (Rauch et al. 2009, p. 763). This definition is somewhat similar to Baird and Thomas’ (1985) definition of risk-taking.

Conceptually, the attitude-risk relationship builds on the understanding that risk is inherent to attitude rather than a thing apart (Stone & Mason 1995). Linking the two terms give a definition of risk attitude as “a generic orientation (as a mind-set) towards taking or avoiding a risk when deciding how to proceed in situations with uncertain outcomes” (Rohrmann 2002, p. 2). The attitude variations depend on the degree of a risk’s occurrence (Stone & Mason 1995). The explanation of firms’ attitudes to risk may lie in the distinction between two kinds of risky situations, namely between purely chance-related and skill-related risks (Macko & Tyszka 2009). The difference between these two kinds of risk is the extent to which the firm has control over the outcome (Macko & Tyszka 2009). In the present research, the financial attitude towards risk-taking depends on the knowledge or skill-related risky situations and not in purely chance-related risky situations. By the same token, Gilmore et al. (2004) postulated that the key tool to manage risky situations is the use of the firm's knowledge competencies. Firms are expected to take risks but this depends not only on the estimated likelihood of that event and the precision of that estimate, but also ‘where they consider themselves more knowledgeable or competent than in a context where they feel ignorant or
uninformed’ (Heath & Tversky 1991, p. 7). Indeed, firms’ financial attitudes to risk-taking can be related to financial resources. When estimating the riskiness of a situation, firms form some financial capabilities about potential outcomes. They might perceive riskiness of the situation based on their financial resources. Firms should distinguish between risk in those situations where they think they have at least some financial resources over the outcomes and those situations where the firm believes it has no or minimal financial resources to control the consequences. The understanding of the situation and the consequences of action or inaction taken by the firm can reflect its financial resources.

Assessing financial attitude towards risk-taking in the realm of financial resources would be valuable as firms tend to experience high levels of internal and external uncertainty. Confronted with such ‘weak situations’, in which the situations are not clear-cut enough to determine a course of action, firms cannot afford, in terms of cognitive wherewithal, time or other resources, to be inclusive in decision-making (Simsek 2007). Financial resources may facilitate the decision process, which provides an empowering ability to think rationally and to take critical stances (Gee 2008). Firms identify those risky situations and within them a set of potential actions that have the least possibility of failure. That consequently minimises the probability of making costly decisions. The notions of risk-taking relate to the belief that the greater the firm's dealing with strategic risk-taking, the less uncertainty it will have regarding the likely outcome of taking the risks (Wiseman & Gomez-Mejia 1998) and the more reasonable the decision will be.

Previous research has shown the importance of a propensity for risk-taking (Weber et al. 2002; Clark-Murphy & Soutar 2004; Grable et al. 2004). The complexity of financial attitude towards risk taking is evidenced in the findings of the Australia and New Zealand Banking Group Limited research (2011). In their survey, they find that the financial attitude towards risk taking is positively associated with staying informed. Chen
and Volpe (2002) show that financial literacy improves the understanding of the risks associated with the complexity of investment planning. As risk-taking creates high levels of uncertainty outcome, firms should be prepared to cope with ambiguity in their strategic approaches. They should have more ability, greater autonomy and more confidence in managing the firm and undertaking higher risk strategies (Miller 1991). Financial resources may reduce the degree of potential loss associated with taking a particular risk by facilitating firms to more comprehensively judge and rationalise taking actions that might otherwise be deemed too risky without such resources. The level of financial resources may influence the extent to which particular strategic responses were understood as tolerable risks. Financially less resourceful firms may lack adequate awareness to efficiently judge risks, which might limit their chances to achieve very high returns. Firms with high levels of financial resources may be more likely to be involved in more strategic risk-takings and can be expected to better produce high performance. Undoubtedly, the financial attitude towards risk-taking associated with running a business undertaking is related to the financial resources of the firms.

Intuitively, different firms will exhibit different responses to the same situation as a result of their differing underlying financial attitudes towards risk taking. Some firms can accept more risk than others (Wisemen et al. 2000) and some can manage the risk better than others, depending on their financial attitude and orientations to uncertainty. Financial resources may serve as a mechanism to reduce business uncertainty and so perform better financially and strategically. Hence, examining the link between financial attitude towards risk taking is a crucial factor in understanding firm outcomes as it is driven by the attitude of the firm concerned and the extent to which the risk matters.

Whether or not firms are likely to face unstable performance may not entirely relate to their financial knowledge but it may also depend on their financial attitude towards risk-
taking. To improve performance, SMEs need to be equipped not only with a basic level of financial knowledge but also with skills to apply judgment elements of what is desirable or undesirable, related to risk-taking attitude. The success of a firm's performance is also dependent on its financial attitude (Oseifuah 2012).

Many studies have attempted to provide empirical evidence of risk attitudes as they affect small business success (examples include, Rauch & Frese 2000; Krauss et al. 2005; Cressy 2006; Lammers et al. 2010). Risk attitudes affect not only the decision but also the survival and failure rates of firms (Caliendo et al. 2008). Yet, the importance of a firm’s financial attitude to risk-taking on its performance has not yet been demonstrated, particularly from the financial literacy point of view. This is the first time that research has been undertaken that examines financial attitude towards risk-taking by SMEs in Australia. Presumably, those with better financial attitudes to risk-taking are more likely to improve a firm’s performance. Having the financial resources to wisely manage financial attitude towards risk-taking can be essential for successful performance.

There is a positive association with entrepreneurial businesses, small businesses and risk-taking by virtue of the frequent references to the high failure rates of small firms (Palich & Bagby 1995; Jennings & Beaver 1997; Stokes 2000). Venturing a small and medium business can be a particularly risky undertaking. Risk-taking has been suggested as an essential attribute of high performing firms (Covin & Slevin 1989; Jennings & Beaver 1997; Stokes 2000; Fajnzylber et al. 2006). A similar argument referring to the willingness to take risks was given by Lammers et al. (2010) to explain the positive relationship between risk perceptions and profits. Empirically, Keller and Siegrist (2005) showed that financial risk attitude is a significant positive predictor of willingness to invest in stocks. While some studies have reported a significant relationship between risk-taking and business success (for example, Rauch & Frese 2000; Krauss et al. 2005;
Cressy 2006; Lammers et al. 2010) others (for instance, Bromilley (1991) have found negative relationships between risk and return. West and Worthington (2012) contended that financial risk-taking could be wealth-accumulating in a macroeconomic environment. Financial risk attitude is important to firm performance, particularly in small enterprises (Krauss et al. 2005).

Increased domestic and global competition increases the need for a firm to stay ahead of competition and the need to constantly seek new opportunities (Wiklund & Shepherd 2005). Financial attitude towards risk-taking of the firm may be relevant in deciding what type of decisions and firm strategies to make. Some strategies may produce gains with a greater variance than others that require more risk of capital losses. Risk-averse firms might be less willing to use those strategies. Thus, firms need to be able to thoroughly weigh which ventures are inherently too risky and how much risk is acceptable before proceeding with any decision that will influence overall performance. Moreover, financial attitudes to risk-taking can be an essential contributor to a firm’s success. It emphasises addressing uncertainties proactively in order to maximise the probability of exploiting opportunities (Covin & Slevin 1989; Lumpkin & Dess 1996), to minimise threats and to optimise firm performance. Firms, therefore, are advised to develop an appropriate financial attitude towards risk-taking so they are less likely of being at risk with a reasonable chance of costly failures. Nonetheless, as financial attitudes towards risk-taking become more established, the firms will become less predisposed to taking risks and the firm’s perception of a risky situation may change over time (Gilmore et al. 2004). It is important to understand financial attitudes to risk-taking and the impact they can have on the firm's performance if the risk is not properly managed. Apparently, the level of risk influences what kind of action is set. The more valuable the risks are for the firms, the more they are inclined to pursue them. A better approach, however, is to learn how to weigh each situation and then to choose the response which is most appropriate to
the situation and which offers the best chance of achieving their objectives (Hillson & Murray-Webster 2006). It could be argued that those firms, who have taken their risks effectively, could be considered to have successfully improved their performance. They have better ability, greater autonomy and more confidence in managing the firm and undertaking higher risk strategies (Miller 1991).

According to the Organisation for Economic Cooperation and Development (2005), financial awareness could also significantly affect the level of financial resources. The complexity of financial products and investment opportunities in the market has significantly increased, and this requires a new level of financial awareness. Financial awareness should be considered as a part of financial knowledge (Mason & Wilson 2000), which logically derives in part from underlying knowledge. In order to be financially resourceful, firms must be financially aware. Contrarily, firms may be financially aware but financially less resourceful. For example, the National Health Service (NHS) managers in Marriott and Mellett’s study may have performed badly on the test and yet still have understood the factors relevant to their decision-making with an effective awareness of the financial consequences. They may still be financially aware using Marriott and Mellett’s (1996) definition. On the other hand, managers may perform very well on Marriott and Mellett’s test of financial skill but still be financially less resourceful. That is, they may still not be able to understand and analyse financial information relevant to their decision-making. Being able to define and calculate is not necessarily synonymous with being able to understand and analyse (Mason & Wilson 2000).

The present research examines financial awareness of financial reports as an indicator of a firm’s financial resources. Awareness of financial reports is mainly concerned with the understanding of firm accounts and interpretation of the financial statements to enable
stakeholders to make informed decisions (Norman 2011). The interpretation of the financial report, however, requires a high level of technical skill and involves knowledge of accounting standards and concepts. In this regard, studies have been undertaken on the importance of financial awareness of financial reports. For example, the study by Marriott and Mellett (1996, p. 64) highlighted the importance of financial awareness as “the manager’s ability to understand and analyse financial information and act accordingly”. Nasser and Nuseibeh (2003) revealed that the user groups surveyed in the study relied mainly on information of annual reports to provide information for decision-making. Other research into financial awareness of annual reports includes that by Peel and Pendlebury (1998). They examined whether the financial awareness of employees who hold shares in their own companies had “led to an increase in the use by employees of information sources about the company’s financial performance, in their perceived understanding of this information and to an improvement in their own performance in a multiple-choice test of accounting and finance knowledge” (Peel & Pendlebury 1998, p. 2). Argilés and Slof (2003) concluded that the extent of using financial reports is a proxy for greater financial awareness that would indeed useful for decision making and performance.

Interestingly, some research shows that there is a gulf between the way financial information is presented and the way in which that information is actually utilised (Bartlett & Chandler 1997; Mason & Wilson 2000). In a similar vein, Reddaway et al. (2011) identified there is a disconnection between information compiled and information used, and between what conventional wisdom, such as text book knowledge, expects to be useful and what SMEs appear to consider useful. Recently, Halabi et al. (2010) investigated the reality of financial and management accounting in small firms. Their in-depth analysis revealed these small firms have a very basic understanding of accounting information and problems with financial literacy. They also found that accounting reports
were not widely used as the primary means of assessing business performance. In addition, McMahon (2001) examined the impact of financial reporting practices upon business growth and performance outcomes amongst manufacturing SMEs in Australia. The author argued that the comprehensiveness of financial reporting practices has only limited potential as an explanatory factor for business performance in SMEs. They may not read this because they lack the financial capabilities to understand what is presented or they may feel that this information is not relevant to their decision-making (Marriott & Marriott 2000). This may prevent firms from being aware of the financial consequences of a decision.

Improved financial awareness of financial reporting should be realistically viewed as simply part of a competence in financial resources, which is likely to lead to more effective and efficient management of SMEs and significantly improve their long term survival (McMahon 2001; Charters et al. 2008). In these situations, it may be appropriate for firms to be financially aware of their corporate oversight responsibilities with respect to financial reporting, to ensure that the firm’s economic resources are used effectively and systematically to improve its performance. Also, there is a particular need in SMEs for the skills of financial analysis, which will allow financial statements to be read and understood, whether they contain historical or forecast information (McMahon 2001).

**Reporting standards for SMEs**

According to the Framework for the Preparation and Presentation of Financial Statements, the objective of financial statements is to provide information about the financial position, performance and changes in financial position of an entity that is useful to a wide range of users in making economic decisions. Although the International Accounting Standards Board (IASB) previously considered, in principle, full International Financial Reporting Standards (IFRS) as suitable for all entities, it also
acknowledged the different user needs and cost considerations for SMEs (International Accounting Standards Board 2004). As a result, on 9 July 2009, the IASB released the International Financial Reporting Standards for Small and Medium sized Entities (IFRS for SMEs). The IFRS for SMEs is a simplified version of full IFRS, aimed at the needs for a stand-alone set of standards for SMEs. The IFRS for SMEs is less complex and has 35 sections (Pacter 2009). Some of the IFRS recognition and measurement requirements have been modified or omitted, since SMEs usually do not have publicly-traded debt or equity securities. Topics addressed in the full IFRS that are omitted from the IFRS for SMEs are earnings per share, interim financial reporting, segment reporting, insurance, and assets held for sale (Thornton 2009; Jermakowicz & Epstein 2010).

The definition of SMEs varies in different countries. They may be defined in terms of total sales revenues, number of employees or total assets (see Section 2.7, below). In the context of the IASB, SMEs are defined as “entities that do not have public accountability and publish general purpose financial statements for external users” (International Accounting Standards Board 2009a, p. 10). While, the IASB uses SME as the name for entities eligible to use the new standard, other sources use SMEs as “private entities” or “non-publicly accountable entities” (Pacter 2009, p. 28). As of January 2011, 73 jurisdictions have either adopted the IFRS for SMEs or planned to adopt it within the next three years (International Financial Reporting Standards 2011). The justifications for these decisions lie in the consideration of users’ needs as well as the cost-benefit constraint in order to reduce the burden on SMEs. There are a number of potential benefits of adopting IFRS for SMEs, including: improving access to capital, improving quality and comparability of reporting, facilitating cross-border trading, focusing on the needs of users of SME financial statements, auditing efficiencies, easing the burden where full IFRS have previously been required and providing a stepping stone to full IFRS for private entities aiming for an Initial Public Offering (Thornton 2009). There is,
however, a general concern that the costs of implementing IFRS far exceed the benefits, and as such can impose a significant burden on SMEs (Poroy Arsoy & Sipahi 2007). Such adoption is likely to cause SMEs to incur significant costs due to having limited staff and resources (Poroy Arsoy & Sipahi 2007).

It is expected that firms will keep abreast of changes to the legislation to ensure all prescribed requirements are complied with. Firms need to be aware of emerging issues on financial reports that may affect their performance. While they have to satisfy statutory reporting requirements, they are responsible for ensuring that relevant users receive accurate financial information on a regular basis to support evidence-based operational and strategic decision-making. Understanding financial reports brings an important detachment and objectivity to the decision making process that can help to avoid a wrong course of action and facilitate to identify strategic directions for firms. More survey studies on IFRS for SMEs are needed in both developing and developed countries since they may provide different feedback and views for future directions (Uyar & Güngörmüs 2013).

According to IFRS (2009), many private companies are still unaware of IFRS for SMEs. Almost half of the respondents from SMEs are not aware of the IASB’s standard of IFRS for SMEs. More recently, Uyar and Güngörmüs (2013) found that their respondents were not highly informed about the omission of certain topics in IFRS for SMEs. Most participants were aware neither of the key differences between full IFRS and IFRS for SMEs nor of the measurement simplifications made in IFRS for SMEs.

Many countries exempt SMEs from statutory audits and subject them to differential reporting requirements (Sian & Roberts 2009). Australia is one of the few jurisdictions that have not adopted IFRS for SMEs as an alternative to the complex IFRS accounting
standards that the IASB has stated are generally designed for listed companies. Instead, the Australian Accounting Standard Board (AASB) has issued amendments to Australian Accounting Standards to implement a ‘Tier 2’ reporting framework based on ‘Reduced Disclosure Requirements’ (RDR) for use by non-publicly accountable entities. The RDR involves the same recognition, measurement and presentation requirements as IFRS but with significantly reduced disclosures (Australian Accounting Standard Board 2010). The Tier 2-RDR applies to annual reporting periods beginning on or after 1 July 2013, but may have been adopted earlier for annual financial reporting periods beginning on or after 1 July 2009. Australia has progressively de-regulated micro-entities in terms of financial reporting requirements, meaning that the reporting entities to which AASB Standards apply are not only relatively experienced with IFRS but they are more homogeneous in capability (Australian Accounting Standard Board 2010). In general terms, it is reasonable to say that RDR, in terms of the quality of financial reporting it produces, is not inferior to IFRS for SMEs on disclosure and accepts the rigor of IFRS for recognition and measurement (Australian Accounting Standard Board 2010).

There have increasingly been calls for firms to be aware and informed about their financial statements, specifically for small businesses (Sian & Roberts 2009). No attempt has been undertaken in any financial literacy study to examine the impact of financial awareness of financial reporting on firm performance (Marcolin & Abraham 2006; Bruwer 2010). The present research therefore, tries to shed some light on this gap in the context of SMEs. The aim to examine financial awareness in this domain is of particular value for two reasons. First, this is an area where there is a continual issue by many private companies in which they do not fulfill or are unaware of accounting standards (Marriott & Marriott 2000; Argilés & Slof 2003; Sian & Roberts 2009; Reddaway et al. 2011). Secondly, there are numerous and substantial risks involved in making poor financial decisions that will impact a firm’s performance. Firms that are financially
aware of their financial reports should be better informed of their strategic decisions than firms that are unaware. Indeed, financial awareness of financial reports can be crucial to the survival of SMEs.

Argilés and Slof (2003) note that there is a lack of empirical studies to support the notion that financial reports are a useful control mechanism in SMEs. Most research has focused on the importance of financial reports in larger firms, which are those that generally satisfy the statutory reporting requirements. Practically, findings and knowledge of large firms does not necessarily hold true in the context of SMEs because, in the words of Welsh and White (1981, p. 18), “A small business is not a little big business”. Jones and Higgins (2006) revealed that larger firms tended to have greater knowledge of IFRS including their expected financial reporting impacts, and were generally more advanced in the implementation process than smaller firms. The results also showed that the degree to which IFRS rated as a business priority was found to be strongly associated with the perceived impacts that these standards are expected to have on their financial performance. In a similar vein, Argilés and Slof (2003) concluded that firms would only be better off using financial reports if the expected gain in performance is sufficiently large to offset the cost of obtaining them.

Many studies have shown that small firms derive benefits from the growth in information technology and professional accountant expertise (Argilés & Slof 2003), leaving the firms financially unaware of and unconcerned with issues of financial reporting. Using a postal questionnaire from 2,070 small owner-managed enterprises (SoMEs), Sian and Roberts (2009) found that most of these firms produced accounting records based on computerised packages. The results also showed that the majority of SoMEs were found to be not particularly financially aware of their financial reports because they relied on their accountants to prepare their financial statements and were often left bewildered by
the complexity of the information provided. As noted in previous studies (John & Healeas 2000; Marriott & Marriott 2000; Collis & Jarvis 2002), accountants commonly provide verbal explanations or analysis of the accounts to the firms. As a consequence, the accountancy information contained in the financial reports and the work involved in producing it are not seen as any additional value for money (Argilés & Slof 2003).

Every firm has an operational and a statutory responsibility for preparing financial statements. Financial reports can represent a fiscal reflection of the performance of a firm and can be a very valid measure of the firm’s position. Financial reports are generally believed to be a useful instrument that enables firms to better understand their performance (McMahon 1999). Firms that are financially aware of their financial reports may help to maintain a targeted level of cash reserves, financial flexibility and assure an annual surplus so the performance can be sustained and improved. Apparently, accurate, timely and robust financial information are essential components of financial reports to help firms make strategic decisions they might not make in the absence of particular pieces of information. Moreover, financial awareness of financial reports can be essential to the success of SMEs as they may help the firm to both uncover problems and identify corrective action. Such awareness may provide firms with the information that they need to contribute valuable insights to their activities and planning. Indeed, it can be used as a roadmap to steer firms in the right direction and help them avoid costly breakdowns. All of these should result in better performance when the firms are financially aware of their financial reports.

Despite these benefits, most small firms do not comply with specific accounting standards and only report financial information for taxation purposes (Halabi et al. 2010). This is problematic as literature on small firms reinforce that annual reports are little used by small firms, probably because of lack of clarity and understanding about the
management accounting practices (Marriott & Marriott 2000; Reddaway et al. 2011). In their review of North American literature, DeThomas and Fredenberger (1985) found evidence that, while eighty one per cent of small firms produced summary financial reports, only eleven per cent used those reports in their decision-making. A re-examination study by Bartlett and Chandler (1997) on a survey by Lee and Tweedie (1977) revealed that the annual report was still not widely read by private shareholders, despite the efforts aimed at improving the presentation of information in the financial statements.

Presumably, a firm’s performance can be improved if its managers have a good level of education, have adequate financial knowledge, have an effective financial attitude towards risk-taking and are financially aware of their financial reports. This research is a valuable starting point in understanding the financial resources at the firm level, specifically on SMEs in Australia. It also highlights how firms and other relevant agencies can provide support to increase the financial resources of SMEs so that they can perform better.

2.3 Learning Orientation

Learning orientation has attracted much attention in a range of disciplines including psychology (Schein 1993; Nonaka & Takeuchi 1996), management (Senge 1990; Huber 1991), sociology and organisational theory (Law 1994; Coopey 1996), marketing (Slater & Narver 1995; Baker & Sinkula 1999), and strategic management (Hamel 1993; Pennings et al. 1994). This surge is attributed to the recognition of the association between general learning orientation and the creation of competitive advantage (Day 1991; Dickson 1996) and superior firm performance (Baker & Sinkula 1999; Farrell & Oczkowski 2002). Most of the literature has devoted significant attention to exploring the
impact of learning orientation on innovation capability (for example, Hurley & Hult 1998; Keskin 2006). However, few studies have investigated the relationship between learning orientation and firm performance. The present research attempts to fill the existing research gap by exploring the impact of learning orientation on firm performance in Australian SMEs.

2.3.1 Definitions of learning orientation

Definitions of learning orientation abound in the literature. Yet there is no general agreement on how to define and operationalise the learning orientation construct. Learning orientation represents an organisational cultural characteristic (Huber 1991; Nasution et al. 2011), in which a firm constantly challenges the assumptions that frame the firm’s relationship with its environment, both internal and external (Baker & Sinkula 1999; Sadler-Smith et al. 2001). From a managerial perspective, Atuahene-Gima et al. (2005) suggested that learning orientation is seen as the extent to which a firm attaches value to new skill development, learning enjoyment, curiosity for new ways to enhance performance, preference for challenging work, and critical reflection on the firm. Learning orientation is also reflected by a set of knowledge-questioning values (Sinkula et al. 1997) which has a direct effect on the degree to which higher order learning occurs (Slater & Narver 1995). Calantone et al. (2002) conceptualised and operationalised learning orientation as an organisation-wide activity of creating and using knowledge to enhance competitive advantage. Lin et al. (2008) contended that learning orientation denotes the extent to which a firm systematically challenges established basic creeds and practicality. Learning-oriented values are manifested in a firm’s behaviour and skill in creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights (Garvin 1993). Indeed, it can be a source for stable competitive advantage and will allow a firm to react to new environmental opportunities and threats (Slater & Narver 1995).
Although, organisational learning is analogous to learning orientation (Slater & Narver 1995; Sinkula et al. 1997), organisational learning cultivates less emphasis on cultural aspects compared to learning orientation (Sinkula et al. 1997). One of the most useful definitions in the context of cultural aspects is provided by Huber (1991): learning orientation broadly is the development of new knowledge or insights that have the potential to influence behaviour through its values and beliefs within the culture of the organisation. This definition is adopted by a number of studies such as Slater and Narver (1995) and Hult et al. (2004). Likewise, Nasution et al. (2011, p. 338) echoed the concerns of Huber (1991), stating that learning orientation is “a cultural aspect that emphasises the process of improving insights, knowledge, and understanding to improve organisational performance and customer value”. This view is similar to that of Slater and Narver (1995) that focuses on the role of a firm's culture and climate in conceptualising its learning-related behaviour and performance. In essence, culture refers to “the deeply rooted set of values and beliefs that provide norms for behaviour in the organization .... Climate describes how the organization operationalises its culture, the structure and processes that facilitate the achievement of the desired behaviour” (p. 67). Hence, to a large extent, “culture amenable to learning” is a prerequisite (Galer & van der Heijden 1992, p. 11) to dictate the direction and type of learning (Baker & Sinkula 1999).

Following Sinkula et al. (1997, p. 309), the present research defines learning orientation “as giving rise to that set of organisational values that influence the propensity of the firm to create and use knowledge”. The fundamental construct is not comparative advantage in product value or cost but is higher order learning (Dickson 1996). How a firm orientates towards learning can be critical in creating a sustainable competitive advantage (Hult et al. 2000) to achieve superior performance.
Learning orientation versus dynamic capabilities

Learning orientation from previous studies was assessed by whether multiple terms were used to represent the same construct such as dynamic capabilities. Literature offers evidence that learning orientation and dynamic capabilities are two different constructs. Based upon the review, the operational definitions of dynamic capabilities fell within three categories; environment sensing, innovative responding and resource renewing (Yung-Chul 2013). Whereas, learning orientation is composed of commitment to learning, shared vision and open-mindedness (Sinkula et al. 1997).

It is worth noting that several scholars, who have explicitly investigated the concept of learning orientation and dynamic capabilities. Yung-Chul (2013) shows that the organisation culture of learning orientation is shown to facilitate a firm’s dynamic capabilities, which have significant effects on the business performance. In another study, Ali et al. (2010) highlights the mediating role of learning processes in understanding how marketing and learning orientations might influence a firm's dynamic and substantive capabilities.

Literally, the dynamic capabilities concept has not been described as learning orientation. Therefore, the role of dynamic capabilities is not explored further in the present research.

2.3.2 Advantages of learning orientation

Learning orientation, which helps a firm create a future by unlearning its past (Hamel & Prahalad 2008; Wang 2008) has become more important in the rapidly changing and aggressively competitive market environment (Carrillo & Gaimon 2004). Moreover, the higher failure rate in the first years of business start-up highlights the importance of continuous learning (Wang 2008) throughout the life of a firm. Learning orientation is
essential for firm survival (Casey 2005). It reflects a firm’s capacity to change its “view of the world” by unlearning obsolete perspectives, systems, and procedures and proactively to pursue new knowledge to replace them with better approaches (Baker & Sinkula 1999). The ability to develop new knowledge faster than its competitors has been known to be a source for stable competitive advantage (Slater & Narver 1995; Liu et al. 2002) and superior firm performance (Baker & Sinkula 1999).

Moreover, learning orientation has a positive effect on managerial decision-making (Baker & Sinkula 2000; Celuch et al. 2002). It provides the opportunity for decisions to be made with an understanding of the myriad variables and relationships with processes and the market that set the stage for making correct customer value assessments, creating choices that lead to desirable business performance (Baker & Sinkula 2000). High levels of organisational learning tend to adopt participative decision-making and thus improve the performance of the firm (Wu et al. 2009).

In addition, learning can provide an understanding of the nature of a firm’s strengths and weaknesses, offering it a greater ability to exploit its competitive advantage (Martinette & Obenchain-Leeson 2012). Firms that learn from their successes and failures experiences tend to be more successful (Baker & Sinkula 1999; Hult et al. 1999; Zahra & Garvis 2000; Wang 2008). Furthermore, learning enables a firm to quickly react to new environmental opportunities and threats (Lumpkin & Lichtenstein 2005; Slater & Narver 1995) and thus enhance performance (Zahra & Garvis 2000). It allows a firm to successfully exploit opportunities and neutralises the threats in its market as it has the knowledge and ability to understand the needs of its customers better than its competitors do (Day 1994; Sinkula 1994).
A firm committed to learning is likely to possess state-of-the-art technology (Gatignon & Xuereb 1997), which can lead to higher financial and strategic performance. Such firms, rather than being market-led, may at times believe it is more appropriate to lead the market (Baker & Sinkula 1999). As noted by Jacobson (1992, p. 794), “The very nature of competition suggests that no replicable strategy will allow businesses to earn long-run supranormal profits”. Such orientation provides the basis for a competitive advantage that is very difficult for competitors to imitate and leads to superior firm performance (Slater & Narver 1994).

Learning orientation is pre- eminent over other resources because it enables firms to maintain long-term competitive advantages by continuously improving their long-held practices and knowledge at a faster rate than rivals do (Slater & Narver 1995; Dickson 1996). This should lead directly to superior outcomes, such as long-term client relationships (Santos-Vidanje et al. 2005), fast market-information processing (Dickson, 1996), greater new product success, superior customer retention, higher customer-defined quality and, ultimately, superior growth and profitability (Baker & Sinkula 1999; Slater & Narver 1995). Scholars (such as Yilmaz et al. 2005) have further recognised that learning orientation relates strongly to qualitative performance on employee satisfaction and commitment, quality improvements and innovativeness. Supporting many of the same notions on the importance of learning orientation, Srivastava (2011 p. 157) notes:

A talented and experienced workforce, a close relationship with the customer, a deep understanding of customer needs, a shared commitment to their success, and the ability to respond quickly to changing customer priorities are universally accepted as primary sources of competitive advantage.

Indeed, learning orientation “is a source of flexibility, adaptability and competitive advantage” (Spicer & Sadler-Smith 2006, p. 141) and superior firm performance (Baker

2.3.3 Determinants of learning orientation

Three core values that reflect the predisposition of a firm to learn are commitment to learning, open-mindedness and shared vision (Day 1994; Sinkula et al. 1997).

Commitment to learning

Commitment to learning concerns the values placed on learning activities within a firm, and the extent to which these values are viewed as axiomatic to the firm (Tobin 1993). The degree to which a firm places value on and promotes learning (Sinkula et al. 1997) is likely to foster learning climates and to encourage organisational learning (Slater & Narver 1995). If a firm places little value on learning, little learning is likely to transpire (Sackmann 1991). Commitment to learning is linked to the notion of thinking literacy that is the ability to think and reason (Tobin 1993), which is necessary for firms to regularly detect and correct errors theory in use (Baker & Sinkula 1999). In this respect, a firm committed to learning will by no means lose the opportunities produced in the market, if it understands the cause and effects of its actions (Shaw & Perkins 1991). Firms that are committed to learning value the need to develop generative learning as a core competency (Sinkula et al. 1997), which is crucial for survival. A strong commitment to learning explicitly encourages a learning culture, as they consider learning to be of utmost importance for future investment. How a firm reacts to new, external information is essential to the intensity of the learning process. The more it considers learning as valuable, the more feasible it will be to get through this process, which is necessary for upholding its performance (Sinkula et al. 1997). Thus, superior firm performance requires constant commitment and effort from all members of the firm. Indeed, the firm committed to learning can increase its ability to improve performance.
Open-mindedness

Open-mindedness is reflected by the presence of values of willingness to critically evaluate the firm’s operational routines, assumptions and beliefs and to accept new ideas (Sinkula et al. 1997; Baker & Sinkula 1999). It implies carrying out a process of unlearning, oriented to avoid organisational behaviour rigidities (Baker & Sinkula 1999; Laverie 2008; Wang 2008; Santos-Vijande et al. 2005). Such a process will influence the firm’s behaviour to reflect new knowledge and insights (Garvin 1993). Open-mindedness is important since existing knowledge can serve as a fundamental obstacle to a firm making necessary environmental changes and reducing its ability to predict the market (Schindehutte et al. 2008). As the business environment becomes more complex and sophisticated, existing models may no longer remain valid and practical for the improvement of the firm. They will limit ways of thinking and acting unless the firm is open-minded enough to surface, confront, and challenge its status quo (Laverie 2008; Paparoidamis 2005; Sinkula et al. 1997; Slater & Narver 1995). Therefore, firms must proactively question their mental models and engage in the practice of unlearning (Baker & Sinkula 1999) and learn from their past successes and failures (Wang 2008). One of the foremost actions that firms can take to enhance their learning orientation is to cultivate the art of open, attentive listening (Sinkula et al. 1997). Encouraging learning can help firms to establish a good information-processing process and capabilities that are needed to understand market demands (Boulding et al. 2005).

Shared vision

Shared vision refers to the concentration of a firm developing and giving its members a sense of purpose and direction (Baker & Sinkula 1999a, b; Santos-Vijande et al. 2005). Galer and van der Heijden (1992) described such vision as “goal convergence”. Commitment to learning and open-mindedness directly influences the firm’s learning
intensity, while a shared vision “influences the direction of learning” (Sinkula et al. 1997, p. 309). The development of a shared vision provides an insight into the direction of organisational learning that helps a firm to understand what needs to be learned (Baker & Sinkula 1999; Calantone et al. 2002). Learning would be pointless without a clear organisational focus. In this respect, even if it is motivated to learn, it is difficult to know what to learn unless a shared vision is in place (Calantone et al. 2002; Santos-Vijande et al. 2005). The crucial element of the vision is that it is universally known, understood and used in a manner that gives the firm a sense of direction (Baker & Sinkula 1999). With shared vision, firms are more likely to share the business mission, desired outcomes (Baker & Sinkula 1999). A widespread problem in firms is that many great ideas are never implemented (Hult 1998) because of diverse internal interests (Brown & Eisenhardt 1995). Creative ideas can fail to be transformed into action due to lack of a common direction (Hult 1998). A shared vision synchronises the focus of various departments and increases the quality of learning (Calantone et al. 2002). Firms must be open to criticism (Garvin 1993), which will facilitate beliefs and values in the firm, thus instilling a shared organisational vision. Indeed, learning is conducive to a firm’s performance only when learning efforts are being placed effectively towards common organisational goals.

2.3.4 Direct effect on firm performance

Scholars have long acknowledged the importance of learning orientation to a firm’s performance, for example, Slater and Narver (1995), Baker and Sinkula (1999), Zahra & Garvis (2000), Farrell and Oczkowski (2002) and Mahmood and Hanafi (2013). Yet, there are not a lot of studies examining the matter. Generally, firms that adopt a high learning orientation perform better than firms that do not (Sadler-Smith et al. 2001; Celuch et al. 2002). Baker and Sinkula (1999) developed a model that relates these two concepts identifying learning orientation as one of a firm’s performance predictors. They
describe the orientation as a process of acquisition, distribution, interpretation and storage of information that influences the rate of internal and external change in a firm. This view is also voiced by Slater and Narver (1995), who postulated that a firm’s performance is essentially an outcome of learning orientation. They postulated that an increase in learning orientation results in an improved performance. Empirical evidence by Sadler-Smith et al. (2001) showed that learning orientation contributes in a positive way to performance in SMEs. The Santos Vijade et al. (2005) study further highlighted that the importance of learning orientation in a firm is linked to a better performance, both economic and non-economic. They indicated that learning orientation not only stimulates market-oriented behaviour but also positively affects the establishment of long-term relationships with strategic clients. Research by Yilmaz et al. (2005) provided further support for this view. They held face-to-face talks with the managers of 143 manufacturing firms in Turkey and concluded that there is a positive association between learning orientation and financial and market performances. In a later study that examines the effect of a learning orientation on SME performance, Hyvonen and Touminen (2006) showed that the emphasis a small firm places on customer relationships relative to learning-oriented assets indicate its value creation dominance and external effectiveness. Kropp et al. (2006) examined the interrelationships between aspects of entrepreneurial, market and learning orientations, and international entrepreneurial business venture (IEBV) performance. The results indicated that IEBV performance is positively related to the innovativeness component of a learning orientation. Eshlaghy and Maatofi (2011) indicated that learning orientation to all factors (commitment to learning, open-mindedness and shared vision) has significantly positive effects on a firm's performance. This finding is consistent with those of previous studies such as Calantone et al. (2002) and Wang (2008). Interestingly, Fong and Chang (2012) proposed a novel construct, “green learning orientation” and explored its impact on proactive environmental innovation capability and firm performance. They showed that
green learning orientation is positively associated with firm performance. They reasoned that firms that are pioneers in learning could enhance their innovation capability in terms of processes, products, and services as well as increase their performance. A more recent study by Mahmood and Hanafi (2013) indicates that learning orientation has a significant impact on competitive advantage and firm performance of women-owned SMEs in Malaysia. Cultivating a learning culture may indeed become one of the primary means to attain and maintain competitive advantage (Sinkula et al. 1997) and superior firm performance (Baker & Sinkula 1999).

With regard to the relationship between learning orientation and market share and new product success, Baker and Sinkula (1999) suggested firms need to implement a high level of generative learning, incorporating qualitative improvement of market-oriented processes. Learning orientation enhances relationships with new product success as it helps to establish good market information processing and capabilities that are needed to understand market demands. Similarly, Farrell and Oczkowski (2002) pointed out that learning orientation has a greater relative impact on the dependent variables of change in relative market share, overall performance and new product success. This view is in line with that of Farrell (2000): a learning orientation and market orientation both directly affect performance, but there is a slightly stronger effect with a learning orientation. Calantone et al. (2002) replicated and extended research by Baker and Sinkula (1999), and found a positive relationship between learning orientation and market share, new product success, and overall performance. Conversely, Santos Vijade et al. (2005) suggested that learning orientation has no direct impact on the performance of a firm, but that happens rather indirectly through market orientation. In other words, learning orientation or the desire to develop knowledge is not enough by itself to have a significant impact on a firm’s performance. Accordingly, it is necessary to actively translate the knowledge into operations of the firm in order to improve its performance.
Their result allows a deeper understanding of how learning occurs and impacts. These results, however, contradict the evidence of the studies conducted by Baker and Sinkula (1999), Farrell (2000), Farrell and Oczkowski (2002) and Calantone (2002).

An increasing number of empirical studies have demonstrated that an improvement in the level of learning orientation will lead to superior firm performance (Sinkula et al. 1997; Baker & Sinkula 1999a, b; Farrell 2000). Despite these relatively consistent findings, there appears to be some confusion as to whether a learning orientation is the pre-eminent strategy to achieve superior performance. For example, referring to a learning orientation and a market orientation, Baker and Sinkula (1999b, p. 301) argued that a “learning orientation is a more pervasive resource than market orientation because it has bearing on more than marketing-related activities in the firm,” and that a “learning orientation may be more important to the firm than a strong market orientation” (p. 305). Conversely, Baker and Sinkula (1999a, p. 422) contended, “In the absence of one or the other, it would be better for a firm to have a strong market orientation”. This view is similar to that of Farrell and Oczkowski (2002) who found that a market orientation is able to outperform a learning orientation in relation to a firm's performance. Given the contradictory theoretical arguments being espoused, the present research explores the learning orientation-firm performance nexus in the SME sector. In the present research, learning orientation is proposed to be an important antecedent to firm performance.

2.3.5 Interaction effect of learning orientation

There are also arguments that it is important to examine the interacting effect of learning orientation on firm performance (Sinkula 1997; Calantone et al. 2002; Hyvonen & Tuominen 2006). Although, many scholars have found that learning orientation is associated with superior firm performance (Sinkula et al. 1997; Baker & Sinkula 1999, 2002; Calantone et al. 2002), the role of learning orientation as an interaction effect is
still but seldom observed in practice. The present research intends to act on the call by those earlier papers to study the potential interacting role of learning orientation by examining its effect on the relationship between financial resources and firm performance.

According to Bapuji and Crossan (2004), learning orientation not only directly impacts firm performance but also acts as an interaction in improving variables in impacts on outcome. For example, Hyvonen and Touminen’s (2006) empirical results showed that technological innovation capability and strong relationships with customers and supply chain partners are the key determinants for positional and economic performance advantages. A firm’s commitment to learning strengthens its position in the marketplace. More recently, Huang and Wang (2011) acknowledged that a firm with a high degree of entrepreneurial orientation and market orientation still requires a learning orientation mechanism to create an environment that benefits the firm. There is also evidence not to support a synergistic relationship between learning orientation and firm performance. Baker and Sinkula (1999) theorised that the effects of market orientation on overall performance would be stronger when learning orientation is heightened. However, their findings demonstrated no moderating effect of learning orientation on such a link. The authors reasoned that whether there is a strong learning orientation or not, market-oriented firms are capable of adapting to explicit changes in the external environment through imitative behaviours, and thus improve overall performance. In a later study, Nasution et al. (2011) found that the interaction of entrepreneurship and learning orientation is not positively related to customer value.

Studies have demonstrated that learning orientation facilitates the generation of new knowledge, resources and skills that are essential to good performance (for example, Calantone et al. 2002; Farrell & Oczkowski 2002; Nonaka 1994). By the same token, the
present research proposes that financial resources of the firm might require a learning orientation mechanism to create an environment that is beneficial to its performance. A learning orientation facilitates a firm in acquiring, using and enhancing financial resources effectively to become a financially resourceful firm. Financial resources of the firm should be integrated with its learning practices to successfully establish and enhance such resources. In other words, learning orientation facilitates learning about financial resources as well as benefitting the development of new financial resources. Conversely, firms with lower learning orientation may have an unadaptable understanding of financial resources. The present research viewed learning orientation as the qualitative device behind financial resources that prevents rigidity. A strong learning orientation may reduce a firm’s reliance on financial resources as the only way to improve performance. If firms have an increased learning orientation, they will not only develop and enhance their financial resources, but also constantly examine the quality of their interpretive functions and the validity of the dominant logic that facilitates the whole practice (Baker & Sinkula 1999). Hence, the level of financial resources will be enhanced. Financial resources facilitate, but of themselves are not sufficient to breed, optimal outcomes. In addition to financial resources, a firm must also be able to institutionalise higher order learning practices that enable major improvements in performance. Learning orientation may indeed represent a developmental approach that helps to translate the financially resourceful firm into better performance.

2.3.6 Measures of learning orientation

Scholars have varying views as to the constructs of learning orientation. Some focus learning orientation with uni-dimensional analysis (Hult et al. 2003; Joo & Park 2010): others emphasise the need for multi-dimensional analysis (Kropp et al. 2006; Sinkula et al. 1997). The present research adopts the former standpoint, which assumes that underlying constructs have correlations of similar magnitude with performance. Most
researchers have also viewed learning orientation as a single dimension to measure it (Calantone 2002).

Following Sinkula et al. (1997), learning orientation is operationalised with three factors: commitment to learning, open-mindedness and shared vision, together consisting of twelve items. These values influence a firm’s desire to create and use knowledge (Baker & Sinkula 1999a; Selnes & Sallis 2003) to achieve better performance. The learning orientation model developed by Sinkula et al. (1997) has been a foundational work and a stimulator for succeeding studies, for example, Baker and Sinkula (1999a, 1999b), Calantone et al. (2002), Santos-Vijande et al. (2005), Nasution et al. (2011), Martinette and Obenchain-Leeson (2012) and Mahmood and Hanafi (2013). In addition to these three basic variables, the sub-variable known as intraorganisational knowledge sharing was measured through five items, which were dealt together with other elements of the learning orientation by Calantone et al. (2002), developed from Hult and Ferrel (1997). The authors contend that learning cannot occur unless a firm has an effective and efficient system of information sharing. Their scales have been adapted by several researchers such as Keskin (2006).

In terms of number of items, the 18-item model developed by Sinkula et al. (1997) to measure learning orientation has been used by many researchers such as Baker and Sinkula (1999) and Nasution et al. (2011). Although, their items are considered too long, other empirical studies that used their scale have verified the psychometric properties of the scale (Baker & Sinkula 1999). Learning orientation in the Lin et al. (2008) study was measured by a nine-item scale adapted from Slater and Narver (1995), Calantone et al. (2002) and Celuch et al. (2002). Breman and Dalgic (1998) used 23 items to capture learning orientation; however, not only is the number of items large; they acknowledged that the content, face and intrinsic validity of their scale could be questioned. The
The operationalisation of learning orientation used in the Kropp et al. (2006) study is based on Hult et al. (1999) with only four items in the learning orientation scale. The Sadler-Smith et al. (2001) scale consisted of thirteen items (nine learning orientation items plus four core rigidity items) in measuring active–passive learning orientation construct.

2.4 Chief Financial Officer (CFO) Experience

Complex financial decisions have become an increasingly crucial element of a firm’s competitive strategy (Economist 2008), leading to greater concerns about a CFO’s experience. A firm that has the greatest CFO experience may find it has new importance in today’s global business society. Due to the corporate failures and scandals of the late 1990s and early 2000s, widely disseminated good governance recommendations take issue with board characteristics such as codes of ethics, internal control systems and, perhaps most importantly, expertise and skills of the top officers. This concern is reflected in the Securities and Exchange Commission’s (SEC) requirement that CFOs must have sufficient financial experience and ability to enable them to discharge their responsibilities. In recent years, more firms are looking for qualified and experienced CFOs (Christensen 2012; Jiang et al. 2013). In the US, the Sarbanes-Oxley Act (SOX) came into force in 2002 and introduced major changes to the regulation of financial practice and corporate governance as well as new penalties for acts of wrongdoing. It changes how corporate boards and executives must interact with each other and with corporate auditors. The Act mandated new financial reporting responsibilities, including adherance to new internal controls and procedures designed to ensure the validity of their financial records. Thus, creates great opportunities for firms to improve their performance.
The importance of having a high degree of technical sophistication within the context of top management structure has raised questions regarding how top officers’ characteristics affect the performance of their firms. Increasing complexity and uncertainty in the competitive landscape have made it difficult for firms to rely merely on the capabilities of their CEOs (Thorsell & Isaksson 2014). Instead, it is the combined capacity of other top executives that influences a firm’s success (Carpenter et al. 2004), particularly CFOs. Scholars have come to recognise the need for a more heterogeneous examination of the role that top executives play in improving firm performance (Daily et al. 2003). While a growing body of evidence suggests that CEOs exert influence over the firm’s performance (Bamber et al. 2010; Dyreng et al. 2010; Demerjian et al. 2013), there is relatively little evidence that links CFO-specific characteristics to a firm’s performance. Specifically, the influence of the experience of top executives on performance is seldom considered in literature. This is probably due to issues of measurability and a lack of available data (Thorsell & Isaksson 2014). Generally, disclosure regulations do not require firms to provide much detail about the prior experience of directors in annual reports and other corporate disclosures.

Research on CFOs has predominantly focused on various areas such as CFOs’ appointments (Geiger & North 2006; Mian 2001), CFOs’ moral and ethics codes (Uddin & Gillett 2002; Stevens et al. 2005), CFOs’ negotiation with auditors (Gibbins et al. 2007) and CFO’ incentives (Indjejikian & Matejka 2009). The potential importance of a CFO is further evidenced by a number of studies that showed consequences of CFOs who failed to maintain effective controls include higher audit fees (Hoitash et al. 2008), higher cost of capital, lower earnings quality (Ashbaugh-Skaife et al. 2008) and negative market reaction (Hammersley et al. 2008).
2.4.1 Definition of CFO experience

The present research attempts to examine the impact of CFO experience on firm performance, specifically for SMEs. Consistent with Aier et al. (2005), the present research classifies the experience of a CFO if they are presently or was formerly a CFO. Since many firms going public for the first time are classified as small enterprises, the experience among upper echelons could be an issue (Thorsell & Isaksson 2014). Moreover, studies articulate that the lack of experience among top managers has been found to be an obstacle for growth in SMEs (Marriott & Marriott 2000; McMahon 2003; Moy & Luk 2003; Gooderham et al. 2004). Although the CEO is ultimately responsible for the firm’s performance, it is reasonable to assume that a CFO with financial experience can improve firm performance more effectively. Having CFO experience allows firms to operate more intensively in an area with the opportunity to handle financial issues on a proactive basis (Garai 1998).

2.4.2 Advantages of CFO experience

The financial experience of CFOs could be one of the factors that ultimately affect a firm’s performance. Presumably, the more experienced the CFO, the easier it may be to manage the financial complexity associated with a firm’s performance. Scholars (Carpenter & Westphal 2001; Kroll et al. 2008; Thorsell & Isaksson 2014) support the contention that technical experience is an important conditioning factor that influences the performance. The greater experience can enhance a management’s ability to monitor performance (Hillman & Dalziel 2003). The present research likewise believes the possession of adequate technical knowledge through CFO experience may be important in influencing performance. Such influences may be in the form of superior financial direction and guidance. Moreover, CFOs are expected to capitalise on their added knowledge as they carry out related jobs in similar contexts. A CFO’s experience in a firm is more likely to add value to the firm if they are aware of Porter’s 5-forces industry
analysis (Kroll et al. 2008). Firms with experienced CFOs possess valuable knowledge of the industry and are more likely to be instrumental in bringing to light critical elements of the industry environment and in focusing management attention on the most important areas for consideration (Kroll et al. 2008). Such knowledge would be expected to facilitate firms to accurately evaluate better strategies to improve performance. CFOs who lack relevant experience are probably incapable of fully contributing to effective strategies, leading to less improvement to firm performance. Undoubtedly, firms with CFO experience will not only be better placed to learn the specificities of strategies but also the association of such strategies to the firm's industry environment (King & Zeithaml 2003).

Much of the literature emphasises top executive’s propensity to engage in decision control without adequately considering whether they have the relevant experience to enable them to exercise control effectively (Kroll et al. 2008; McDonald et al. 2008). In a watershed article, Hambrick and Mason (1984) argued that top executives make strategic decisions based upon their idiosyncratic experiences. Studies articulate that top officers with more relevant experience tend to make better acquisition decisions (Kroll et al. 2008; McDonald et al. 2008). By the same token, the present research anticipates that firms having experienced CFOs may productively assist them in making value-enhancing performance decisions. As CFO experience increases, the scope of capabilities, knowledge and perspectives are also enhanced. In this view, firms may be expected not only to have better insights but also to have valuable guidance for making strategic decisions (Kroll et al. 2008). Thus, firms with more experienced CFOs could have better evaluation of options, increasing the quality of decisions made (Bunderson & Sutcliffe 2002; Carpenter et al. 2004; Doz & Kosonen 2007). Indeed, CFO experience could serve as a key source of guidance for decision-making.
Matsunaga and Yeung (2008) argued that the quality of a firm’s financial disclosures is a function of financial experience. A firm that has financial experience provides more precise earnings insights and a better quality of financial disclosure transparency. Similarly, Jiang et al. (2013) confirmed that firms with financial experience produce better earnings information and higher quality financial statements. Furthermore, studies highlight the ability of CFO’s financial experience and knowledge to generate effective monitoring (Krishnan 2005, Hoitash et al. 2009; Matsunaga et al. 2013) and a strategic internal accounting system in the firm (Kalbers & Fogarty 1993; Dhaliwal et al. 2010). Similar thoughts have been expressed by other studies such as Kroll et al. (2008).

### 2.4.3 Direct effect on firm performance

Research suggests that the experience of a particular executive influences firm outcomes (Hambrick & Mason 1984; Jackson 1992). Hambrick and Mason (1984) examined the demographic characteristics of top management teams and argued that experience increases the performance of the firm. Likewise, Jackson (1992) found that CFO experience has a positive effect on outcomes. Subsequent empirical studies provide further evidence. For example, Cannella et al. (2008) provided results from 207 US firms in 11 industries, which support their assertion that a top management team's experience is positively associated with firm performance. Dass et al. (2010) demonstrated that directors with experience in industries connected to their management role have superior performance as those directors bring valuable information to the firm. Empirical studies provide evidence that markets react more positively to the appointment of accounting financial executives (Davidson et al. 2004; DeFond et al. 2005). Analysis by Aldamen et al. (2012) also showed that audit committees with more experience and financial expertise are more likely to be associated with positive firm performance in the market. Using data from Australia, Gray and Nowland (2013) found that the market reaction is most favourable for appointees with the most prior directorate experience, two or more
other current directorships in listed companies and four or more years of directorship experience. In addition, Fich (2005) showed that shareholders react positively to the appointment of outside directors with experience as CEOs of other companies as the hiring firm is expected to benefit from the expertise and experience of the new appointee. All these studies suggest the importance of CFO experience and relationships in enhancing performance. Presumably, firms with experienced CFOs are better equipped to influence performance than firms without that benefit, as experience facilitates critical judgement of the situation (Gilmore et al. 2004). They are likely to “have a good perception of where the knowledge is and how to tap into it” (Bunderson 2003, p. 460) in enhancing firm performance.

While some previous studies document evidence consistent with this relationship, others document contrary findings (such as DeZoort 1998). Contrary to expectations, Thorsell and Isaksson (2014) found no statistically significant relationship between long-run aftermarket performance and director experience at the time of an initial public offering (IPO). They concluded that the previous experience of directors is less relevant to long-term aftermarket performance in Sweden compared to other countries studied in the literature review. They reasoned the lack of support of the stated hypotheses could be that smaller and larger markets react differently to governance characteristics. While experience arguably contributes to success, when they are highly experienced they can be overstretched and will not fulfill their fiduciary duties effectively. They are often vulnerable as they may unwittingly stick to working approaches that are commonly accepted in the industry and are less able to grasp new insights (Hambrick and Mason, 1984). Grimm and Smith (1991), and Hambrick and Fukutomi (1991) provided evidence that as CEO experience increases, their firm tends to make fewer changes in corporate strategy.
Although, there are some contradictory findings, overall the studies postulate that the presence of top management team experience should be an important contributing factor in the improvement of firm performance. The present research proposes that CFO experience can lead firms to grasp a better understanding of their operating and financial conditions as well as the external environment in which they operate. With the financial reporting oversight responsibilities of the CFO having increased under SOX, firms with experienced CFOs are likely to improve earnings quality through better judgment and production of more accurate accounting estimates (McNichols 2002). Firm performance can be influenced by the knowledge gained from CFO experiences (Omerzel & Antoncic 2008). Having CFO experience is recommended for SMEs as a proactive way to enhance financial oversight. The more experience they have, the better the performance. Firms having experienced CFOs can expect improved performance.

2.4.4 Interaction effect of CFO experience

Similar to trends worldwide (DeZoort et al. 2002), the Australian Corporate Governance Principles and Recommendations (Australian Securities Exchange Corporate Governance Council 2007) explicitly requires at least one audit committee member, including a CFO, to be financially literate and have experience in financial and accounting matters. Research indicates that most top executives lack financial expertise and almost half of them are financially illiterate (Vinnari & Näsi 2008). Financial resources alone may not be sufficient to improve firm performance. Rather, firms often economise in their decision making by relying on their experiences and values to explore, assess, and choose among options (Burton et al. 2002; Simsek 2007). Literature has shown that experience forms the bridge between knowledge and ability (Hilgert & Hogarth 2002; Uyar & Gungormus 2013) that can help to increase growth (Perren 1999). As such, having more CFO experience may not only develop a high level of financial resources but also further contribute to its impact on better performance.
Theoretically, the strength of the relationship between financial resources and firm performance can be enhanced more effectively if the firm has CFO experience. That can be expected to improve the impact of financial resources because of learned knowledge. The experience can shape the range of decisions that will facilitate the execution of outcomes. The shaped range of decisions serves as a basis of what the firm should consider financially and strategically. Moreover, with CFO experience, the financial resources of firms can be enhanced through experiential learning, by which they may be enabled to contribute positively to performance. Lacking such experience, firms may be constrained from becoming competitive. The performance of firms may be unimproved, not necessarily because their financial resources are low, but rather because they lack knowledge due to the absence of CFO experience which is needed to influence a particular strategy (Kroll et al. 2008). Indeed, in order to achieve superior firm performance, the knowledge, skills, experience, and perspectives must be integrated (Castka et al. 2001).

In the UK, the Smith Committee (2003) stated that the need for executives to be financially literate depended on the business context but noted that experience in corporate financial matters will normally be required. McDaniel et al. (2002) examined the recent executive Master in Business Administration (MBA) graduates as representatives of financial literates, while experienced audit managers represented financial experts. They found that the two groups’ views differed as to the identification and evaluation of a financial report, which improves audit committees’ corporate oversight responsibilities. In the context of the Blue Ribbon Committee (1999) paper, financial literacy is generally described as the ability to read and understand basic financial statements, while financial expertise typically is framed in terms of employment experience or certification in accounting or finance (PricewaterhouseCoopers 2000a). In
the present research, it is presumed that when a firm’s CFO has extensive experience, the financial literacy and performance relationships would be strong. Lyons et al. (2007) showed that financial experience had a positive effect on knowledge about credit reports and credit scores. The importance of experience in the development of knowledge is also evident in a study by Gilmore et al. (2004). Accordingly, as a CFO’s experience enhances financial resources and capabilities, it will help the firm to reap the benefits through better outcomes.

2.4.5 Measures of CFO experience

As past studies do not specifically distinguish CFOs from other top officers, the potential benefits of CFO experience and knowledge may have been masked. As a result, concentrating on CFOs provides a relatively strong analysis of how their experience influences a firm’s performance. Consistent with Aier et al. (2005), the present research considers the experience of a CFO in both their present and any former CFO position. Focusing on CFO experience as opposed to other top executives offers two significant empirical advantages in examining this relationship. First, the nature of the executives’ technical expertise is fairly well defined (Gates 1997). This allows the present research to examine CFOs, likely to have a high degree of technical expertise in accounting and finance. Second, CFO experiences are relatively homogeneous among firms. Thus, the research can employ a broad sample across multiple industries, which enables the study to better generalise the research findings. The present research measures CFO experience as the total number of years and months of experience that the CFO has in his/her current and previous position. This measure is consistent with the contention by Aier et al. (2005) those individuals who have more experience as CFOs will have greater understanding of accounting treatment unique in his/her firm or industry. In this regard, a well-experienced CFO can be expected to significantly influence a firm’s performance.
2.5 Firm Performance

Firm performance is one of the most important dependent variables of interest for researchers concerned with just about any area of management (Richard et al. 2009). Generally, performance refers to “the ability of an object to produce results in a dimension determined a priori, in relation to a target” (Laitinen 2002, p. 66). However, Neely et al. (2005, p. 1229) defined a performance measure as a tool used to quantify the efficiency and/or effectiveness of an action. Reviewing previous studies, Richard et al. (2009, p. 722) defined firm performance as something that “encompasses three specific areas of firm outcomes: (a) financial performance (profits, return on assets, return on investment, etc.), (b) product market performance (sales, market share, etc.), and (c) shareholder return (total shareholder return, economic value added, etc.)”. In their work ‘Organisational assessment: a framework for improving performance’, Lusthaus et al. (2002) identified four key elements to define organisational performance. The elements are: effectiveness (the extent to which objectives have been achieved), efficiency (the ability of the organisation to turn the costs incurred into accomplished goals), ongoing relevance (the ability of an organisation to keep its key stakeholders satisfied and project remains pertinent) and financial viability (ability to maintain the inflow of financial resources greater than the outflow). Carton and Hofer (2006) reviewed the empirical studies published from July 1996 to June 2001 in five American publications. The authors summarised the most common dimensions used to define organisational performance. They are: profitability measures (such as operating income and earnings before taxes), operational measures (such as market share and patents received), market-based measures (such as market value-added and return to shareholders) and growth measures (such as growth in sales or employees). Smith and Reece (1999, p. 153) affirmed that business performance could be viewed simply as “the operational ability to satisfy the desires of the company’s major shareholders”.

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Measuring firm performance is essential to monitor its operational activities (Zulkiffli 2014), to assess where it stands vis-à-vis their rivals and how firms evolve and perform over time (Richard et al. 2009; Australian Bureau Statistics 2010). While there are a number of ways to measure firm performance, there is little consensus as to what constitutes the best measure of firm performance (Lusthaus et al. 2002; Carton & Hofer 2006). Without adequate variables for measuring performance, it becomes difficult to objectively or consistently evaluate the quality of a firm's strategic decisions and performance (Chakravarthy 1986). Firm performance can be measured financially through cost sales, profitability and return on investment (Roth et al. 1991; Samiee & Roth 1992; Cavusgil & Zou 1994), and non-financially, such as by market share or quality of the products or services (Australian Bureau Statistics 2010).

2.5.1 Financial performance

Financial measures can play a crucial role in evaluating the overall performance of a firm. They are important indicators of how well firm is utilising its assets to increase firm value (Eccles & Pyburn 1992). As all firms have to prepare and keep their accounts, it is easiest to use information derived from the accounting data such as total sales, total income, total expenditure, salaries and wages, profit, return on equity, turnover and net income (Australian Bureau Statistics 2010). This type of information is available in the firm’s financial statements and has been used in many studies. Empirical research has relied almost exclusively upon a narrow set of financial measures such as profitability, sales growth (Cavusgil & Zou 1994), return on investment (ROI), return on assets (ROA) and earnings per share (Lumpkin & Dess 1995; Wood 2006) to operationalise organisational performance. Liquidity and gearing can also be computed as a basis to measure performance (Laitinen & Chong 2006). Despite criticisms of relying exclusively on financial measures, they have remained the preferred measures of firm performance as
they can be easily obtained, and are relatively accurate, objective (Malina & Selto 2004) and verified. These measures would be a relatively straightforward indicator compared to those non-financial variables (Laitinen & Chong 2006).

While the criteria discussed above are necessary measures for performance, they are not sufficient to motivate and evaluate mission accomplishments (Kaplan & Norton 2001). They have often been criticised because they tap only the financial criteria of performance, ignoring other important objectives of the firm (see Venkatraman & Ramanujam 1986; Kaplan & Norton 2001). In addition, many of these measures are based on estimates and judgments (Laitinen & Chong 2006) and are criticised for being historically focused (Chakravarthy 1986; Kaplan & Norton 2001). The financial measures are lag indicators in which they report the result of management decisions and firm performance but do little to predict future performance (Eccles & Pyburn 1992; Atkinson et al. 1997; Kaplan & Norton 2001). They do not provide timely and detailed information on process efficiency, or they focus too narrowly on inputs that are relatively insignificant in today’s business environment (Johnson & Kaplan 1987; Atkinson et al. 1997). As such, they provide misleading targets for managerial attention and fail to provide a relevant set of measures that appropriately reflect the technology, the products, the process and the competitive environment in which the firm operates (Johnson & Kaplan 1987). Relying exclusively on financial measures could sacrifice long-term value creation for the benefit of short-term performance (Porter 1992). Furthermore, Atkinson et al. (1997) argued that performance measures based primarily on financial indicators lack the focus and robustness needed for internal management and control. Financial measures are derived from an accounting system that is designed to instantly evaluate a firm’s behaviour over time rather than to communicate decision-relevant information for internal users. Thus, if it relies upon a singular measure of performance, a firm is unable to make specific conclusions about performance outcomes and their sources (Murphy et
Moreover, traditional financial measures are criticised because they ignore the needs of stakeholders other than the stockholder (Chakravarthy 1986). Although financial measures emphasise the needs of shareholders, there are many other stakeholders (both internal and external to the firm) whose needs should also be reflected in the performance measure (Brignall & Ballantine 1996). Other limitations that have been cited by previous studies are: lack of strategic focus and failure to provide data on quality, responsiveness and flexibility (Skinner 1974), they encourage managers to minimise variances from standard rather than seek to improve continually (Turney & Andersen 1989); they fail to provide information on what customers want and how competitors are performing (Kaplan & Norton 1992), they encourage short-termism and encourage local optimisation (Neely 1999).

Much of the criticism of financial measures stems from their failure to measure multiple indicators of performance because they primarily focus on accounting dimensions and ignore other aspects of a firm's performance (Venkatraman & Ramanujam 1986). Effectively, performance measures should embrace both financial and non-financial indicators that are relevant for the establishment of a firm and as a basis for their usefulness in improving its performance (Kaplan & Norton 1996; Laitinen 2002). Financial measures alone are insufficient to provide a complete picture of a firm's performance. The measures are criticised for being too late, too aggregated and too distorted to be relevant for assisting managers in planning and control decisions (Johnson & Kaplan 1987). Firms are not getting information to assist them about the efficiency and effectiveness of internal and external transactions (Johnson & Kaplan 1987). As a result, firms become more vulnerable to competition.
Given the limitations associated with the use of financial performance measures, it is important to use a combination of measures to assess firm performance (Kaplan & Norton 1996). These measures are discussed in the following sections.

2.5.2 Non-financial performance

A combination of financial and non-financial information is essential to give a more balanced impression of the overall performance of the firm (Hoque & James 2000; Laitinen 2002). The importance of integrating non-financial performance into a financial measures framework is well documented in the literature (Kaplan & Norton 1996; Murphy et al. 1996; Johnston et al. 2002; Franco-Santos et al. 2007). Non-financial performance measures can be defined as measures that provide performance information in non-monetary terms. These include design quality, product improvement (Laura et al. 1996), customer/market measures, operation measures, stakeholder development measures and preparation for the future measures (Maltz et al. 2003).

Some empirical studies indicate that non-financial measures are not intended replace financial measures but rather to complement them. For example, Venkatraman and Ramanujam (1986) postulated that a broader conceptualisation of firm performance would include operational measures in addition to indicators of financial measures. Such measures can be expressed in terms of market-share, new product introduction, product quality, marketing effectiveness, manufacturing value-added and other measures of technological efficiency within the domain of firm performance (Venkatraman & Ramanujam 1986). Kaplan and Norton (1992) introduced the Balanced Scorecard, specifically for private companies to facilitate their decisions away from the narrowly focused financial indicators. They retained financial indicators but complemented these with indicators from three other perspectives: those of the customer, the internal process, and learning and growth. It enables firms to track financial results while simultaneously
monitoring progress in building the capabilities and acquiring intangible assets they need for future growth (Kaplan & Norton 1996). Emmanuel and Otley (1985) argued that success depends not only on the achievement of financial measures, but also on how well a firm adapts to the environment within which it exists. Similarly, Franco-Santos et al. (2007) posited that operational business performance and strategic business performance complement each other and provide richer descriptions of success in SMEs.

Managing a firm’s performance requires measures that can capture its potential for long-term value creation (Chakravarthy 1986). Strategic performance is more of a futuristic measure. Zou and Cavusgil (2002) defined strategic performance as a firm’s efficiency in maintaining its market share and competitive position relative to major rivals. Scholars contend that a firm that sets no strategic objectives for its venture is less likely to make its business a long-term success (Cavusgil & Zou 1994). Although financial performance is the ultimate objective for many firms, strategic performance is a crucial intermediary gauge because it can lead to improved financial performance (Zou & Cavusgil 2002). For instance, Szymanski et al. (1993b) found a firm’s market share has been found to affect its profitability. Zou and Cavusgil (2002) found that the Global Marketing Strategy (GMS) influences a firm’s strategic performance positively in the global market. The GMS is also found to affect a firm’s global financial performance, both directly and indirectly through its effect on the firm’s global strategic performance.

Measures to assess the quality of a firm’s transformations (and not merely its outcomes) and the satisfaction of all its stakeholders (and not merely its stockholders) are shown to be important indicators of strategic performance (Chakravarthy 1986). In a similar vein, Rappaport (1981) posited that strategic measures would improve a firm’s prospects of creating value for its shareholders and thereby contribute to the long-term interests of the firm. The performance measures from a strategic perspective can be expressed in market
expansion, competitive response, gaining a foothold in foreign markets or increasing the awareness of the product/firm (Cavusgil & Zou 1994). Cavusgil and Zou captured four aspects of an export business’ performance that involves both strategic and economic considerations: (1) the extent to which the initial strategic goals of management was achieved; (2) the average annual growth rate of export sales over five years of the venture; (3) the overall profitability of exporting over five years of the venture, and (4) management’s perceived success of the venture.

Evidence demonstrates that there is no single measure that fully captures a firm’s performance (Venkatraman & Ramanujam 1986). Thus, in an attempt to be as comprehensive as possible, the present research utilises different aspects of firm performance that reflect both financial and strategic measures, consistent with previous studies (for example, Zou & Cavusgil 2002). Since the performance of firms may be subject to short-term (a year) fluctuations not representative of their long-term outcomes, firms are asked to indicate the average of their performance over the previous three-year period. This approach is thought to lessen the influence of short-term fluctuations (Samiee & Roth 1992). Four measures of strategic performance were employed: strategic position, competitiveness, market share and leadership position relative to major rivals (Porter, 1985, 1986; Zou & Cavusgil 2002). These measures could reveal whether a firm operates its transactions more efficaciously than other firms. At the same time, the traditional need for financial measures was not ignored. Three measures of financial performance were used: sales growth, profitability and return on investment relative to major rivals (Dess & Davis 1984; Samiee & Roth 1992; Zou & Cavusgil 2002). Scholars (Woo & Willard 1983; Chakravarthy 1986) postulated that profitability, return on investment, return on sales and market by book value, despite their numerous criticisms (Eccles & Pyburn 1992), were a set of necessary conditions for ‘excellence’ measures of financial performance (Chakravarthy 1986). Nonetheless, they are subject to bias due to
the limited time horizon, variance in the level of data aggregation across firms and departures from the actual purpose of such measures (McGuire et al. 1986). Thus, a variety of financial as well as strategic indicators have been employed to measure performance. These seven indicators are combined into a composite scale for measuring performance. From the functional viewpoint, the use of both measures can play a crucial role in providing a balanced picture of a firm’s performance. As such, it helps firms looking and moving forwards instead of backwards (Kaplan & Norton 1992).

2.5.3 Small and medium enterprises’ performance measures

Firms are heterogeneous in their resources and capabilities (Barney 1991) and as such, SMEs and large firms are likely to perform in quite different ways. The way in which performance measures are used in businesses can differ widely, depending on a number of other factors such as resource availability (time, cost, expertise, accounting and information systems) and the nature of agency issues faced by the firms (Perera & Baker 2007). Firm size has also been found to influence the nature and the degree of use of performance measures in the firms (Speckbacher et al. 2003). Analysis of performance measures has revealed some conflicting findings in business research. The trade-off of performance measures can be seen clearly in previous studies. While some research suggests that SMEs are less likely to use both financial and non-financial aspects of firm performance, other studies suggest that they acquire more comprehensive measures in such firms.

For example, in a study by Malina and Selto (2004), attributes associated with financial criteria appeared to be more influential in and beneficial to large firms than those associated with non-financial criteria. Although, these firms used both financial and non-financial measures for measuring performance, making decisions and formulating strategies, they tend to emphasise the financial variables as those are easily obtained,
relatively accurate and objective (Malina & Selto 2004). On the other hand, Hoque and James (2000) contended that the combined use of financial and non-financial measures is positively associated with larger firms. They argued that such firms are more complex and deal with an increased number of stakeholders and so they are likely to use multiple measures of firm performance. Similarly, Speckbacher et al. (2003) found that larger firms are more likely to implement multidimensional performances that combine financial and non-financial measures to describe their strategies by a cause-and-effect logic, which is linked to the reward system.

Arguably, evidence suggests that small firms emphasise both financial and non-financial variables to measure their performance. For example, Laitinen and Chong (2006) found that small companies in Finland and UK gave a lot of attention to financial performance measures in addition to customer satisfaction as a non-financial measure. This evidence supported an earlier study by Davig et al. (2004). Interestingly, small firms that used non-financial performance measures such as measures of quality, customer satisfaction and employee development are likely to perform somewhat better than those concentrating only on financial measures (Davig et al. 2004). Conversely, some research posits that SMEs are less likely to develop and implement multidimensional performance measures. Time and resource constraints were evident as the main factors that inhibited effective use of both measures (Perera & Baker 2007). For example, Basuony (2014) posited that SMEs are likely to place greater emphasis on financial measures in their performance measures. Also, Hvolby and Thorstenson (2001) indicated that financial measures are more likely to appeal to SMEs because such measures are easily accessible at a minimum cost and effort, and basically rely on readily provided information in their financial accounting systems. Similarly, Perera and Baker (2007) found that SMEs in general make greater use of financial than non-financial measures of performance. Furthermore, the level of pressures SMEs face appears to be very different from those
encountered by large firms as the latter need to meet the requirements and expectations of different stakeholders. Thus, the overall financial performance is apparently the major concern in SMEs. Additionally, even when such businesses benefit from having control measures that are typically effective in larger firms, implementing those measures can be problematic due to limited resources and time that they possess (Perera & Baker 2007). However, other scholars (Phillips et al. 2003; Gumbus & Lussier 2006) believe there is a need to adopt both measures in SMEs, and that to succeed in the contemporary business environment, firms need to monitor and manage their performance in a number of dimensions (Perera & Baker 2007).

It can be expected that SMEs’ measures of performance differ from those employed in larger firms due to the distinct characteristics and unique features of SMEs, (Marriot & Marriot 2000). The selection of performance measures of small businesses is indeed a crucial process (Murphy et al. 1996). Therefore, there is a need to use relevant performance measures for SMEs. In the present research, firm performance is examined from the perspective of the SMEs. Presumably, firm performance in the SME sector is closely linked to its ability to use their resources systematically in order to produce outcomes that are consistent with their objectives and relevant to the user’s interests.

2.5.4 Subjective measures

While a firm’s performance can be measured using financial measures, non-financial measures or both, a further concern in its operation is the sources of data. The sources of performance data have either been objective or subjective (Venkatraman & Ramanujam 1986; Murphy et al. 1996). The former is based on independent observable facts, either by asking respondents to report absolute values or by accessing secondary sources (Vorhies & Morgan 2003). Meanwhile, the latter is based on opinion or estimates provided by respondents who are asked to assess their firm’s performance (Covin et al.
In other words, subjective measures usually include data collected directly from firms, whereas objective measures can be related to data from publicly available records. Determining data sources as either subjective or objective is problematic as all sources (including archival) have some degree of subjectivity (Murphy et al. 1996). Research from Dess and Robinsson (1984) showed that subjective data could be equally adequate as objective data regarding performance measurement as well.

There are positively high correlations between subjective and objective firm performance measures (Dawes 1999; Wall et al. 2004; Song et al. 2005; Gruber et al. 2010) that support their validity (Dess & Robinson 1984). While research suggests that subjective measures are the best alternative to objective measures in assessing firms’ performances, the equivalence assumptions are still being debated.

One of the advantages of using subjective measures is that they are cost-effective: data can be collected through questionnaires or interview surveys that simultaneously elicit information on practices (Wall et al. 2004). In addition, subjective measures can be an effective way to assess firm performance since they allow comparisons across firms and contexts such as across particular industries, cultures, time horizons, economic conditions and expectations of parent firms (Dawes 1999; Song et al. 2005). The relative performance of other industries can be taken into account as a benchmark when measuring the firm's performance. Furthermore, Sapienza et al. (1988) argued that the use of subjective measures would be extremely useful for several reasons: it provides insights into the way firms rate themselves, it draws attention to important intangibles, and it allows for flexibility to make adjustments such as control for measurements typically used with more specific financial indicators (Wall et al. 2004). Indeed, using subjective performance measures relative to objective measures can measure their manipulation of performance outcomes that frequently cannot be obtained using
objective measures. Most importantly, subjective measures are likely to focus on overall performance, so the measures provide more complete information (Covin & Slevin 1989), whereas objective measurements consider strategic or intangible aspects such as competitiveness, strategic position and leadership position.

Objective measures, in contrast, are often problematic due to non-availability and non-homogeneity of data (Bracker & Pearson 1986). Dess and Robinson (1984) warn that subjective measures should not be interpreted as convenient substitutes for objective measures of a firm's financial performance. Although objective measures would be preferred, their findings suggested that a subjective perceptual measure should only be used when access to performance data is severely restricted. Researchers investigating small firms are frequently confronted with an inability to obtain objective performance measures (Dess & Robinson 1984). Many firms preferred subjective to objective measures because the latter are often confidential (Song et al. 2005) in order to protect them from public scrutiny (Sapienza et al. 1988; Gruber et al. 2010). They are often very reluctant to publicly release their actual financial performances (Dess & Robinson 1984; Murphy et al. 1996). The more fundamental reason is that, for many small firms, there are no appropriate financial records (Wall et al. 2004). Even if access to such data is obtained, there is a greater risk of error attributable to varying accounting procedures in these firms (Dess & Robinson 1984). Objective performance measures can also vary considerably across industries, obscuring any relationship between the independent variables and firm performance (as a dependent variable) (Dawes 1999). Essentially, the data can be aggregated in a way that is not compatible with the level of analysis or practices of interest (Wall et al. 2004). Scholars (Sapienza et al. 1988; Dawes 1999) have postulated that objective measures often do not accurately indicate the underlying financial health of a firm as they report obscured or manipulated performance outcomes, for a variety of reasons. For example, they may understate earnings to avoid paying both
corporate and personal income taxes (Dess & Robinson 1984; Sapienza et al. 1988; Gruber et al. 2010).

Subjective measurements are preferred: not only is it an approach that is frequently used by studies but it often attracts high response rates (Kalmi & Sweins 2010). Using subjective performance measures have some significant potential benefits, but they also have some costs and risks. Arguably, subjectivity has the potential of functioning well only if the respondents make informed, unbiased and fair judgments. Such data may not always be completely truthful (Zikmund & Babin 2007). While there is evidence supporting the reliability of subjective performance measures (for example, Dess & Robinson 1984; Venkatraman & Ramanujam 1987), subjectively measuring performance creates a potential reporting bias against finding significant effects (Ittner et al. 2003a; Song et al. 2005; Bol 2009).

Zulkifli (2014) provides a critical literature analysis on how subjective measures can be used to evaluate performance, specifically for SMEs. Interestingly, the study demonstrates that the use of subjective performance measures is accurate, and thus research involving SMEs using such measures is shown to become more necessary. There is clear evidence that the subjective measures would lead to different conclusions concerning relationships with other variables than would using the objective measures (Wall et al. 2004). The choice of subjective measures should not be weighed as a second-best alternative to objective measures (Venkatraman & Ramanujam 1987; Wall et al. 2004). Sapienza et al. (1988) contended that subjective measures serve as an effective substitute if the research topics cannot be comprehensively addressed when firms refuse to provide such data.
Following prior studies, the present research has self-administered measures of performance. Subjective performance measures have been widely used in research on learning orientation and its presumed link to firm performance: for example; Baker and Sinkula (1999), Nasution et al. (2011) and Mahmood and Hanafi (2013). Past studies have used such measures due to consistent evidence that subjective and objective measures of performance are highly correlated (Dess & Robinson 1984). The present research employed subjective measures in assessing firms’ financial and strategic performances. Both measures are adapted from an instrument developed by Zou and Cavusgil (2002).

2.6 **Chief Financial Officer (CFO)**

A CFO primarily represents the highest position level of financial management service in firms. Continuing global economic and financial uncertainty has undoubtedly influenced the importance of CFO in firms. They occupy a very viable and critical role in their firms’ success (Jorgensen 2001) as they are responsible for all financial tasks in their firm. They are the heart of a firm’s ability to deliver accurate financial records, produce insightful information for decision-making and to meet regulatory requirements. The most typical CFO role is still that of overseeing accounting policies and internal control processes, assessing potential business risks and assisting the firm with adequate planning and establishing policies to prevent fraud (Klein 2002a; Thornton 2010; Matsunaga et al. 2013). Moreover, a CFO is the single most important superior officer owing to his or her specific role of maximising the interest of stakeholders (Cannella et al. 2008; Dokko et al. 2009).

Considerable attention has been paid to the roles of the CFO, elevating their power and importance beyond that of other executives. Firms are “taking a hard look at the
recruitment and oversight of CFOs since the collapse of Enron Corporation was linked to the man who steered its accounting practices” (Yung 2002, p. 1H). The SOX Act of 2002 might also have contributed to the rise of the CFO’s relative importance. The Act specifically requires the CFO and CEO to be financial experts in the hope of improving internal control over financial reporting and thus protecting stakeholders from managerial malpractice.

While most previous studies have focused on the CEO (for example, Carpenter et al. 2004; Finkelstein et al. 2009), scholars have recently begun to examine top executives other than the CEO (Menz 2012). Collectively, a significant part of the functional executive’s role comprises strategic decision-making and leadership, not just to be the head of an organisational function. The present research focuses upon CFOs as the research in this context is still relatively sparse (Menz 2012). Technically, different functional top officers bring different influences due to differences in the type and scope of their technical capabilities (Menz 2012). Perhaps more than any other decision-maker, the CFO is circumspect about changes in business processes (Calnan 2001). The CFO can play a crucial role in the performance of a firm, since they have the best understanding of a firm's fiscal performance and how firms should grow (Vames 1998). May (2001, p.12) noted, “CFOs are some of the most misunderstood people on the planet. Somewhere along the way, they got mistaken for accountants”. Since, the role of the CFO continues to evolve (Moriarty 2001), so does the value of the role and the need to evaluate those values in the firm.

Previously, firms were able to perform better by simply having a CFO who had the right technical skill set (Thornton 2014). Many CFOs are expected to know about finance and be able to report financial results accurately and in a timely way (Goldstein 1997). Other skills, such as risk management practices (Klein 2002a) were not as essential.
Nevertheless, the role of the CFO has changed dramatically in recent years and the metamorphosis is set to continue as the CFO function increases in importance (Bruce 2002). Their responsibilities are said to be increasingly fluid (Li et al. 2010; Sharma & Jones 2010; Corson & Miyagawa 2011; Wank 2014). The evolving responsibilities of the CFO include but are not limited to formulating financial decisions and also managerial decision and investment decisions (Copeland et al. 2004). This new role of the CFO is breaking the perceptual barrier that the role of a CFO is simply accounting (D’Arcy 1996). They have to understand the business intimately and be an equal partner with the business manager (Goldstein 1997). New challenges to a CFO requires them to spend less time on financial tabulations and reporting, and more time adding value to the firm through analyses (Randall 1999). Not only do they serve as a key decision maker in crafting the company’s strategy (Barton et al. 2001) but also share the role of protector of the firm’s assets (International Federation of Accountants 2013). Indeed, they must remain proactive in managing their role to remain at a high level of capability and competence, thus ensuring the viability and competitive advantage of the firms that they serve.

2.7 Small and Medium Enterprises (SMEs)

According to the Department of Foreign Affairs and Trade, the Australian economy has grown tremendously in recent years and has been one of the fastest growing regions in the world. SMEs are predominant in the country’s economy, including in terms of employment, but their full potential remains remarkably untapped (Organisation for Economic Cooperation and Development 2005). The Australian Association of Independent Businesses was launched in 1977 as the first Small Business association (Ahmad & Halim 2012). In 1988, the Australian Bureau of Statistics (ABS) first released a range of statistics about Small Business in Australia. The interest in, and
significance of, this sector continues to be recognised along with an increasing interest in other business size categories. By 2000, the ABS released SME statistics. This publication presents data from a number of different SMEs and external sources to provide a range of information with a focus on small businesses but also providing comparisons with other business size categories.

There is no single, uniformly acceptable definition of a SME (Organisation for Economic Cooperation and Development 2005). The characteristics for defining the size of SMEs vary across countries. This includes turnover, assets, employment numbers, and management characteristics (Lee & McGuiggen 2008). Nevertheless, the main criterion that most countries use for statistical purposes is the number of persons employed. According to Organisation for Economic Cooperation and Development (2005), in the European Union, the most frequent upper limit designating an SME is 250 employees. However, some countries such as in Australia, they set the limit at 200 employees (Australian Bureau of Statistics 2002), while the United States considers SMEs to include firms with fewer than 500 employees (Organisation for Economic Cooperation and Development 2011). Financial assets are also used to define SMEs. For example, in the European Union, the turnover of medium-sized enterprises should not exceed EUR 50 million and small enterprises should not exceed EUR 10 million (Organisation for Economic Cooperation and Development 2005). Alternatively, balance sheets for medium and small enterprises should not exceed EUR 43 million and EUR 10 million, respectively (Organisation for Economic Cooperation and Development 2005).

In this research, the ABS definition of SMEs is used to identify Australian SMEs. The ABS (2002) defines SMEs as non-agricultural businesses employing 5 or more, but fewer than 200 people. This research uses that definition and the following three criteria must also hold true: (a) independent ownership and operations; (b) close control by
owners/managers who also contribute most, if not all the operating capital, and (c) principal decision-making by the owners/managers (Australian Bureau of Statistics 2002).

SMEs play a vital role in the Australian economy. SMEs constitute a significant part of the Australian economy and their contribution is widely recognised (Perera & Baker 2007). SMEs have long been acknowledged as a key source to the economy in terms of their considerable contribution to Gross Domestic Product (GDP) and employment creation (Hall, 1995). They represented around 2 million businesses actively trading in June 2007 (Australian Bureau of Statistics 2010), comprising more than 95% of all businesses in Australia. According to Telstra (2007) in SME Trends and Achievements Report, they are the most significant employer, providing 42% or 4.1 million of Australia’s private sector jobs, which contributed approximately 46% or $426 billion of the Australia’s domestic production as measured by GDP in 2006. As such, the SME sector has always been the engine room of an economy (Organisation for Economic Cooperation and Development 2000). SMEs are significant contributors to the wealth of the Australian economy as highly flexible and responsive suppliers to larger firms, customers of larger firms, and as suppliers to end-use customers in their own right (Abdullah & Beal 2003; Ergas & Orr 2007). More than half of all businesses reported SMEs as the main supplier of goods or services (Australian Bureau of Statistics 2009). Additionally, their location and ongoing expansion throughout the broader community enhance regional development and create more equitable income distribution (Abdullah & Beal 2003). This once again speaks in favour of the important role SMEs play in the economic development of the country (Ahmad et al. 2011).

Australian SMEs was undertaken in previous studies. For example, Perera and Baker (2007) examine the use of financial and non-financial performance measures in small and
medium size manufacturing enterprises in Australia. The study found that SMEs in Australia make greater use of financial than non-financial measures of performance. Specifically, non-owner managed firms make greater use of formal measurement systems than owner-managed firms. The study by Drever and Hutchinson (2007) was also set on SMEs in Australia. They made use of data from the Business Longitudinal Survey carried out by the Australian Bureau of Statistics. These data were used to test hypotheses about the effects of demographic, owner-manager and financial variables on Australian SME liquidity. In a recent study of Australian firms, Tan et al. (2014) find that job-related human resource practices and organisational climate fully mediate relationships between transformational leadership and learning orientation. The study investigates drivers of learning orientation in 253 Australian fast-growth SMEs through an examination of the interrelationships between transformational leadership, human resource practices, and organisational climate. The study argues that there appears to be a dearth of marketing literature on Australian SMEs.

SMEs face a number of challenges and many find it difficult to survive. In fact, the number of SMEs, which face this survival challenge, is growing, despite policies and programmes established by government to help SMEs. In terms of business survival rates, of the 2,050,642 businesses operating in June 2009, 87% were still operating in June 2010 but this reduced to 63% in June 2013 (Australian Bureau of Statistics 2010). The high failure rate means that SMEs face a very pressing survival challenge.

The Global Financial Crisis (GFC) has affected all sectors in economies to some extent. Apparently, the financial crisis has adversely affected most SMEs, reducing the development rate and increasing the number of bankruptcies (Hodorogel 2009). They are considered the most sensitive and most easily affected by the economic climate and are among the first to be hit by the effects of the world financial crisis (Hodorogel 2009). A
survey by the Carbon Down Evaluation Report (2011) showed that the Australian SME engine was stalling with many businesses under severe financial distress. Research conducted by Telstra Business and Council of Small Business of Australia (2011) showed more than half of all Australian small businesses think the economy is in worse shape. Furthermore, the research showed that less than half of businesses expect their sales to grow and their health of financial position has dropped since 2010.

Starting and operating SMEs are likely to face common problems that impair their survival and performance. It is not uncommon to find SMEs having financial difficulties (Drever & Hutchinson 2007) and they are struggling to make ends meet. This is largely because they have insufficient capitalisation and resources (Reiss 2006) and often the expertise to be alert to the myriad of economic change that affects them on ongoing basis. Research findings suggest that over half of small businesses fail within the first five years of starting (Reiss 2006). In Australia, a failure rate of 23% has been reported (Watson, 2003). According to Gilmore et al. (2004), the key situations deemed to be risky to small businesses are those pertaining to cash flow, company size, entering new markets or new areas of business, and entrusting staff with responsibilities. Among the biggest problems and the largest factor that contributes to their vulnerability and failure are lack of planning, inadequate financing and poor management (Longenecker et al. 2006; Reiss 2006). These have precluded their development and reduced their solvency. Lack of financial literacy skill has also been identified as one of the most serious constraints facing SMEs and hindering their sustainability (Halabi et al. 2010; Andoh & Nunoo 2011).

SMEs exhibit characteristics that differentiate them from most of their larger counterparts (Storey 1994). There appears to be a disproportionately greater number of financial failures of small firms relative to those for larger enterprises (Storey 1994).
Thus, they face higher interest rates on credit due to their high vulnerability of these businesses (KPMG 2003).

The present research examines SMEs because they have an important role in the national economy. This sector is too important to the Australian economy (Certified Public Accountant Australia/Certified General Accountants-Canada 2010) for it to remain unaddressed. Having survived the difficult and uncertain start-up years, small firms are often reluctant to involve themselves in activities that may jeopardise the relative security that they have worked so hard to attain (Gilmore et al. 2004). However, having a high level of financial resources, learning orientation and CFO experience, it is argued, will help them to meet challenges and enhance their performance. Operating in such a financially distressed environment, financial resources, learning orientation and CFO experience can be the most desirable resources. If these assets are in ample supply, they might eventually overcome their financial difficulties.
2.8 Summary

This literature review examines, synthesises and integrates research relating to financial resources, learning orientation, CFO experience and firm performance. Below is a summary of the variables and relevant concepts discussed in this chapter.

Financial literacy has received growing attention in the developed world and, recently, in emerging markets as a critical determinant of one’s well-being (West & Worthington 2012). Efforts to deepen financial literacy so far have been concentrated on individual well-being. Generally, it helps people to manage their financial affairs and improve their standard of living. However, financial knowledge and capabilities may also make an important contribution to a firm’s performance. No study has yet been devoted to understanding financial knowledge and capabilities at the firm level. Based on previous studies, one of the problems faced by businesses is a lack of financial knowledge and capabilities. This lack has been found to be important for businesses and is a major impediment to a firm’s success, suggesting a greater need for careful attention to financial resources. Over the past several decades, the financial world has become increasingly sophisticated and complex. Not only must SMEs take more responsibility for their own well-being, but they must also navigate economic volatility, manage risk and predict future market needs. Increasing their financial resources may have a direct effect on the financial and strategic performance of the firm. The importance of financial knowledge and capabilities in economic behaviour has been well documented. It seems clear that there are likely to be important benefits of greater financial knowledge and capabilities, including savvier saving and investment decisions, better debt management and planning, higher participation in the stock market and greater wealth accumulation (Lusardi & Mitchell 2014). It is predicted that a firm with a higher financial resources will have a greater influence on its performance. Having a high level of financial resources would be a strong basis for strategic decision-making and for the survival of
any firm. Specifically, SMEs will need to be armed with high levels of education, financial knowledge, financial attitude towards risk taking and financial awareness of financial reports to make sound decisions and thus improved performance.

Firm performance can also be linked to the firm’s learning orientation and CFO experience. Most of the literature has devoted significant attention to exploring the impact of learning orientation on innovation capability. Few studies have investigated the relationship between learning orientation and firm performance. The present research attempts to fill the existing research gap by exploring the impact of learning orientation on performances by Australian SMEs. Learning orientation, it has been argued, is pre-eminent over other resources because it enables firms to maintain long-term competitive advantages by continuously improving their long-held practices and knowledge at a faster rate than rivals do (Dickson 1996; Slater & Narver 1995).

Increasing complexity and uncertainty in the competitive landscape have made it difficult for firms to rely merely on the capabilities of their CEOs (Thorsell & Isaksson 2014). Instead, it is the combined capacity of other top executives that influences success (Carpenter et al. 2004). The financial experience of CFOs is one of many factors that may ultimately impact on firm performance. Presumably, firms with more experienced CFOs may find it easier to manage the financial complexities associated with their performance. Scholars (Carpenter & Westphal 2001; Ibicioglu et al. 2010; Kroll et al. 2008; Thorsell & Isaksson 2014) support the contention that technical experience is an important conditioning factor that influences performance. The greater experience can enhance management’s ability to monitor performance (Hillman & Dalziel 2003). The present research likewise considers the possession of adequate technical knowledge through CFO experience may be important in influencing performance. Such influences may be in the form of superior financial direction and guidance. The impact of learning
orientation and CFO experience on performance may represent extensions of the literature of both scholarly and practical significance.

Measuring performance is essential to monitoring operational activities (Zulkifflı 2014), to assess where firms stand vis-à-vis their rivals and how they evolve and perform over time (Australian Bureau of Statistics 2010; Richard et al. 2009). Evidence demonstrates that there is no single measure that fully captures a firm’s performance (Venkatraman & Ramanujam 1986). Effectively, performance measures should embrace both financial and non-financial indicators that are relevant for the establishment of a firm and as a basis for their usefulness in improving performance (Kaplan & Norton 1996; Laitinen 2002). A combination of financial and non-financial information is essential to give a more balanced impression of overall performance (Hoque & James 2000; Laitinen 2002). Thus, in an attempt to be as comprehensive as possible, the present research utilises different aspects of firm performance that reflect both financial and strategic measures.

This research highlights the need for financial resources, learning orientation and CFO experience among SMEs in order to be able to operate and sustain in today’s complex market environment. It is hoped that this research serves as a starting point for firms, particularly SMEs that strive to implement sound strategies to increase their financial and strategic health.

The following chapter discusses the theoretical framework of the research.
3.1 Introduction

The main objective of this chapter is to describe the development of the theoretical framework of this research. Section 3.2 discusses the relevant theories that are the foundation of the research framework. Section 3.3 presents the research framework with the definitions of all the variables. Section 3.4 discusses the development of the hypotheses and presents evidence from the literature review to support the hypotheses. Finally, the chapter is summarised in Section 3.5.

3.2 Theoretical Foundation of the Research

To develop a conceptually rigorous and parsimonious model of financial resources, learning orientation, Chief Financial Officer (CFO) experience and firm performance, the research draws on the Resource Based View (RBV) and Knowledge Based View (KBV) theory.

3.2.1 Resource Based View (RBV) theory

Resource-based view (RBV) of the firm has become one of the most widely used theoretical frameworks in the management literature (Runyan et. al. 2006). The theory receives much attention in explaining the differences in firm performance (Barney 1991; Hoopes et al. 2003; Newbert 2007). The RBV emphasises the value of focusing on firms’ specific resources rather than on their products (Wernerfelt 1984). Firm resources play a crucial role in assisting a firm to have better performance. Within the RBV theory, firm’s resources can be defined as bundle of tangible and intangible assets, which are tied semi-
permanently to the firm (Wernerfelt 1984). Barney (1991, p.101) referring to Daft (1983) says: “...firm resources include all assets, capabilities, organisational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness”.

From a business’s strategic perspective, firm resources can be categorised into physical, human and organisational capital resources and financial resources (Wernerfelt 1984; Barney 1991, 1995). Physical capital resources include the physical technology, plant and equipment, geographic location and its access to raw materials. Human capital resources involve training, experience, intelligence, relationships, and understandings of individual managers and workers in a firm. Organisational capital resources include formal reporting structure, formal and informal planning, controlling and coordinating system, as well as informal relation within a firm and those in its environment. Financial resources include debt, equity and retained earnings of a firm (Barney 1995). Other scholar categorises firm resources into tangible assets (fixed and current assets), intangible assets (intellectual property) and capabilities (encompassing skills of individuals and groups, organisational routines and interactions) (Dess et al. 2007; Fahy & Smithee 1999; Pearce & Robinson 2007; Thompson et al. 2007). Tangible assets are the physical and financial means that a company uses to provide value to its customers (Dess et al. 2007; Pearce & Robinson 2007). They include production facilities, raw materials, financial resources, real estate and computers. Tangible resources have been claimed to be relatively weak sources of competitive advantage and economic growth because they are comparatively easy to imitate by rivals (Fahy 2002; Grant 1991). Contrarily, intangible resources include those soft resources, which mainly consist of knowledge or information such as human capital, organisational capital, technological capital, relational capital (Fernández et al. 2000) and brands (Fahy & Smithee 1999). Intangible assets appear to have a greater impact on a firm’s superior performance than
tangible assets (Galbreath 2005). Intangible resources are considered to be more important sources of heterogeneity of performance because they are less visible and invoke relatively high barriers to understand, purchase, imitate and substitute for (Hoskisson et al. 2008). Organisational capabilities encompass the skills of individuals and groups and organisational routines and interactions (Fahy & Smithee 1999). Such resources are crucial in devising strategies that lead to sustainable firm performance (Barney 1991).

Nevertheless, RBV claims that not all resources of a firm can strategically lead to a firm’s sustainable competitive advantage and above-normal returns. This theory argues that a firm’s sustainable competitive advantages and superior performance are reached by virtue of unique resources being heterogeneous and immobile (Barney 1991; Galbreath 2005). RBV posits that a firm achieves competitive advantage by leveraging their idiosyncratic bundles of resources. Such resources must not perfectly mobile, at least in short-run (Barney 1991; Galbreath 2005). Thus, competitors are unable to replicate the benefits of the firm’s strategy in which makes a firm uniquely capable of sustaining competitive advantage and performance.

RBV provides an explanation of performance differences among competing firms. The theory suggests that a firm will only be able to achieve super normal profits from acquiring strategic resources that have specific attributes. Four empirical indicators of the potential of firm resources to create sustained competitive advantage, it must be: valuable, in the sense that it exploits opportunities and/or neutralises threats in a firm’s environment; rare among a firm’s current and potential competition; imperfectly imitable (history dependent, causal ambiguity and social complexity); and without strategically equivalent substitutes (Barney, 1991). The sustained competitive advantage will be reflected in above normal economic performance (Barney, 1991; Galbreath, 2005).
In summary, the RBV theory sees broadly defined resources as key to gaining and sustaining a competitive advantage as well to drive superior firm performance. The theory relies on tangible and intangible resources that must be heterogeneous and immobile and have valuable, are rare, imperfectly imitable and non-substitutability attributes to become strategic resources that provide competitive advantage for a firm, hence, could improve their performance (Barney, 1991).

Figure 3.1 shows the resource based view model of the firm (Hoskisson et al. 2008). A firm can earn above average returns by identifying the potential of its resources and capabilities for competitive advantage. The firm can then locate an attractive industry with opportunities that it can exploit by using its resources and capabilities. Finally, a strategy that best allows the firm to utilise its resources and capabilities relative to opportunities in the external environment can be developed (Hoskisson et al. 2008).

Previous studies have also postulated different definitions and views of capabilities and competencies, and whether these generate sustainable competitive advantage. There is a key distinction between capabilities and competences. Capabilities are described as “complex bundles of skills and accumulated knowledge, exercised through organisational practice” (Day 1994, p. 38), whereas competences are the firm-specific technologies and production related skills (Marino 1996). A superior performance is not only influenced by the possession of better resources and capabilities, but also their distinctive competences (Penrose 1959).
The RBV of the firm provides a promising theoretical foundation to facilitate the sustainability of firm performance. The RBV posits that a firm can enhance performance through amassing and utilising strategic resources and capabilities (Barney 1991). The present research argues that financial resources, learning orientation and CFO experience are an important bundle of intangible resources and capabilities that can be the source of a sustainable competitive advantage. In fact, it can be argued that financial resources, learning orientation and CFO experience may have the greatest ability of all resources to serve as a source of sustainable differentiation, due to both their relative immobility (McEvily & Chakravarthy 2002) and wide applicability (Miller & Shamsie 1996). These resources are difficult to formalise, articulate, and transfer between organisational contexts (Nonaka & Takeuchi 1995). Such attributes are consistent with the RBV’s requirements of being valuable, rare and inimitable in order to provide a sustainable firm
performance. They will facilitate the firms that have them to higher degrees to make and implement well strategies that are more likely to be consistent with demands in the market. Without such resources, firms may be less able to recognise solutions to business needs and to formulate effective strategies to improve firm performance.

Thus, the present research puts forward as foundational the argument that financial resources, learning orientation and CFO experience of the firm are very important to building distinctive capabilities and core competences. A firm that possesses strong financial resources, learning orientation and CFO experience stands a good chance of making sustaining high returns.

3.2.2 Knowledge Based View (KBV) theory

Penrose's (1959) seminal work on a theory of the growth of the firm is an important starting point for understanding of resource-based thinking, where emphasis is put on the importance of resources and its implications for firm performance (Conner 1991). In 1984, Wernerfelt defined a firm’s resources as tangible and intangible assets that are tied semi-permanently to the firm to develop a competitive advantage in implementing product-market strategy. This view was named as the RBV. Later, Barney (1991) developed a solid foundation about strategic factor markets and the role of resources in generating sustainable competitive advantage. Recently, the field has produced a significant alternative view, theorising knowledge as the most strategically important of the firm’s resources (Grant 1996; Nonaka & Takeuchi 1995). The KBV of a firm is an extension of the RBV (Decarolis & Deeds 1999; Grant 1996; Hoskisson et al. 1999; Kogut & Zander 1992).

The clear difference between the RBV of the firm and the KBV of the firm, if there is any, is that the KBV focuses primarily on intangible resources. Itami (1987) enunciates
that a firm's ability to create value is not largely based on its financial or physical assets, but instead is produced from its sets of intangible, knowledge-based resources. This theory provides a new lens through emphasising the ability to acquire, integrate, store, share, and apply knowledge for developing and sustaining competitive advantage (Grant 1996).

Another difference between the RBV and the KBV is that the former sees knowledge as a generic resource, rather than having special properties, in the context of providing a competitive advantage (Barney 1991; Grant 1991). Consequently, it does not make any distinction between different types of knowledge-based capabilities (Kaplan et al. 2001). On the other hand, the latter considers knowledge to be the most strategic resource that forms the basis for a sustainable competitive advantage (Grant 1996; Zack 1999). The KBV theorists argue that knowledge-based resources are hardly to imitate, socially complex and heterogeneous, thus facilitating sustainable differentiation (Grant 1996; Wiklund & Shepherd 2003). The RBV theorists agree these determinants are important in creating sustained competitive advantage. Accordingly, a firm with better knowledge-based resources and competitive capabilities, will not only build up a basis for competitive advantage (Peteraf 1993), but also increase firm performance (McGrath et al. 1996).

While, the RBV recognises the transferability of a firm’s resources and capabilities as a critical determinant of their capacity to confer sustainable competitive advantage (Barney 1986), the KBV argues that the issue of transferability is important not only between firms, but even more critically within the firm, particularly with regards to knowledge (Grant 1996).
Given assumptions about the characteristics of knowledge and the knowledge requirements of production, a firm is conceptualised as an institution for integrating knowledge (Grant 1996). The KBV views a firm as a repository of capabilities in integrating the specialist knowledge of their members (Kogut & Zander 1992; Hedlund 1994; Grant 1996). In contrast to earlier literature, knowledge is viewed as residing within the individual, and the primary role of the firm is knowledge application rather than knowledge creation (Kogut & Zander 1992; Nonaka & Takeuchi 1995; Grant 1996). The emphasis upon the role of the individual as the primary actor in knowledge creation and the principal repository of knowledge is crucial to piercing the veil of firm knowledge and clarifying the role of firms in creating the application of knowledge (Hedlund 1994; Grant 1996). It is the stability of these relationships that identify the characteristics of inertia in a firm’s capabilities (Kogut & Zander 1992; Grant 1996).

Another important difference between this knowledge-based analysis and other organisational theories is the emphasis that the knowledge-based view gives to the firm as an institution for the production of goods and services (Grant 1996a). Sociology-based theories of organisations incline to analyse firm as institutions for collective social action without distinguishing economic organisations, from those, which exist for social, political and religious, ends (Grant 1996a). The KBV considers knowledge as the most critical input in production and the primary source of value that forms the basis for a sustainable competitive advantage (Kogut & Zander 1992; Grant 1996a; Raft & Lord 2002), and thus that, as noted by Nonaka (1991 p. 162), “the only true lasting competitive advantage is knowledge”.

In the KBV, analysis of capabilities has integrated social, human and organisational resources next to technical and economic resources, for understanding the variation in firm performance and growth (Kogut & Zander 1992). Socially complex knowledge
Peter 1993; Raft & Lord 2002), “can provide sources of competitive advantage because it depends on the unique interrelationships between people, routines, and technologies that are highly inimitable” (Lei et al. 1996, p. 552). In the KBV, firms that possess value-creating firm knowledge that is relatively rare or idiosyncratic with imperfect substitutability stand a good chance of generating and sustaining above normal returns (Raft & Lord 2002).

According to Zack (1999), competing successfully on knowledge involves either aligning strategy to what the firm knows or increasing the knowledge and capabilities needed to support a preferred strategy. The author posits that a firm must not only strategically weigh their knowledge resources and capabilities, but they need to broadly intellectualise their knowledge strategy to clear any gaps. A firm’s knowledge strategy should then be transformed into a firm to support knowledge creation, management and utilisation processes for filling those gaps (Zack 1999). This process is outlined in Figure 3.2.

![Figure 3.2: Knowledge Gap and Strategic Gap](source: Adopted from Zack (1999, p. 135).)
KBV theory on financial resources, learning orientation, CFO experience and firm performance

The KBV of a firm has received increased attention as the basis to gain a competitive edge and improve firm performance (Grant 1996). This view lies primarily in the ability of a firm to integrate individual specialised knowledge as well as firm knowledge and apply it into goods and services (Grant 1996; Kogut & Zander 1992; Nonaka & Takeuchi 1995). Collective and tacit organisational knowledge, hence, is seen as the key source of economic rents in KBV theory (Grant 1996; Spender 1994). To transform a short-run competitive advantage into a sustained competitive advantage requires that these resources are socially complex and heterogeneous (Barney 1991; Peter 1993; Raft & Lord 2002). Effectively, this translates into valuable resources that are neither perfectly imitable nor substitutable that competitors cannot easily replicate them (Barney 1991; Nonaka et al. 2006). If these conditions hold, the bundle of knowledge-based resources can increase the firm’s competitive advantage and make above-average profits.

The KBV serves as the overarching theoretical framework of this research. Apart from knowledge capabilities, human experience could also contribute to the knowledge base of the firm (von Krogh & Grand 2002). In the same sense, financial resources, learning orientation and CFO experience can be seen as the intangible resources and capabilities in a knowledge-based formulation that may determine the success of the firm. Such resources cannot be easily imitated and transferred, as they are deeply embedded in the fabric of the firm. Financial resources, learning orientation and CFO experience can then be viewed as strategic resources to the firm performance. They may represent an integrated set of resources for firm to take advantage of skill and expertise to shape their knowledge base. These knowledge resources can play a crucial role in the firm, contributing to the sustained performance.
Superior performance of firms also depends on the ability of the firms to create knowledge-based added value (Kubr 2002). By combining high financial resources, learning orientation and CFO experience, firms can constantly create new added value. A greater knowledge base can be related to higher strategic flexibility and faster reaction to environment changes (Grant 1996b). Prior studies (Bontis et al. 2000; Carmeli & Tishler 2004) show the existence of a significant positive relationship between intellectual capital and firm performance. Accordingly, a firm should value the importance of financial resources, learning orientation and CFO experience and its strategic roles to increase the knowledge capabilities of the firm. Those who lack such resources and capabilities will find it difficult to make informed decisions and strategies that ultimately impact firm performance.

All in all, the extent to which a capability is distinctive depends upon the firm creating, acquiring, capturing and deploying all necessary generic and specific knowledge that will generate a competitive advantage (Penrose 1959; Barney 1991). Therefore, the level of financial resources, learning orientation and CFO experience can be seen as both representing and being vital components of the human and strategic resources as well as competitive capabilities of the firm (Hult et al. 2003; Jappelli & Padula 2011; Lusardi & Mitchell 2009). The combination of these unique resources and capabilities represent sources of a firm’s core competencies and an important basis for achieving superior firm performance.

3.3 Research Framework

The research framework developed in this research was driven by a RBV and KBV as the foundation for the theoretical reasoning. These theories suggest that level of financial
resources, learning orientation and CFO experience could be important predictors for firm performance.

Financial resources is an understanding of how a firm manages and strategises financial knowledge and capabilities, with regard to sound decision making and ultimately achieving the firm’s wellbeing. The point of financial resources is to make sure that the expertise and knowledge present in a firm are applied effectively for the benefit of firm performance.

Learning orientation refers to a firm’s strategic orientation, capturing specific organisational learning practices. As such, it reflects how a firm operates rather than what it does (Lumpkin & Dess 1996). The ability for firms to foster learning orientation could be a source for stable competitive advantage and will allow a firm to react against new environmental opportunities and threats (Slater & Narver 1995), consequently improved performance. In addition, it is suggested that a firm well endowed with financial resources will perform even better if it has a continuous learning orientation which promotes a willingness to capitalise on its knowledge-based resources by engaging in organisational learning activities.

CFO experience may help a firm coordinate the effects of financial diversification and opportunities available to the firm. The challenge of the CFO is to not only oversee firm financial activities aimed at making informed decisions, but to also be involved in the strategic planning process by providing insights of how the firm may utilise expertise and knowledge for a competitive advantage. In addition, the way that a firm values its CFO experience, when combined with firm financial resources, can enhance the positive relationship between financial resources and firm performance.
Firm performance is the ultimate dependent variable of interest for this research. Measuring it is crucial in allowing firms to evaluate specific actions, where firms stand vis-à-vis their rivals, and how firms evolve and perform over time (Richard et al. 2009). Evidence demonstrates that using a single measure may not fully capture a firm’s performance (Venkatraman & Ramanujam 1986). Therefore, the present research utilises different aspects of firm performance that reflect both strategic and financial measures.

3.3.1 Knowledge based view and financial resources

Knowledge is organisationally relevant if it can be translated into capabilities to enhance a firm’s growth and profitability (Kogut & Zander 1992; Grant 1996). This research contributes to the KBV, particularly in terms of the role and conception of financial resources of a firm. The firm’s financial resources can be an important determinant of sustainable competitive advantages and superior business performance. Financial resources are catalysed by the firm’s ability to analyse information critically and make a sensible decision in a timely fashion, to influence firm performance.

The literature developing the KBV provides insight into characteristics of a firm’s financial resources that may be important to the success of the firm. Following the KBV, this research develops an analytic method for measuring financial resources at the firm level, “in highly specialized form” (Grant 1996, p. 385). The KBV approach provides a framework for understanding the integration of individual’s specialised knowledge and firm’s knowledge resources (Becker et al. 2011; Grant 1996; Kaplan et al. 2001; Kogut & Zander 1992; Nonaka & Takeuchi 1995). Thus, financial resources in the present research encompass individual and firm knowledge-based resources in understanding variation in firm performance. To justify the level of financial resources, there should be some relationship between the impact of basic education attainment and other firm financial resources variables. In many previous studies, education has a significant
impact on financial literacy level (Hastings et al. 2013; Lusardi & Mitchell 2011). The present research employs CFO education as an integral part of the financial resources construct that is the basic knowledge that would enhance the firm’s financial resources and performance. It is argued that superior firm performance is governed by the capability of firms to develop and incorporate CFO education, firm’s financial knowledge, financial attitude and financial awareness to create their core competencies. Fundamental to the KBV, such resources can be a critical input in production and a primary source of value to the firm that is relatively uncommon or idiosyncratic with imperfect substitutability, thus facilitating sustainable differentiation (McEvily & Chakravarthy 2002). The firm can obtain significant benefits by aligning these resources with firm strategy and utilising it as the mean to improve their performance.

Nevertheless, the financial resources existing at any given time per se is not sufficient to form such a basis for durable competitive advantage. Sambamurthy (2000) posits that knowledge is the stock of intellectual resources accumulated through experience, learning, and ongoing practices. As such, long-term sustainable competitive advantage may also come from CFO experience and the learning orientation of the firm to effectively apply the existing financial resources and to create new knowledge as well as to take action that forms the source of achieving competitive advantage and superior firm performance.

All in all, financial resources, learning orientation and CFO experience represent a pool of human capital that adds value in executing the performance of the firm. The financial resources, learning orientation and CFO experience can be considered as strategic resources to provide a strategic link to firm outcomes. The proposed framework developed for this research is depicted in Figure 3.3 (at the end of this chapter).
3.3.2 Variables

The financial resources construct, as developed in chapter 2, has four primary factors, namely, education, financial knowledge, financial attitude towards risk taking and financial awareness. In this research, education is described as a form of learning in which skill and knowledge is acquired. The CFO education variable denotes whether the CFO possesses accreditation as a Certified Public Accountant (CPA) or Chartered Accountant (CA). Financial knowledge is associated with the possession of understanding and competence in relation to financial matters in order to manage financial resources effectively. Financial attitude towards risk taking is seen as a set of actions, values and standards that contains a financial judgment to shape a notion of what is desirable or undesirable related to risk taking. Financial attitude towards risk taking is indicated by the extent to which firms are willing to take risky financial resource opportunities to ventures into unknown outcomes. Finally, financial awareness represents a financial capability to utilise information contained in financial reports to evaluate the viability of firm.

Definitions of learning orientation abound in the literature. However, one of the most useful definitions in the context of the present study is provided by Sinkula et al. (1997). They conceptualise learning orientation as giving rise to that set of organisational values that influence the propensity of the firm to create and use knowledge. Learning orientation is associated with three values: commitments to learning, open mindedness, and shared vision. Commitment to learning reflects a tendency to foster learning climates and encourage organisational learning (Slater & Narver 1995). Open mindedness refers to the extent to which a firm critically evaluates long-held operations, assumptions and beliefs (Sinkula et al. 1997). Shared vision refers to the focus of a firm developing and giving organisational members a sense of purpose and direction (Baker & Sinkula 1999a, b). Learning orientation is measured as a uni-dimensional construct, which assumes that
underlying constructs (commitment to learning, shared vision and open mindedness) have correlations of similar magnitude with performance.

The experience of a CFO is measured as the total number of years and months of experience that the CFO has in his/her current and any previous CFO position (consistent with Aier et al. 2005).

Firm performance is defined as the set of metrics used to quantify the efficiency and effectiveness of action (Neely et al. 1995), which can be measured objectively and subjectively (Murphy et al. 1996). According to Venkatraman and Ramanujam (1986), financial performance represents the narrowest conceptualisation of firm performance. Therefore, the research tries to establish a more comprehensive firm performance construct by adding strategic performance measures. Employing both performance measures enables a more rigorous and reliable evaluation of the effect of the studied variables on firm performance.

3.4 Research Hypotheses

Based on the literature review, a number of hypotheses are articulated to describe the causal links between financial resources, learning orientation, CFO experience and firm performance. Eight hypotheses are developed on the main relationships between the variables: the relationships between factors of financial resources and firm performance; the relationships between learning orientation and firm performance; the relationships between CFO experience and firm performance; as well as the role of learning orientation and CFO experience as an interacting mechanism in the relationship between financial resources and firm performance. The following sub-sections outline the hypotheses developed for the research.
3.4.1 Financial resources

Education and firm performance

Education has been found to be one of the factors to positively impact firms’ performance (Charney & Libecap 2000; Lussier & Pfeifer 2001; Smith et al. 2006; Omerzel & Antoncic 2008; Cheng et al. 2010; Cole et al. 2014). Firms that have larger human capital in terms of education are better placed to adapt their business to constantly changing market environments (King & McGrath 2002). According to Carpenter and Fredrickson (2001), the influence of a CFO’s education could yield greater explanatory power for a variety of firm outcomes. A well-educated CFO has greater cognitive complexity and is less conservative in processing information for making decisions (Hitt & Tyler 1991). Presumably, a CFO with higher educational qualifications will bring more knowledge to bear on key issues, to influence more sophisticated decisions and strategies to improve firm performance. Given the importance of education in general, the present research proposes that a firm that has a CFO with a high level of education will be likely to have better performance than a firm whose CFO has a lower level of education.

The literature provides a strong evidence of a positive association between education and firm performance. For instance, Drexler et al. (2010) report that a higher accounting qualification has a positive effect on the performance of small businesses in emerging markets such as the Dominican Republic. Similarly, Yermack (2006) find share price reactions to be sensitive to directors’ professional qualifications, particularly in the area of accounting and finance. Research by Sinha (1996), who examined the educational background of entrepreneurs, found that most of the unsuccessful firms did not have leaders with a minimum of technical qualifications. Furthermore, Kong and Zhang (2010) show that a manager's educational level generates a positive effect on the firm's operating and market performance. In a similar vein, Cheng et al. (2010) demonstrate
that education of top executives exerts significant influence on both the firm’s performance level and growth. Moreover, Bantel and Jackson (1989) in their sample of 199 banks, find that the educational qualifications of directors’ affect the number of technological or administrative products, programs, or services adopted by the firm. Recently, Darmadi (2013) investigated the influence of the educational qualifications of the CEO on the financial performance of Indonesian listed firms; they find that the educational backgrounds of board members matter to firm performance. The above discussion suggests that education level is likely to constitute a proxy of general intellectual capability that influences the performance of the firm.

While much of the argument in the literature is that executives’ qualifications may improve firm performance, results from Stuart and Abetti (1990) are inconsistent with those of other studies. They find that advanced education beyond the bachelor’s degree did not help, but was negatively correlated to firm performance. Supporting this is a study by Lindorff and Jonson (2013), who examine the impact of CEO education on firm outcomes. They find no relationship between MBA, business, or other qualifications of CEO and financial performance. This research will attempt to understand these contrary findings by investigating the role of moderating variables (see hypotheses H6 and H8, below).

Although findings have been mixed, they generally favour the conclusion that CFOs with a higher qualification will be held to a standard that implies better firm performance compared to their counterparts. Education level could be an indication of firm’s intellect and capability to persist in challenging financial activities, facilitating the financial vitality of their firm. Given all of these discussions, it is hypothesised that:

**H1: Education of the CFO is related positively to firm performance.**
Financial knowledge and firm performance

Financial knowledge is known to be an important factor for the effectiveness of firm performance (Defond et al. 2005; Marcolin & Abraham 2006) as well as wealth accumulation (Behrman et al. 2010; Monticone 2010; van Rooij et al. 2012). Firms that are financially knowledgeable can provide informed insights for financial perspectives on strategic issues, thereby improving firm performance. Providing firms with better financial knowledge may help them engage in more appropriate and responsible financial practices (Hilgert et al. 2003) and achieve better firm performance.

Empirical findings have demonstrated a positive relationship between financial knowledge and firm performance. For instance, Marcolin and Abraham (2006) show that a modest improvement in financial knowledge would increase annual income. Similarly, Widdowson and Hailwood (2007) find that those who have strong financial knowledge were more likely to invest in complex assets and succeed. Moreover, Defond et al. (2005) demonstrate a positive market reaction to the appointment of accounting financial experts assigned to board committees. Other research, such as Davidson et al. (2004), has also confirmed the association between financial knowledge and firm performance.

Financial knowledge has become one of the most important driving forces in savvy decision-making (Allgood & Walstad 2012; Chen & Volpe 1998; Hilgert et al. 2003; Howlett et al. 2008; Lusardi 2012) and strategic long term financial planning (van Rooij et al. 2011a; Lusardi & Mitchell 2014). Financial savvy in a firm may encourage the company to employ sophisticated financial management practices that can have beneficial effects on the development and sustainability of a vibrant firm performance. Thus, this research hypothesised that:

H2: Financial knowledge is related positively to firm performance.
Financial attitude towards risk taking and firm performance

Firm performance is also dependent on the risk attitude of the firm (Sung & Hanna 1996; Krauss et al. 2005; Oseifuah 2012). The attitude towards financial risk taking allows a firm to identify opportunities and risks that are associated with informed financial decisions (Kuchciak 2013). Such attitudes have an impact on not only the decision but also the survival and failure rates of firms (Caliendo et al. 2008). So, it is proposed that financial attitude towards risk taking may play a prominent role in successful firm performance.

Considerable research has attempted to provide empirical evidence on risk attitudes’ impact on small business success (Rauch & Frese 2000; Krauss et al. 2005; Cressy 2006; Lammers et al. 2010). Widdowson and Hailwood (2007) suggest that a good level of financial literacy will build the capacity to better understand and manage financial risk and take advantage of increased financial market competition. Empirically, Grable and Lytton (1998) showed that total income is positively related to the financial risk attitude. Xiao et al. (2001) report that those who are willing to take substantial risks generally had a larger share of assets than those who were unwilling to take risks.

In general, the likelihood of engaging in the risky activity reflects the tradeoff between expected activities’ benefits and its riskiness (Weber et al. 2002). As financial attitude towards risk taking become more established, the firms will be able to view the potentially risky situation with greater enlightenment (Gilmore et al. 2004), and thus have a greater confidence in managing and undertaking higher risk strategies (Miller 1991). Hence, firms who have taken their risks effectively can be expected to better produce high performance. Given this discussion, it is hypothesised that:

H3: Financial attitude towards risk taking is related positively to firm performance.
Financial awareness of financial report and firm performance

Although, it is reasonable to assume that a firm with high financial knowledge and financial attitude will have an understanding of financial affairs, it is also reasonable to argue that higher financial awareness of the firm will have its own positive impact on firm performance. Financial awareness of financial reporting is important due to the specialised nature of the task. While financial reporting issues require knowledge of accounting standards and concepts, they also involve a high level of technical skill and knowledge of internal control concepts as well as auditing processes. Improved financial awareness on financial reporting is likely to lead to more effective and efficient management of the firms and significantly improve their long term survival (McMahon 2001; Charters et al. 2008). It is proposed here that a firm will make more effective and informed decisions if the firm is financially aware of the content of their financial report and such awareness will positively impact firm performance.

There have been calls for directors to be more aware of the firm’s decisions making process (Judge & Dobbins 1995). Descriptions of corporate failures have revealed that board members’ lack of the financial awareness and hence ability to understand the accounting information they were charged with overseeing, contributed to the firms’ downfall (Powers et al. 2002). Judge and Dobbins (1995) find that the director’s awareness of the decision style was positively related to financial profitability. Also, Kinney and McDaniel (1989) show that companies that lack financial skills in reading financial statements might encounter higher debt, less profit, slower growth and face more serious uncertainties.

Ideally, firms are most likely to succeed in energising firm performance if the firms have a high degree of financial awareness. Firms with a high degree of financial awareness
will make fewer errors and better accounting estimates and financial judgments, and thus the firm will perform better. So it is hypothesised that:

**H4: Financial awareness is related positively to firm performance.**

### 3.4.2 Learning orientation

**Learning orientation and firm performance**

A learning orientation can provide positive results in organisations (Baker & Sinkula 1999). Learning creates new knowledge that can help a firm respond quickly to market needs and industry changes (Nonaka 1994; Senge 1990). The ability to develop new knowledge faster than other competitors has been known as a source for competitive advantage (Liu et al. 2002; Slater & Narver 1995) and superior firm performance (Baker & Sinkula 1999). The present research therefore proposed that firms with a stronger learning orientation would have greater performance.

A considerable number of studies have acknowledged the role that learning orientation plays in the creation and development of knowledge for firm performance (Calantone et al. 2002; Farrell & Oczkowski 2002). Learning orientation develops knowledge that can help firms to respond quickly to market demands and industry changes (Nonaka 1994).

There is evidence that supports the proposition of a positive effect that learning orientation has on firm performance. For example, Wang (2008) using a sample of 1500 UK based firms, postulated that learning orientation is an antecedent to firm performance. This supports the findings of Farrell and Oczkowski (2002) who suggest that learning orientation has a positive impact on firm performance. Using the model developed by Baker and Sinkula (1999), Calantone et al. (2002) examine the relationship between learning orientation, firm innovation capability and firm performance in 187 US
technology companies. They find a positive relationship between learning orientation, market share and new product success. Also, Kropp et al. (2006) empirically show that business venture performance is positively related to a learning orientation. Investigating 82 small firms, Eshlaghy and Maatofi (2011) show that a firm’s commitment to learning, open-mindedness and shared vision has significantly positive effects on innovation by small firms. Through empirically testing a model of the relationship between learning orientation and innovativeness, Rhee et al. (2010) find that that learning orientation had a positive effect on innovativeness, which in turn has a significant effect on performance. In a recent study, Jiménez-Jiménez and Sanz-Valle (2011) also demonstrate a positive relationship between organisational learning and performance. Indeed, the firm’s commitment to learning strengthens its position in the marketplace (Hyvonen & Tuominen 2006).

Nevertheless, it has to be noted that in this regard, results seem to be ambiguous. For instance, Wong and Mavondo (2000) hypothesise that there is a positive relationship between learning orientation and firm financial performance. However, the hypothesis is not supported by their results. Hult et al. (2004) find that learning orientation can provide little or no value to achieving the performance objectives of industrial firms. Nasution et al. (2011) recently reported no significant empirical evidence of a positive relationship between learning orientation and customer value. Similarly, Laukkanen et al. (2013) found that the direct effect of learning orientation on performance is negative among Finnish SMEs.

Despite the arguments and findings from the immediately above studies, overall the evidence is, as Day (1994) contended, that firms, which excel in continuous learning are in a better position to anticipate change, leading to better firm performance. The contrary
results may be context driven. Given the above discussion, it can be hypothesised that, in a context of Australian SMEs:

**H5: Learning orientation is related positively to firm performance.**

**Financial resources, learning orientation and firm performance**

In the light of some of the ambiguous results noted above, the present research also investigates the proposition that the strength of the relationship between financial resources and firm performance would be heightened as learning orientation increased. It is presumed that firm’s commitment to learning may lead to greater level of financial resources, and hence will likely lead to enhanced firm performance.

A series of studies have theoretically proposed that a firm’s learning orientation is likely to indirectly affect its performance (Calantone et al. 2002; Fang et al. 2014; Hyvonen & Tuominen 2006; Nasution et al. 2011; Sinkula 1997), and that learning orientation may play an important interacting role in the relationship between financial resources and firm performance. Baker and Sinkula et al. (1999) hypothesise that the greater the learning orientation, the stronger the positive relationship between its market orientation and its change in relative market share. Their results revealed a significant interaction effect in the hypothesised direction. Recently, Huang and Wang (2011) postulate that a high degree of entrepreneurial orientation and market orientation still require learning orientation mechanisms to facilitate innovation. Similar viewpoints are postulated by Slater and Narver (1995). They empirically provide some evidence that market orientation significantly increases firm performance only when integrated with a high learning orientation.
Theoretically, learning orientation influences the degree to which a firm is likely to practice continuous financial resources as a long lasting core competency. The firm’s willingness and ability to commit to learning activities facilitates taking more calculated risks and recognising the need to be financially resourceful. A firm would have a higher likelihood of creating a sustainable performance, if they have a high level of both financial resources and learning orientation. This leads to the following hypothesis:

**H6: Learning orientation is a positive moderator of the relationship between financial resources and firm performance.**

### 3.4.3 CFO experience

**CFO experience and firm performance**

A review of literature has suggested that the abilities, skills, experience and behaviours of the top officers are critical to firm performance (Man & Lau 2005; Salomo et al. 2008). Top management teams’ experience is an important conditioning factor that influences the performance (Carpenter & Westphal 2001; Hambrick & Mason 1984; Kroll et al. 2008; Omerzel & Antoncic 2008; Roure & Keeley 1990). Specifically, a firm having a more experienced CFO could lead to better quality decisions (Bunderson & Sutcliffe 2002; Carpenter et al. 2004; Doz & Kosonen 2007). With CFO experience, the firm tends to have strategies that conform closely to industry performance (Finkelstein & Hambrick 1990).

A review of empirical studies demonstrates that the financial experience of senior management has a bearing on the ultimate success of firms. For example, Rosenstein and Wyatt (1990) find a higher positive abnormal return associated with the addition of an outsider who has experience in finance and accounting to the board. Carpenter et al. (2004) find that greater work experience of the CFO contributes to the performance of
the firm. In Eisenhardt and Schoonhoven’s (1990) study, they examined the effect of the founding board of directors’ characteristics on organisational growth and find that experience is linked with higher growth. McGee and Dowling (1994) find a direct relationship between prior technical experience of the management team and average sales growth in high technology new ventures. Similarly, Finkle (1998) shows financial experience of the directors and the size of the IPO is positively related. The result of the Shiah-Hou and Cheng (2012) study is in line with findings of Aldamen et al. (2012): both report that board committees with more experience are more likely to have an economically positive impact on a firm’s accounting and market performance.

However, other empirical studies did not provide support for this prediction that the experience of top officers is likely to be associated with better firm performance. For example, Stuart and Abetti (1990) drawing on personal interviews with the chief executives of 52 new technical ventures in the New York/New England area find that financial experience is not significantly related to firm performance. Similarly, Abhishek and Hun (2008) found that top management team work experience has no relationship with firm performance. Research from Wei et al. (2005) has provided some evidence for negative relationships between chief executives experience and firm performance. Recently, Thorsell and Isaksson (2014) conclude that the experience of directors is less relevant to long-term market performance specifically in Sweden. There is clearly a need for further study of this relationship, in other circumstances.

Although, there are some contradictory findings, most of the studies support that the presence of top management team experience is an important conditioning factor of firm performance. Arguably, years of CFO experience should be associated with an ability to implement technical, effective solutions to complex financial management problems and
possibly more perspectives in the decision-making process. Thus, this study hypothesises that, again in the Australian SME context of this research:

**H7: CFO experience is related positively to firm performance.**

**Financial resources, CFO experience and firm performance**

Theoretically, the presence of CFO experience would extend the financial resources of the firm, enabling and encouraging critical processing of information and thus creating diverse insights in decision making (Lusardi 2012). CFOs with more experience are able to contribute to high levels of financial resources and better firm performance. So the present research proposes that the strength of the relationship between financial resources and firm performance would be heightened as CFO experience increased.

Prior research (Uyar & Gungormus 2013) indicates that experience has a positive impact on financial knowledge, and also has a great impact on skills that help to increase growth (Perren 1999). DeFond et al. (2005) conducted an event study for a sample of firms appointing accounting and non-accounting financial experts to their board committees and found a positive stock market reaction only for appointments of accounting-experienced experts. This may be extendible to the reasonable proposition that senior management expertise has a positive impact on performance. Having CFO experience may contribute to significantly more effective financial resources, and positive abnormal return (Coates et al. 2007). Indeed, the coupling of strong financial resources with high CFO experience can offer better firm outcomes.

CFO experience may be considered a strategic resource of the firm that provides a link to the improvement of the financial resources and firm performance relationship. Experience not only increases financial acumen, it can also augment their financial
resources with the pooling of information and the expression of diverse insights and strategies. As such, the CFO experience will enable the firm to increase and apply financial resources more efficiently and more widely, since the more the experience, the better they have the opportunity to evaluate and make informed decisions (Kroll et al. 2008; McDonald et al. 2008). With such experience and thorough financial resources, the firm would be able to enhance its sustainability. Such reasoning would imply that the when the financial resources is combined with increased CFO experience, it is likely that there will be better firm performance. Accordingly, higher CFO experience will provide a greater financial resources contribution to superior firm performance. Therefore, it can be hypothesised that:

**H8: CFO experience is a positive moderator of the relationship between financial resources and firm performance.**
3.5 Summary

The development of the theoretical framework for this research is based upon the gaps identified in the literature, particularly those related to understanding predictors of SMEs’ performance. This research draws on two strategic management theories that act as the foundations to this research, namely, the RBV theory and KBV theory. Both theories are used to explain the possible relationships between financial resources, learning orientation, CFO experience and firm performance. A general assertion of the research was that a firm has a higher likelihood of creating a sustainable competitive advantage, and thus improved firm performance, if they have higher financial resources, a stronger learning orientation and a higher CFO experience. Aside from natural resources monopolies, in the generally very competitive business conditions that SMEs operate in, financial resources, learning orientation and CFO experience may be particularly important for providing sustainable competitive advantage. Financial resources, learning orientation and CFO experience can be generally seen as socially complex and inherently difficult to imitate, thus resources (in the RBV sense) that are a good basis for improved performance. Therefore, it is argued, it is critically necessary for firms to acquire financial resources and CFO experience as well as continually develop their learning orientation, in order to enhance a superior performance.

In this chapter, the research framework was presented, followed by the definitions of the variables in the framework. Based on this framework, eight hypotheses were proposed that focus on the relationships between financial resources, learning orientation and firm performance. Also, the role of learning orientation and CFO experience as interacting effects on the relationship between financial resources and firm performance were hypothesised. The relevant literature and empirical findings were reviewed and discussed to provide a basis for each hypothesis.
Figure 3.3 summarises the model and the hypothesised relationships proposed in this chapter. This model is the basis for the empirical investigation in the rest of this thesis. All eight hypothesised relationships are expected to be positive.

**Figure 3.3: Research Framework**

The next chapter describes and discusses the research design and research method used in this research.
CHAPTER FOUR
RESEARCH DESIGN AND METHODS

4.1 Introduction
Scientific research involves the application of various methods and techniques in collecting, analysing and interpreting data in order to increase the understanding of a particular phenomenon (Sekaran 2003). The purpose of this chapter is to describe the research design and methods used in this research.

The chapter presents a detailed description of the research design and methodology used. Theoretical paradigms and the underlying philosophical assumptions are discussed in Section 4.2. Section 4.3 presents the four stages of research processes that are conducted in the research. Section 4.4 explains the approach taken, the population and sample used. Section 4.5 outlines the different stages of questionnaire development. Section 4.6 describes the primary method of data collection for this research. Ethics considerations are discussed in Section 4.7. Section 4.8 presents the scale items used to measure the constructs of the research. Section 4.9 explicates the procedures that were used to measure the reliability and validity of the instrument. Section 4.10 explains the statistical techniques used to analyse the data to accomplish the research objectives. Finally, Section 4.12 summarises the chapter.

4.2 Research Philosophy
According to Thomas (2004), what governs the selection of a relevant paradigm and methods are the research problems and research questions. Based on the understanding of the research paradigms and associated philosophical beliefs and assumptions, the
justifications of the research paradigm adopted for this research are discussed below. The focus of the research is to examine the performance of SMEs by capturing it from financial resources, learning orientations and CFO experience perspectives. This research used a positivist paradigm and quantitative research approach. Hence, the nature of the investigation is experimental rather than descriptive and requires deductive logic rather than inductive reasoning.

The underlying paradigm adopted needs to be understood as it plays important roles in outlining the researcher’s perception of the world, what is considered the reality, how that reality can be understood and what methods are best taken to obtain further knowledge on that reality.

The philosophical assumptions underlying this research come mainly from positivism. The research aims to examine theories on financial resources, learning orientation and firm performance of SME using scientific models to discover the logical order of these patterns. This research did not aim to understand and gain insights in order to describe the world (Saunders et al. 2006), nor to identify the mechanisms and structures that produce the phenomena experience (Lewis 1996). As such, interpretivism and critical realism are believed to be unsuitable to the research.

The essence of this research is to meet the fundamental demands of the paradigm to achieve certainty, to be objective and value- free as a basis for predicting and explaining the phenomena. Supporting this view, the knowledge of the phenomena is gained from objective methods rather than subjective interpretations or introspection. The positivist approach is important for doing this as it addresses the factual context by interacting directly with statistical techniques and procedures to establish and validate
hypotheses. As such, the results obtained through these methods may lead the researcher to draw value-free generalisations (Guba & Lincoln 1994) that contribute to theories.

Much organisational research has been largely influenced by the positivist approach and hence focused on quantitative methods (Carson & Coviello 1996; Davidsson 2005; García-Morales et al. 2008). While qualitative evidence satisfies the subjective reality, it neglects the objective reality that taps the rigour of statistical evidence on the performance of SMEs.

The epistemological assumption is that the social reality exists externally and its properties should be measured through objective measures in which the researcher remains distanced from the researched subject. The researcher’s subjective perceptions and values did not affect the outcomes of the research, in order to ensure its detachment and objectivity. This research is value-free, relying on scientific and structured methodological procedures to ensure the findings in examining the factors that influenced the performance of SMEs are free from subjective bias. Empirical analysis in this research was concerned about theory testing and verification of hypotheses to discover the laws that describe the phenomenon.

Providing insight into deductive logic, the hypothetical model built aims to explain the impacts of financial resources, learning orientation and CFO experience on firm performance rather than understand the phenomenon. The terms ‘explain’ and ‘understand’ differ greatly in inquiring knowledge (Bjerke 2007). The former means to look for factual data and to build models, while the latter involves getting access to subjective opinions. This research complies with positivism philosophy as it addresses the real-life context in which the data is collected directly from the practitioners of SMEs to capture relevant findings and information. It therefore utilises quantified operational
logic to analyse what is being researched using the process of deduction to establish valid and reliable causal explanations and theories (Easterby-Smith et al. 2002).

From a methodological perspective, this research relies heavily on quantitative methods to analyse the phenomenon observed. This choice of research methodology is consistent with the ontology and epistemology stances of the study. The underlying grounds for generalisability in this research require the use of well-designed questionnaires as an instrument for collection of data on variables that can be accurately described and causally explained.

According to Neuman (2003), quantitative research builds on a language of variables, hypotheses, units of analysis and causal explanation. Generally, research outcomes have a high level of abstractness and therefore require principles of quantitative testing to weight the outcomes. Furthermore, quantitative research is an effective tool to decrease the bias level and to increase the internal and external validity (Guba & Lincoln 1994). Indeed, it allows the present research to explain the level of financial resources, learning orientation and firm performance of SMEs in Australia comprehensively and reliably.

The rationale for choosing the quantitative research method was twofold. First, the method allowed for exploration of relationships between variables through the testing of hypotheses (Neuman 2003). Eight hypotheses were identified for the research. Each hypothesis sought to determine whether a relationship existed between the independent and dependent variables. Regression analysis was used for this purpose. Findings from the evaluation did not identify causation or why a relationship was or was not present. Findings were used to accept or not the research hypotheses.
A major criticism of qualitative research is being subject to researcher bias that is influenced by the researcher’s values and perceptions. Quantitative methods rely primarily on a numerical approach for collecting data thus, distancing the researcher from human influences (Neuman 2003). Qualitative methods on the other hand, tend to use exploratory approaches and produces textural data rather than numbers or measurements (Roberts et al. 2006). It involves researcher’s participation within the research setting (Neuman 2003). The results of quantitative methods are prone to less bias.

4.3 Research Processes

Figure 4.1 depicts the four stages of research processes that were conducted in the research.

Stage 1: This involved an extensive review of literature in the areas of financial resources, learning orientation, CFO experience and firm performance. The review of the literature was used to develop a conceptual model, formulate the research objectives, questions and hypotheses. The operationalisation of the research variables and the research instruments were developed. The sampling frames for the data collection were identified and selected from the respective databases.

Stage 2: This involved three sequential phases of data collection: pre-testing, pilot study and main survey. The first phase includes pre-testing in order to develop and test the validity of the research instruments. Next, the questionnaire was piloted to refine the survey instrument, considering issues such as the wording, the content of the questions and time of completion, and to assess the feasibility of the main survey. Several modifications were made to refine the instrument before the questionnaire was used in
the data collection stage. Finally, the main survey was distributed to the identified respondents.

Stage 3: This comprised performing data entry and analysing the data through statistical methods. The data screening involved such matters as descriptive statistics, missing values, normality and common method variance analysis, along with inspecting data for errors and correcting them prior to doing data analysis. Factor analysis was conducted to explore the underlying factor structure of the set of variables. Regression analysis was to test the research hypotheses proposed in the theoretical model and to address the research questions.

Stage 4: This involves reporting and interpretation of the results from the analyses.
Literature review in broad area of
- Literature review of financial literacy
- Literature review of learning orientation
- Literature review of CFO experience
- Literature review of firm performance

Identify research problem

Development of conceptual framework

Development of research instruments

Operationalise key variables

Development of sampling frame

Stage 1

Pre-test questionnaire

Pilot study

Refinement of questionnaire

Main data collection

Data entry and screening

Factor analyses

Regression analyses

Hypothesis testing

Reporting research findings

Interpretation of results

Stage 2

Stage 3

Stage 4

Figure 4.1: Research Processes
4.4 **Approach of the Research**

The first two research questions attempt to define financial resources and identify the dimensions of financial resources, and to develop a firm-level measure of financial resources and to determine its impacts on performance. The next two questions intend to determine the level of learning orientation and CFO experience and their impacts on firm performance. The final two questions aim to assess the effect of interacting factors on financial resources’ impact on firm performance.

**4.4.1 Extent of researcher interference**

Sekaran (2003 p. 127) states that the extent of interference by the researcher with the normal flow of work at the workplace has direct bearing on whether the study undertaken is a causal or correlational study. In this research, the extent of interference in the research is minimal. The participants have not been randomly assigned to treatment conditions (Thompson et al. 2005) during the data gathering process. Survey questionnaires were employed to collect the data on financial resources, learning orientation, CFO experience and firm performance from the CFOs or key financial decision makers of the respective firms. Though respondents took the time to complete the survey, it did not interfere substantially with the normal operating flow of the firm.

**4.4.2 Study setting**

In accord with the correlational nature of the study, this research was carried out in a non-contrived setting. The research was conducted in the usual environment in which the work routine of the firm proceeds normally. In other words, the research was conducted with minimal interference from the researcher and no manipulation of firm’s activities. Conducting the research in the natural setting, rather than in controlled research laboratory setting, this research essentially can be considered as a field study.
4.4.3 Unit of analysis

One of the most important elements in a research design is the unit of analysis. This refers to the level of aggregation of the data collected and used in the subsequent data analysis stage (Cavana et al. 2001). Identifying the unit of analysis is important to avoid deviating from the focus of the research, which can lead to the collection of unnecessary data. The research was carried out at a firm level of analysis. Data were collected from a sample of SMEs in Australia.

4.4.4 Time horizon

Cross-sectional surveys are the most common practice of data collection (Zikmund 2003). They offer an opportunity to investigate relations between variables (Reis & Judd 2000) that can be analysed through statistical methods. This type of study is also less expensive and time-consuming than a longitudinal study (Sekaran & Bougie 2010; Zikmund 2003). Given the nature of the research objectives and time constraints, this research employed a cross-sectional horizon in which the data are gathered just once to answer the research questions. Data were collected with a questionnaire at a particular point in time.

4.4.5 Measurement of variables

This research utilised interval, nominal and ordinal scales. The items in sections one to three of the questionnaire primarily used ordinal scale questions. Whereas, nominal scales were used for descriptive respondent’s profile items (refer to Appendix 1 Section 4). A Likert scale was selected as the appropriate measurement scale to measure cognitively, affectively and behaviourally based attitudes (Cooper & Schindler 2006). It is the most frequently used variation of the summated rating scale in survey research. The Likert Scale, as per DeVellis (2003, p. 78-79), consists of a “declarative sentence, followed by response options that indicate varying degrees of agreement with or
endorsement of the statement”. This scale enables respondent to express either a favourable or unfavourable attitude toward the object of interest (Cooper & Schindler 2006). The scale is practical to develop, reliable and most importantly able to provide comprehensive information regarding observed phenomenon. The range of possible responses for scales can vary, typically the five or seven point formats would appear to be the most prevalent approach (Dawes 2008). Scores based on seven point Likert scales tend to be an appropriate balance in giving sufficient points of discrimination without being too many options. Moreover, it may yield more information about the variable of interest. The seven-point Likert scale therefore, was employed. Previous scholars of learning orientation have used five-point Likert scales (for example, Sinkula et al. 1997). In the present research, a seven-point Likert scale ranging from 1 ‘strongly disagree’ to a 7 ‘strongly agree’ was used. Harris and Ogbonna (2001a) reported that employing seven-point Likert scales improves reliability and is better for principal component analysis.

The instruments measured firm financial resources, learning orientation, financial work experience and firm performance that often reflect past experience and future behaviour of the firm. Three items of financial resources were negatively worded (FK2, FFR2 and FFR4) and hence, were reverse-coded prior to analysis. Experts have frequently advocated the importance of including reversed coded items in surveys research (Nunnally 1978; Churchill 1979). The use of negatively worded items can help to reduce acquiescence response bias in questionnaire items (Hinkin, 1998). Nonetheless, some authors have argued against the use of reversed items in measurement scales (DeVellis 2003; Rodebaugh et al. 2007). They believe reversed items can lead to measurement problems, for instance the item may not produce an exact opposite statement and tend to lower internal consistency of the scale. This minimised problem in the present research,
through care in wording the items. The factor analysis did not show any evidence of this problem in this research, which supports for this contention.

Table 4.1 summarises the elements of the research design for this research.

**Table 4.1: Research Design**

<table>
<thead>
<tr>
<th>Elements of Research Process</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Purpose of the study</td>
<td>Hypothesis testing</td>
</tr>
<tr>
<td>Type of investigation</td>
<td>Correlation; causal relationship</td>
</tr>
<tr>
<td>Extent of researcher interferences</td>
<td>Minimal</td>
</tr>
<tr>
<td>Study setting</td>
<td>Non-contrived; field study</td>
</tr>
<tr>
<td>Unit of analysis</td>
<td>Organisational level</td>
</tr>
<tr>
<td>Time horizon</td>
<td>Cross-sectional study</td>
</tr>
<tr>
<td>Sources of data</td>
<td>Primary sources of data</td>
</tr>
<tr>
<td>Data collection method</td>
<td>Quantitative method; questionnaires</td>
</tr>
<tr>
<td>Measurement of variables</td>
<td>Nominal, ordinal and interval scale</td>
</tr>
</tbody>
</table>

Source: Adapted from Sekaran and Bougie (2010).

**4.4.6 Population**

Population refers to the entire group of people, events, or things of interest that can be a focus for the researcher to investigate. The population for this research comprises SMEs across industries in Australia. Sampling from a broad range of industries enables provision of a wide spectrum of information with regard to the model proposed in the research and accommodates more generalisability of findings than single-industry research (Dess et al. 1990).
This population was chosen for two main reasons. First, this population represents a key vehicle for economic and community development in Australia (Commonwealth Bank Australia 2003; Perera & Baker 2007). The second reason for selecting this population was that it is an under-studied population, particularly with regard to financial resources. As of 2014, no known studies had been published considering financial resources of SMEs. A series of recent studies have postulated that financial knowledge and capabilities are important for small and medium businesses, yet not empirically demonstrated this (Bruwer 2010; Andoh & Nunoo 2011). This is the first research that investigates the impact of financial resources on firm performance. With regards to learning orientation, a large body of theoretical research has converged on the view that learning orientation is related positively to firm performance. Nonetheless, there are only a few empirical studies focused on SMEs (Keskin 2006; Michna 2009). Findings drawn from research on large organisations cannot be applied to SMEs without empirical confirmation. A majority of empirical studies highlight the importance of the CFO’s experience in maintaining the integrity of corporate financial reporting and underlying internal control processes of the firm (Aier et al. 2005; Li et al. 2010). The experience of CFO also play a significant role in improving firm performance, however, empirical evidence on the relationship between CFO experience and firm performance is scarce. An understanding of the relationship between financial resources, learning orientation, CFO experience and firm performance will indeed provide SMEs insight into areas for improved firm outcomes.

4.4.7 Sample

Data were collected from SMEs operating in all territories and states in Australia. For the purposes of this research, the ABS definition was used to define SMEs. The ABS defines Australian SMEs based on the number of employees of the firm. A small and medium enterprise is defined as a business employing less than two hundred people. Categories of
SMEs include: micro businesses that employ less than five employees, small businesses that employ five or more people but less than twenty and medium businesses that employ twenty or more people but less than two hundred.

4.4.8 Sampling unit

The research question of this study involves the investigation of how financial resources, learning orientation and CFO experience are related to firm performance of SMEs. Previous studies (Campbell 1955; Kumar et al. 1993; Seildler 1974) provide encouraging evidence about the effectiveness of a key informant approach. The technique of the informant means that the research obtains information about the group under study through a member who occupies such a role to be well informed but who at the same time able to communicate on the issue of interest (Campbell 1955; Huber & Power 1985). The informant technique has advantages in which it tends to keep the investigation at the structural level and it often saves money in the data collection process (Seidler 1974). Campbell (1955) points out that the use of the informants in quantitative research can increase validity and generality of findings.

Consistent with previous studies (Campbell 1955; Hambrick et al. 1993; Coltman & Devinney 2007; Deakins et al. 2012), a key informants survey strategy was used for the present research. It is also known as an experience survey (Churchill 1999). It attempts to tap the skill, experience and knowledge of those familiar with the subject under research.

Generally, access to performance data on privately held firms is severely restricted because they are very sensitive about releasing any performance-related data (Dess & Robinson Jr. 1984). As such, relying on key informant accounts is appropriate when the content of inquiry is such that complete or in-depth information cannot be expressed from representative respondents (Kumar et al. 1993). This role involves giving reports
about patterns of behaviour, after summarising either observed (actual) or exposed (prescribed) organisational relations (Seidler 1974). “The informants are chosen not on a random basis but because they possess special qualifications such as particular status, specialised knowledge, or accessibility to the researcher” (Phillips & Bagozzi 1986, p. 313). Even if access to such information is obtained with a sample of privately held firms, there is greater risk of error attributable to varying accounting practices in these firms (Dess & Robinson 1984). Examining strategic-level manager’s perceptions, rather than the objective characteristics of the firm, is generally accepted as an appropriate approach when studying aspect of firm strategy (Huber & Power 1985). In mapping out the population of research interest, it is important to choose ‘right’ key informants.

The importance and adequacy of top executives as informants was recognised by previous researchers (Campbell 1955; Seidler 1974) who claimed that upper level informants tend to be more reliable sourced than their lower level counterparts. In keeping with Phillips (1981) suggestion, key informants for this research were CFOs or key financial decision makers of the firms. Their skills, experiences and insights systematically differ from other executives. Their organisational roles have significant influence over firm strategies and performance. As postulated by McGregor and Tweed (2001, p. 280) in SMEs “core competencies of the enterprise become virtually synonymous with the competencies of the manager”. With their background as CFOs or key financial decision makers, they are potentially and most reliably able to provide in-depth understanding and views on the research interest. Therefore, these groups were considered as most knowledgeable regarding the set of subjects covered in the research.

Huston (2010) interestingly reports that there have been no financial knowledge and capabilities studies undertaken on senior managers within organisations. Financial knowledge and capabilities is typically measured at the individual level and then
aggregated by groups, such as high school students or low-income adults, to provide a macroview (Remund 2010). Other types of target audiences are investors, workers, teachers and subjects segmented by age (example, Hung et al. 2009; Lusardi et al. 2010). Hence, the present research intended to fill this gap, specifically by examining the CFO of SMEs. As Mian (2001, p.144) notes, “while the theory and practice of corporate finance has attracted considerable attention from the academic finance profession, we know little about the individuals who hold these positions”.

Inappropriate key informants will yield invalid and meaningless data (Godambe 1982). As confirmed by Huber and Power (1985), the inducement of the top executives to respond to the survey can significantly influence accuracy of responses. There were several approaches used in the questionnaire in order to ensure the cooperation from the respondents (refer Appendix 1). First, the importance of the research to the top executives and the firm were explained in the questionnaire cover letter. The usefulness of the study to the SMEs operating in Australia was also mentioned. Second, complete confidentiality of responses was assured in order to counteract the risk of unwillingness to respond. Finally, the time the respondent will take to fill out the questionnaire was acknowledged. A free copy of a report detailing the results of the survey was offered as a token of appreciation.

4.4.9 Frame
A frame can be defined as a representation of the elements in the population from which the sample is drawn (Sekaran & Bougie 2010). It consists of a set or list of from which the potential respondents are drawn. The completeness of the sampling frame is very important because they represent the characteristics of the total population (Saunders et al. 2000).
The sampling frame was drawn from Dun and Bradstreet (Australia), covering Australian Securities Exchange (ASX) and Australian Securities and Investments Commission (ASIC) databases. Both databases were used for the surveys broadly representing SMEs in the Australian context. In addition, the databases were chosen because they provided the current details of companies and contacts. The sampling frame for the ASX database included 3,579 companies and 2,269 for ASIC database. Unlike ASIC, only 586 SMEs that met the sampling criteria of the research were shortlisted from the ASX database. The ASX database provides the firm’s details including name of the firm, name of financial decision maker, number of employees, annual revenue, postal address, website and telephone numbers. Whereas, the data elements of the ASIC database are: business name, contact name of financial decision maker, number of employees, industry classification, telephone number, postal address and email address.

The firms for this research were systematically selected according to the following criteria: first, the firms must have less than 200 full time employees and second, the firms must be located in Australia. Firms that had more than two hundred employees were excluded from the sample as they may be termed as large enterprises. The reason for this exclusion is because they were not the main concern for the research. Generally, large organisations can be expected to have better financial resources, learning orientation and CFO experience than small and medium enterprises.

4.4.10 Sample size

Determining the required number of responses (sample size) is an important step in designing a survey. Recommendations for sample size range from 30 to 500. Generally, Hair et al. (2010) posits that a sample of 100 or more should be deemed acceptable for statistical analysis. Another rule of thumb, recommended by Roscoe (1975), is that a sample size larger than 30 and less than 500 is suitable for most research. For factor
analysis, a minimum sample size of at least 300 has been recommended in a recent research by Tabachnick and Fidell (2007). Guadagnoli and Velicer (1988) on the other hand suggest that a sample size of 150 observations should be sufficient to obtain an accurate solution in factor analysis as long as item intercorrelations are reasonably strong. The sample size for the present research was 241 usable surveys. This number of responses is sufficient to represent the whole population of the research, and allow the planned analyses. Non-response issues are discussed in the Results chapter.

4.5 Questionnaire instrument

The development of the questionnaire was a three stage process. First, an understanding of the observed phenomenon and a thorough review of the literature in the research field were used to develop the theoretical definition of the research construct. The definition is then used as a basis for the items development (Schwab 1980). A deductive approach to item development was used to identify a possible set of items for the constructs. These were then subjected to a content validity assessment through a pre-test as well as a pilot study, which were used to further develop the items for the research constructs.

4.5.1 Pre-test

Prior to the pilot study, a pre-test was undertaken with several experts and practitioners such as RMIT Higher Degree by Research (HDR) students, academics and business managers who resembled the research population. Practically, this is to strengthen the content validity of the instrument. The results were analysed and the questionnaire revised in terms of clarity directions, response categories and question wording. Items that seemed unimportant were deleted and the ambiguous items were improved.
4.5.2 Pilot study

Pilot study refers to a “small scale version[s], or trial run[s], done in preparation for the major study” (Polit et al. 2001, p. 467). Relevancy and accuracy are two basic elements in judging findings of the survey. According to Zikmund (2003) relevancy is assured when no inessential information is collected, accuracy on the other hand, is assured when the collected information is reliable and valid. A pilot study is one of the important techniques to overcome some disadvantages of the survey method (Van der Stede et al. 2005). Generally, it strengthens the validity and reliability of the development of the main survey (Bordens & Abbott 2008). Furthermore, it helps to save cost, effort and time, while substantially improving the data collecting process. It is necessary to conduct a pilot study in order to ensure that the proposed measure is unambiguous, reliable and valid.

There are several other important reasons for conducting the pilot study. Firstly, to assess whether each measure is relevant and practical. Secondly, to identify potential problems that might occur in the measure. Thirdly, to make a preliminary assessment of a new measure (particularly, in this case, financial resources). Finally, is to assess the chances of success of the main data survey.

The pilot study was conducted between February and March 2013 to verify the reliability and content validity of the measure by highlighting any possible problems in advance and to refine any item that might be ambiguous (Cooper & Schindler 2003; Zikmund 2003; Presser et al. 2004). Although, the literature on financial literacy is quite extensive, at the best of our knowledge no studies were conducted at a firm level. Thus, the pilot study carried out in this research was necessary to understand the financial knowledge and capabilities issues from the firm-level perspectives.
The measure was piloted with twenty five participants drawn from RMIT HDR students that have managerial experience in the past. According to Burns and Bush (2006), a pilot study of fifteen to thirty representative participants is sufficient to identify problems with a questionnaire. Participants received questionnaires by hand and were asked to complete and give feedback on the content of the questionnaire. They were asked to identify unanticipated errors such as difficult expressions, unclear concepts, double questions, missing alternatives and leading questions (Hunt et al. 1982; Zikmund 2003), and also, to indicate the time required by a respondent to complete the questionnaire. In response to the pilot study, some items of the scale were revised and rewritten. Some items were rephrased, particularly item four of financial awareness of financial report and item six of learning orientation. The pilot study also resulted in deleting one item on financial knowledge. Accordingly, the final version of the questionnaire includes thirty two items across six perspectives. The average time taken to complete the survey was approximately fifteen minutes.

4.6 Data Collection

The questionnaire method of data collection is the best approach to collect data from a large group of respondents in a short time, and relatively inexpensive. Moreover, it has the advantages of providing the anonymity that may lead respondents to give frank and precise answers (Oppenheim 2000), while at the same time increasing the generalisability of data. Subjective data is also known to be as good, or sometimes even better, than factual data in relation to organisational performance research (Dess and Robinson 1984).

The survey was carried out using a three-stage approach. The email-out survey contained an explanatory letter and questionnaire, sent to key informants using Internet survey
software Qualtrics. Given the possibility of non-response and unwillingness to participate, a mail survey was also used to supplement email survey response rates. Finally, the respondents were contacted with follow-up email and telephone call to encourage a higher response rate.

4.6.1 Email survey

For the ASX sample, the survey took the form of an online-based survey developed using Qualtrics. Emails were sent to potential respondents, inviting them to participate in the survey by following a link provided. In every email, the objective of the survey was described and the contact details of the researcher, supervisors and RMIT College Human Ethics Advisory Network (CHEAN) were provided. In addition, the email informed the participants that a letter version of the survey was available for convenience.

Emails were sent to 586 firms inviting them to fill in the online questionnaire using the contact address provided in the directory. Of these e-mail addresses, a total of 42 replies were received but only 25 were usable. This yielded a response rate of four per cent. This poor response rate is in line with general experience with on line surveys of businesses. One possible reason for the low response rate was that the email address listed in the ASX database is in most cases the general mail address of the firm and not the personal email address of the CFOs. The emails were therefore, transferred to company secretary or administrative assistants rather than directly to CFOs. Another possible reason may be due to the timing of this data collection. The period between May and July 2013 was the end of year financial closing period for firms, when potential respondents may have limited time and too busy schedules to answer the questionnaire.
A follow up approach is an effective method to encourage the response rate. Courtesy reminders were made to remind the respondents to complete the questionnaire. The first reminders were sent via email to the respondents who had not replied within two weeks of the first invitation. The researcher used telephone reminders to contact respondents who had not replied within three weeks of the original invitation as a second follow up effort.

4.6.2 Mail survey

As the respondents were geographically dispersed, self-administered questionnaires were sent through regular mail. The mail questionnaire is the most common survey method used by scholars especially when the researcher is familiar with the variables that need to be analysed (Bailey 1994). In fact, some of the email respondents had pointed out that they preferred a paper based survey. This approach was very helpful because about ninety per cent of the total number of responses was gathered using this technique. Data pooling strategy will be discussed later.

The ASIC database was used to obtain more CFOs. Anonymous questionnaires were mailed, accompanied by a covering letter and reply paid envelope. The letter was printed on the university letterhead. The cover letter is an important feature that can increase the response rate as it introduced the study, objective and contributions to the potential respondents. The letter also assured confidentiality and anonymity of the respondents. Other means also employed to increase the response rate include enclosing self-addressed reply paid envelopes and the use of encouraging incentives such as an offer to send a free copy of the report detailing the results of the survey upon request. The researcher’s, supervisors’ and RMIT CHEAN’s contact details were also provided.
A total of 2,269 CFOs or key financial decision makers of Australian SMEs were selected from ASIC database. Of these, 293 questionnaires were received within a month period. Only 216 responses were suitable for the research, representing a response rate of approximately ten per cent. This low response rate was partially due to reasons such as the frame having incomplete data and incorrect addresses. The point should be made that experiencing difficulty in getting responses from SMEs is a common problem with a mail survey. Past scholars that conducted research on small firms have reported similar problems (Alam et al. 2012; Hambrick et al. 1993). This observation is in line with Sekaran’s (2003) observation that a major constraint in any research involving surveying small firms is achieving an adequate response rate.

4.7 Ethical Considerations

The treatment of respondents was in accordance with the Ethics Guideline Procedures outlined by RMIT University in the Ethics Review Process. Ethics approval was obtained by the RMIT Human Research Ethics Committee (HREC) prior to commencement of the data collection stage. The aim was to ensure that questions were designed according to the standard requirements of the ethics committee.

4.8 Measurement Instruments

The questionnaire comprised forty items in four sections. The first part of the questionnaire contained financial resources questions, the second part on learning orientation, the third part on firm performance and the fourth part about the respondent (questions 1-4) and the organisation itself (questions 5-8). Respondents are also asked to provide details on their firm’s number of employees, years in business, industry and past total sales, and their own age, gender, academic qualification and years of work
experience as CFO or key financial decision maker. In addition, the survey included a field for the respondents to provide their contact details if they willing to participate in an interview with the researcher in the future, if necessary (this option was not pursued further). The overall instrument ran to four pages. It is felt that this would be approaching the maximum length that SMEs would find acceptable as they have a reputation for poor response rates. The survey questions can be found in the Appendix 1.

The questions used to assess financial knowledge and financial awareness were developed for this research and financial attitude, learning orientation and firm performance were measured by well-validated scales from the literature. The financial resources scale involved fourteen items to measure education, financial knowledge, financial attitude and financial awareness. For learning orientation, there were twelve items that measure commitment to learning, open mindedness and shared vision. The firm performance scale included seven items to measure financial and strategic performance.

The measures of a single construct varied in length from three to five items. Adequate internal consistency reliabilities can be obtained with as few as three items (Cook et al. 1981). Keeping a measure short is an effective means of minimising response biases (Schriesheim & Eisenbach 1990). Adding items indefinitely makes progressively less impact on scale reliability (Carmines & Zeller 1979).

4.8.1 Independent variable: financial resources

Financial resources were measured by respondents’ answers on education, financial knowledge, financial attitude and financial awareness. The fundamental concepts of finance in everyday transactions that are crucial to the making of informed decisions. These were assessed with thirteen Likert scale questions. The measure for financial
attitude towards risk taking used was an adaptation of the Covin and Slevin (1989) scale. Table 4.2 shows the three financial resources dimensions (other than education) and their items in the questionnaire.

**Table 4.2: Financial Resources Scale**

<table>
<thead>
<tr>
<th>Financial Resources (1=Strongly Disagree, 7=Strongly Agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are thirteen (13) descriptive statements listed in this section to describe your financial resources. Please indicate to what extent your organisation undertakes the following financial practices.</td>
</tr>
</tbody>
</table>

**Financial knowledge**

1. Our organisation is usually knowledgeable about its overall financial needs and goals.
2. Our organisation is usually knowledgeable when evaluating a variety of saving options.
3. Our organisation is *not well informed* on its investment prospects.
4. Our organisation is usually knowledgeable about the rate of return associated with each investment.
5. Our organisation is usually knowledgeable about the current market condition.

**Financial attitude towards risk taking**

6. Our organisation has a strong propensity for high-risk projects (with chances of very high returns).
7. When confronted with financial decision making involving uncertainty, our organisation typically adopts a bold strategy in order to maximise the probability of exploiting opportunities.
When there is uncertainty, our organisation typically adopts a “wait-and-see” position in order to minimise the probability of making costly decisions.

Financial awareness of financial report

Our organisation is aware of the existence of the International Accounting Standard Board’s International Financial Reporting Standards for SMEs.

Our organisation is not well aware of the introduction of a new accounting standard in preparing financial reports.

Our organisation is typically aware that financial statement data can provide meaningful insights into the financial performance of a business.

Our organisation is unaware that financial statement data enables to foresee the impending liquidity and financial crisis.

Our organisation is typically aware that financial statement data can provide concise guidance on an organisational goal.

4.8.2 Independent variable: learning orientation

Learning orientation is the degree to which firms stress the value of learning for long-term benefits (Hult et al. 2000). This scale is composed of three components: commitment to learning, shared vision and open-mindedness. For commitment to learning and shared vision, these scales were derived from Sinkula et al. (1997) using an eight-item scale. For open mindedness scale was measured by four-item from Hult and Ferrell (1997). Several scholars (Hult et al. 2003; Joo & Park 2010) view learning orientation as uni-dimensional, which assumes that underlying constructs (commitment to learning, shared vision and open mindedness) have correlations of similar magnitude with performance. The present research adopted this latter standpoint. Table 4.3 shows learning orientation items in the questionnaire.
Table 4.3: Learning Orientation Scale

Learning Orientation (1=Strongly Disagree, 7=Strongly Agree)

There are twelve (12) descriptive statements listed in this section to describe your learning orientation. Please indicate to what extent your organisation undertakes the following practices.

Commitment to learning

1. Managers basically agree that our organisation’s ability to learn is our key competitive advantage.
2. The basic values of this organisation unit include learning as a key to improvement.
3. The sense around here is that employee learning is an investment, not an expense.
4. Learning in our organisation is seen as a key commodity necessary to guarantee organisational survival.

Open mindedness

5. We are not afraid to reflect critically on the shared assumptions we have about our customers.
6. Personnel in this enterprise realise that the very way they perceive the marketplace must be continually questioned.
7. We rarely collectively question our own biases about the way we interpret customer information.
8. We continually judge the quality of our decisions and activities taken over time.

Shared vision

9. There is a commonality of purpose in my organisation.
10. There is total agreement on our organisational vision across all levels, functions and
divisions.

11 All employees are committed to the goals of this organisation.

12 All employees view themselves as partners in charting the direction of the organisation.

4.8.3 Interaction variable: CFO experience

Following the study of Aier et al. (2005), the experience of the CFO was measured as the total number of years and months of experience that the CFO has in his/her current and previous position.

4.8.4 Dependent variable: firm performance

Firm performance measures are defined as metrics employed to quantify the efficiency and effectiveness of operations (Tangen 2003). This issue has always remained problematic in business research (Fahy et al. 2000). Firm performance of SMEs can be measured by both subjective and objective measures (Murphy et al. 1996; Fabling & Grimes 2007). The former is based on opinion or estimates provided by respondents who are asked to assess their firm’s performance (Covin et al. 1990); the latter is based on independent observable facts, either by asking respondents to report absolute values or by accessing secondary sources (Vorhies & Morgan 2003). According to Venkatraman and Ramanujam (1986), financial performance represents the narrowest conceptualisation of firm performance. The research tried to establish a more comprehensive firm performance construct by adding strategic performance measures. Employing both performance measures enables a more rigorous and reliable evaluation of the effect of the studied variables on firm performance.

As the sample is comprised of firms from across industries, firm performance evaluations were more expressive when assessed comparatively. Subjective measures of firm
performance captured the respondent’s perception of the standard of their company’s financial and strategic performance compared with those of their main competitors in the past three years. The financial performance items asked respondents to compare their cost of sales, profitability and return on investment relative to major rivals (Roth et al. 1991; Samiee & Roth 1992; Cavusgil & Zou 1994). Such items were used as a measure of financial performance because they focus on the financial rate of return of the firm. Strategic performance, on the other hand, incorporated market share, competitiveness, strategic position and leadership position relative to major rivals (Porter 1985, 1986; Cavusgil & Zou 1994). Table 4.4 shows firm performance constructs in the questionnaire.

Table 4.4: Firm Performance Scale

<table>
<thead>
<tr>
<th>Firm Performance 1=Strongly Disagree, 7=Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are seven (7) descriptive statements in this section to describe your organisational performance. Please evaluate the performance of your business over the previous three years relative to your major competitors.</td>
</tr>
</tbody>
</table>

Financial performance

1 Compared to major competitors, sales of our organisation have been increasing rapidly.

2 The operations of our organisation are very profitable relative to our major competitors.

3 Our return on investment (ROI) is higher than that of our major competition.

Strategic performance

4 The strategic position of our organisation in the market is very strong.
Relative to our major competitors, our organisation is very competitive in the market.

Our market share is very high relative to our major competitors.

We have been able to build a leadership position in our industry.

4.8.5 Control variables

The research controlled for possible alternative explanations that have been suggested in the literature to influence firm performance. Boulding and Staelin (1990) identify a number of control variables deemed to influence the level of firm performance. Aside from CFO attributes (gender, age), this research included four firm-specific characteristics (firm size, firm age, past performance and type of industry) as control variables. Controlling for these effects allows the researcher to better identify the real impact of the model’s focal construct.

Firm size was measured by full time number of employees (Covin et al. 2006; Casillas et al. 2010). The scale is consistent with ABS (2001) classification. Compared to younger firms, older firms are more likely to have employees with longer tenure, which is linked with firm performance rates.

Firm age was measured as the number of years the firm had been in existence (Covin et al. 2006; Casillas et al. 2010). During the life of a firm, the level of firm performance may shift. When firms are in the start-up and development stages of their life cycle, they do not have an accumulation of knowledge and experience needed to generate superior performance. Conversely, well-established firms are more likely to have access to accumulated resources, learning and experience than their undeveloped counterparts. As a result, they have more resource availability to grab business opportunities in the market.
Previous studies have recognised that firm performance is likely to be influenced by past performance (example, Zahra et al. 2004). It may influence a firm’s ability and knowledge as firms that are more successful often have greater opportunities to enhance their financial resources, learning orientation and experience. Based on these arguments, past performance over the last three years was included as a control variable in the regression analyses.

Previous empirical examination of firms shows that various management demographic characteristics of key informants can exert significant influence on firm performance (Cheng et al. 2010). CFO age and gender were chosen as control variables for this research in order to control for effects on firm performance. Controlling for the age of the CFO was thought important as more mature CFOs may have better ability and experience to enhance their firm’s business. Consistent with previous research, respondent’s age was calibrated in years (Deakins et al. 2012). Finally, the effect of CFO gender on firm performance was also controlled for, in case gender differences in perceptions, skills and understandings influence the results.

4.8.6 Dummy variables: industry, firm size and education

Dummy variables were used to capture differences in types of industry, firm size and education. Types of industry were: Agriculture, Forestry, Fishing, Mining, Manufacturing, Construction, Wholesale Trade, Retail Trade, Accommodation/Cafe/Restaurant, Information Technology, Communications, Finance and Insurance, Property and Business Services, Education, Health and associated services, Cultural and Recreational, and Personal and Other Services. Firm size was categorised as if a firm employed less than five, five to twenty, and twenty one to two hundred full time employees. The levels of education of the CFO categories were: less
Higher School Certificate (HSC), HSC, tertiary, MBA, Doctor of Philosophy (PhD)/doctorate and CPA/Chartered Accountant (CA).

4.9 Reliability and Validity of the Measures

Reliability and validity are two important elements in measurement instruments. Reliability comprises test-retest scoring agreement, equivalent forms and internal consistency. Validity includes content, construct and criterion related validity.

4.9.1 Reliability

Reliability refers to the degree of dependability and consistency of a scale that assesses a latent construct (Gatewood & Field 1990; Hair et al. 2006). Generally, there are two common aspects of reliability, repeatability and internal consistency (Zikmund 2003).

Cronbach’s coefficient alpha ($\alpha$) is a widely used measure of scale internal consistency reliability. Cronbach’s alpha “indicates how well the items in a set are positively related to one another” (Sekaran & Bougie 2010, p. 324). In other words, it provides a summary measure of the intercorrelations that exist among a set of items to assess the reliability of the scale. Each critical construct in the present research was examined using Cronbach alpha reliability tests.

Different levels of internal consistency have been pointed out by previous scholars, ranging from 0.50 to 0.80. Generally, if the alpha value is greater than 0.7, the scale has reliability (Nunally 1967). Carmines and Zeller (1979) recommend 0.8 as an acceptable level of reliability for Cronbach’s alpha, while Hair et al. (1998) postulate the minimum acceptable level of reliability for Cronbach’s alpha is 0.6. Likewise, Nunnally (1978) suggests that values of above 0.5 to 0.6 are still sufficient for early stages of basic
research. However, if the value of alpha is low, some items should be eliminated because they do not share equally in the common core (Churchill & Iacobucci 2002).

According to Easterby-Smith et al. (2002) reliability and validity process should be made at the pilot stage before the main data collection phase. Cronbach’s alphas were calculated to assess the internal consistency of each scale in the pilot study. Table 4.5 shows that Cronbach’s alpha coefficients for total financial resources, learning orientation and firm performance. Most were above 0.70, indicating that the scales have an acceptable level of reliability.

Specifically, Cronbach’s alpha coefficient for overall financial resources was 0.72. At the factor level, the Cronbach’s alpha coefficient for financial knowledge was 0.71, while Cronbach’s alpha coefficients for financial awareness was 0.72. Although, financial attitude did not achieve an acceptable value of Cronbach’s alpha (0.47), all items of this construct were retained given that this measure was adopted from a well-validated literature and its conceptual importance to the research. The financial attitude measure has established good levels of reliability and validity in numerous studies. Furthermore, it is common to have low reliabilities for scales of three items (Hinkin 1998). For learning orientation the Cronbach’s alpha coefficient was 0.92 and 0.84 for firm performance.
Table 4.5: Results of Cronbach’s Alpha Coefficients (N=25)

<table>
<thead>
<tr>
<th>Measures</th>
<th>Number of Items</th>
<th>Coefficients ($\alpha$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources</td>
<td>13</td>
<td>0.72\textsuperscript{a}</td>
</tr>
<tr>
<td>Financial knowledge</td>
<td>5</td>
<td>0.71\textsuperscript{b}</td>
</tr>
<tr>
<td>Financial attitude</td>
<td>3</td>
<td>0.47</td>
</tr>
<tr>
<td>Financial awareness</td>
<td>5</td>
<td>0.72</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>12</td>
<td>0.92</td>
</tr>
<tr>
<td>Firm performance</td>
<td>7</td>
<td>0.84</td>
</tr>
</tbody>
</table>

Notes: \textsuperscript{a}after deletion of FK5  
\textsuperscript{b}after deletion of FK5

4.9.2 Validity

Validity is an important criterion for evaluating the quality of research instruments. It considers how well the measures of the underlying factors accomplish their intended purposes.

Validity on its part may be assessed internally or externally. Quoting Cook and Campbell’s (1979, p. 37) definition, internal validity refers “to the approximate validity with which we infer that a relationship between two variables is causal or that the absence of a relationship implies the absence of cause”. External validity by contrast refers “to the approximate validity with which we can infer that the presumed causal relationship can be generalised to and across alternate measures of the cause and effect and across different types of persons, settings, and times” (Cook & Campbell 1979, p. 37). Generally, there are three types of validity measured: content, construct and criterion validity (Hair et al. 1992).
Content validity is the main concern in the development of items and should be constructed into the measure through items development (Hinkin 1998). It requires an adequate and representative set of items that reflect a specific domain of the content (Hair et al. 2010). Generally, there is no accepted quantitative index of content validity of instruments (Hinkin 1998), a judgmental process must be used in validating the scale (Stone 1978). The measure must adequately capture the subject of interest and no extraneous content (Hinkin 1998). The researcher may determine the validity through a careful definition of the subject interest, the items to be scaled and the scales to be used (Sekaran 1992).

The content validity of the scales in the present research was validated through several processes. First, most of the measures (learning orientation and firm performance) were based on well validated measurement instruments from literature. Second, the researcher consulted several practitioners and academic experts in the field of management, accounting and research methodology to evaluate the content validity. Finally, the measure was pilot tested with a convenience sample of people who had managerial experience. The results showed that the measures covered the important elements identified within the research, validating the content of the scale. Minor modifications were made before the measures were finally distributed in the main data collection.

Criterion validity relates to the relationship between a measure and another independent measure (Hinkin, 1998). There are two forms of criterion validity: concurrent and predictive. Concurrent validity is established when the scale discriminates individuals who are known to be different (Sekaran, 2003). Whereas, predictive validity refers to the ability of the measuring instrument to differentiate among individuals with reference to a future criterion (Sekaran, 2003).
Several important issues that impact scale development were considered to ensure validity criterion. First, it was ensured that the measures were suitable and applicable to the sample respondents chosen (CFOs in SMEs across industries in Australia). Second, negatively worded items were employed. The reverse-scored items were used mainly to attenuate response pattern bias and reduce systemic error (Idaszak & Drasgow 1987). Third, the questionnaire was designed to be as short and concise as possible (Hinkin 1998). The measures of a single construct varied in length from three items to five items. Generally, long measures lead the respondents to either not entirely complete the survey or not return it at all. It can create problems with respondent fatigue or response biases (Anastasi 1976). Long measures can also build redundancy and increased chances that they tap more than one conceptual dimension (Hinkin 1998). Practically, long measures require more time in the development and administration of a scale (Carmines & Zeller 1979), jeopardising the criterion validity. Fourth, closed-ended questions were used because they are direct and quick to respond to, as well as easy to make a comparison when analysing results. With respect to the scaling of items, seven point Likert scales were used, which also contributed to improving the criterion validity. Fifth, the sample size of 241 observations was sufficient to produce accurate results in factor analysis. For factor analysis, a minimum sample size of 150 has been recommended as long as item intercorrelations are reasonably strong (Guadagnoli & Velicer 1988).

The scales developed are also shown to have criterion validation by examining the correlational analysis (the details of these results are presented in Chapter 5 Section 5.9.2). Construct validation is the main objective of the scale development (Cronbach & Meehl 1955). Factor analysis is the most generally used methodical technique for data reduction and refining constructs (Ford et al. 1986). The present research employed the factor analysis technique to assess the solidity of the factor structure and provide information to facilitate the refinement of a new measure (Hinkin 1998). Parallel analysis
(PA) was used as a process and criteria for identifying the number of components to retain. The Promin-Weighted Varimax rotation was undertaken to assess the construct validity of each factors. Items that had factor loadings lower than absolute 0.3 were omitted. The results showed that majority of the items loaded reasonably well on each construct, which indicate that they converge on some mutual point. This provided a relatively clear picture of the factorial stability of the measures. An elaboration of these analyses is in Chapter 5 Section 5.9.

To sum up, all of these stages demonstrated that the measures in this research have validity and reliability, providing strong evidence of the stability of the measures. For content validity, a thorough review of the literature in the research field, a pre-test as well as a pilot study were carried out. To achieve criterion validity, the assessment of the properties of the scales and the correlation coefficients between measures were calculated. Factor analysis was employed to provide evidence of construct validity.

4.10 Statistical Procedures

Data analyses were undertaken in four principal stages; data screening, factor analysis, multiple regression analysis and moderated regression analysis, using FACTOR 9.2 and Statistical Analysis Software Program (SPSS) 21.0. Descriptive statistics were calculated as a preliminary analysis to analyse and interpret the statistical attributes of the variables and sample.

As part of the preparation and screening process, the data was tested for violations of statistical assumptions, and issues such as missing data, outliers and multicollinearity. This evaluation was carried out to ensure fulfilment of some assumptions in running the
regression analysis. Factor analysis was employed to investigate the financial resources construct.

On the basis of the research theoretical foundation, multiple and moderated regression analyses were used to test the hypotheses. Multiple regression analysis was used to determine the direct relationships of financial resources, learning orientation, CFO experience and firm performance variables, and moderated regression to test hypothesised contingency relationships.
4.11 Summary

This chapter presented the research paradigm and explained the four stages of research that were conducted in the study. The research was conducted using the positivist paradigm and quantitative approach. The ontological assumption of objective-reality fits with the belief that quantified elements are pertinent for acquiring knowledge. In addition, the epistemological assumption utilised quantified operational logic to analyse the observed phenomena, using deductive reasoning to establish valid and reliable causal explanations. A questionnaire survey was chosen to collect data at the company level. Prior to data collection, the questionnaire was pre-tested and piloted with industry experts and higher degree research students. Data was collected from SMEs in Australia. The questionnaire was sent out through email and mail survey. The respondents were contacted with follow-up email and telephone calls to encourage a higher response rate resulting in a substantial dataset to test the hypotheses. The statistical analyses were undertaken using FACTOR 9.2 and SPSS version 21.0. The following chapter discusses the findings derived from the quantitative data.
5.1 Introduction

The objective of this chapter is to present and discuss the results of the analyses conducted in order to test the hypotheses formulated in Chapter 3. This chapter is structured as follows: Section 5.2 discusses the response rates of the quantitative data collection, and Section 5.3 reports on the response bias test. The results of the demographic characteristics of respondents and firms surveyed are discussed in Section 5.4 and 5.5. Section 5.6 presents the means and standard deviations of the constructs used in this study. Section 5.7 describes the results from t-test analyses based on demographic and firm characteristics of the sample. Section 5.8 discusses the preliminary data examination procedures. Section 5.9 presents the reliability and validity of the data using factor analysis and the Cronbach alpha test. Section 5.10 presents the regression analyses that include the simple model, and initial comprehensive model, consisting of all variables. Section 5.11 reports the results of the hypotheses testing relating to the assessment of main effects and interaction effects on firm performance. Finally, Section 5.12 summarises the chapter.

5.2 Response Rate

The survey was conducted using a two-stage approach. In Stage I, questionnaires were distributed through email in May 2013 to the key financial decision maker of the respective firms. A list of 3,579 firms was available on the ASX database. A screening process was undertaken to ensure that only SMEs were included in the research. This resulted in a pool of 586 firms that were actively operating in November 2012. Of the
586 identified respondents who received the questionnaires, a total of 24 responded. A follow up email and telephone call was conducted between May and Jun 2013, which generated another 18 responses. After exclusion of unusable surveys, only 25 surveys were usable. The low response rate was probably due to the timing of data collection. The period between May 2013 and Jun 2013 was the fiscal year-end closing for many of the firms. In follow up feedback, many felt that there was not enough time in their busy schedules to respond to the survey.

Sampling expanded beyond the ASX in the stage 2, to achieve a sufficient sample size. A total of 2,269 questionnaires were mailed in August 2013, using the ASIC database. Of these, 293 respondents participated in the survey, with 216 valid and complete responses. These efforts gave a response rate of 10 percent. Another 77 questionnaires were returned uncompleted due to one of the following: the firm was no longer carrying on business or in operation, the person had left the firm, it was firm policy not to respond to such surveys, incorrect address, incomplete data or the firm fell under the category of large business as they had more than 200 employees.

All in all, out of a total of 2,855 surveys distributed, 335 responded. A total of 94 questionnaires were invalid for various reasons (usually missing data on key variables), and therefore the final sample for analysis totalled 241 usable surveys. This represents an effective response rate of 8%. We note that the actual response is higher given that undeliverable, returned mail can actually be subtracted from the sample size. The 8% number represents the lowest possible, and most rigorous, estimate of the response rate. This response rate is still consistent with similar studies that have used survey methods of senior executives in American firms (Hambrick et al., 1993). Hence, the response rate of the present research is considered acceptable. Table 5.1 presents the breakdown of respondents for Stage I and Stage II of the data collection.
Table 5.1: Sample and Response Rate

<table>
<thead>
<tr>
<th>Method of survey</th>
<th>Number of firms</th>
<th>Number of responses</th>
<th>Invalid responses</th>
<th>Usable responses</th>
<th>Response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email survey</td>
<td>586</td>
<td>42</td>
<td>17</td>
<td>25</td>
<td>4.3</td>
</tr>
<tr>
<td>Mail survey</td>
<td>2,269</td>
<td>293</td>
<td>77</td>
<td>216</td>
<td>9.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,855</strong></td>
<td><strong>335</strong></td>
<td><strong>94</strong></td>
<td><strong>241</strong></td>
<td><strong>8.4</strong></td>
</tr>
</tbody>
</table>

5.3 Non Response Bias

An independent sample t-test was conducted to compare the scores of all measured variables between the two groups of data collection to test for any statistically significant differences between the email and mail questionnaires. Different methods of data collection may produce different outcomes (Dillman 2000). Table 5.2 presents the results between these two groups on the three main variables of this research.

Table 5.2: Mean Comparisons of the Variables between Email and Mail Questionnaire

<table>
<thead>
<tr>
<th>Variables</th>
<th>Email Mean</th>
<th>Mail Mean</th>
<th>T-value</th>
<th>Significant (2-tailed)</th>
<th>Effect Size η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources</td>
<td>5.182</td>
<td>5.116</td>
<td>0.473</td>
<td>0.637</td>
<td>-</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>4.833</td>
<td>5.228</td>
<td>-2.166</td>
<td>0.031</td>
<td>0.02</td>
</tr>
<tr>
<td>Firm performance</td>
<td>3.931</td>
<td>4.611</td>
<td>-3.189</td>
<td>0.002</td>
<td>0.04</td>
</tr>
</tbody>
</table>

N | 25 | 216 |
The t-tests for financial resources showed an absence of significant differences between the means, the Significant (2-tailed) value is 0.64. As this value is above the required cut off of 0.05, therefore there was not a statistically significant difference in the mean financial resources scores for email and mail survey.

Conversely, there was a statistical significant difference in the mean scores between these two groups on learning orientation (t (241) = -2.166, p=0.031) and firm performance (t (241) = -3.189, p=.002). However, using the guidelines suggested by Cohen (1988), the magnitude of difference in the means was small. This is verified with the eta squared value on the effect size for the independent samples t-test. Eta squared is described as the “amount of the total variance in the dependent variable that is predictable from knowledge of the levels of the independent variable” (Tabachnick & Fidell 1996, p. 53). The eta squared value for learning orientation is 0.02, while for firm performance is 0.040. Using the guideline suggested by Cohen (1988), these values are interpreted as having small effect ($\eta^2 = 0.01$). Thus, the sample appears to be relatively free from non-response bias.

5.4 Demographic Profile of Informants

This research is conducted at the company level but a brief description of the actual respondents, or better informants, provides more background to the data. Table 5.3 shows the demographic profile of the informants. In terms of gender distribution, out of the 241 informants, 82% of the informants were male and 18% were female. This indicates that the senior financial function in the small and medium business sector in Australia is dominated by males. Further, results exhibit that the firm’s financial decision-makers were generally older than 51 years old (54% of firms). Informants aged between 41-50 years old represented 35% of the sample. The third largest group was between the ages of
31-40 years (10% of the sample). The majority of the informants were well educated. Specifically, 52% of the respondents had CPA or CA qualifications. This was followed by those with a tertiary qualification (29% of the sample), with 13% having an MBA, and 3% with a PhD or doctorate qualification; only 4% did not have any tertiary qualification.

Approximately 35% of the informants had prior CFO experience (or been in a similar position) of more than 20 years. This can build financial management skills that may serve as an advantage to enhance firm performance. Another 20% had between 15-20 years of work experience as CFO or key financial decision maker, 16% had CFO work experience between 10-15 years, followed by 14% between 7-9 years and 8% of the respondents had CFO work experience between 4-6 years. The remaining 8% had the experience less than 3 years.
Table 5.3: Demographic Characteristics of Informants

<table>
<thead>
<tr>
<th>Demographic Profile</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>197</td>
<td>81.7</td>
<td>82</td>
</tr>
<tr>
<td>Female</td>
<td>44</td>
<td>18.3</td>
<td>100</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 to 30 years</td>
<td>3</td>
<td>1.2</td>
<td>1</td>
</tr>
<tr>
<td>31 to 40 years</td>
<td>24</td>
<td>10.0</td>
<td>11</td>
</tr>
<tr>
<td>41 to 50 years</td>
<td>84</td>
<td>34.9</td>
<td>46</td>
</tr>
<tr>
<td>Above 51 years</td>
<td>130</td>
<td>53.9</td>
<td>100</td>
</tr>
<tr>
<td><strong>Highest academic qualification</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than HSC (year 12)</td>
<td>3</td>
<td>1.2</td>
<td>1</td>
</tr>
<tr>
<td>HSC (year 12)</td>
<td>6</td>
<td>2.5</td>
<td>4</td>
</tr>
<tr>
<td>Tertiary</td>
<td>69</td>
<td>28.6</td>
<td>32</td>
</tr>
<tr>
<td>MBA</td>
<td>31</td>
<td>12.9</td>
<td>45</td>
</tr>
<tr>
<td>PhD or Doctorate</td>
<td>6</td>
<td>2.5</td>
<td>48</td>
</tr>
<tr>
<td>CPA or CA</td>
<td>126</td>
<td>52.3</td>
<td>100</td>
</tr>
<tr>
<td><strong>Years of work experience as CFO</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 3 years</td>
<td>18</td>
<td>7.5</td>
<td>8</td>
</tr>
<tr>
<td>4 to 6 years</td>
<td>19</td>
<td>7.9</td>
<td>15</td>
</tr>
<tr>
<td>7 to 9 years</td>
<td>33</td>
<td>13.7</td>
<td>29</td>
</tr>
<tr>
<td>10 to 15 years</td>
<td>39</td>
<td>16.2</td>
<td>45</td>
</tr>
</tbody>
</table>
5.5 Firm Profile

As states before, this study is at the company level. Table 5.4 displays a descriptive profile of the firms surveyed. Approximately 65% of the firms were 15 years old and above, while those who had been in operation for less than 3 years were only 3% of the sample. Most of the businesses were in mining (13%) and health and community service (12%). 22% of respondents (the term ‘respondent’ is also used from here on but note that the respondent has scored the company) indicated “other” businesses such as oil and gas, hospitality and biotechnology. The majority of firms (61%) had 21 to 200 full time employees. Thirty percent of the respondents employed between 6-20 employees. Only 10% of the firms had fewer than 5 employees. Of the firms surveyed, 23% of the businesses had total sales ranged between $10 million to $25 million, whilst 20% of the firms indicated a value of more than $25 million. A few (1%) of the firms did not want to disclose their total sales information. This may be due to the sensitive nature of the information.

Table 5.4: Firm Profile

<table>
<thead>
<tr>
<th>Firm Profile</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 3 years</td>
<td>7</td>
<td>2.9</td>
<td>3</td>
</tr>
</tbody>
</table>

(N=241)
<table>
<thead>
<tr>
<th>Age group</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 to 7 years</td>
<td>38</td>
<td>15.8</td>
<td>19</td>
</tr>
<tr>
<td>8 to 11 years</td>
<td>28</td>
<td>11.6</td>
<td>30</td>
</tr>
<tr>
<td>12 to 14 years</td>
<td>12</td>
<td>5.0</td>
<td>35</td>
</tr>
<tr>
<td>Above 15 years</td>
<td>156</td>
<td>64.7</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of industry</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry, Fishing</td>
<td>8</td>
<td>3.0</td>
</tr>
<tr>
<td>Mining</td>
<td>32</td>
<td>13.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>17</td>
<td>7.1</td>
</tr>
<tr>
<td>Construction</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Accommodation, Cafe, Restaurant</td>
<td>6</td>
<td>2.5</td>
</tr>
<tr>
<td>Information Technology</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Communications</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Finance &amp; Insurance</td>
<td>29</td>
<td>12.0</td>
</tr>
<tr>
<td>Property &amp; Bus Services</td>
<td>9</td>
<td>3.7</td>
</tr>
<tr>
<td>Education</td>
<td>18</td>
<td>7.5</td>
</tr>
<tr>
<td>Health &amp; Community Services</td>
<td>30</td>
<td>12.4</td>
</tr>
<tr>
<td>Cultural &amp; Recreational</td>
<td>19</td>
<td>7.9</td>
</tr>
<tr>
<td>Personal and Other Services</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Other</td>
<td>53</td>
<td>22.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of full time employees</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5</td>
<td>23</td>
<td>9.5</td>
<td>10</td>
</tr>
<tr>
<td>5 to 20</td>
<td>72</td>
<td>29.9</td>
<td>39</td>
</tr>
<tr>
<td>21 to 200</td>
<td>146</td>
<td>60.6</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 5.5 reports the means and standard deviations (SD) for the scales used to measure financial resources, learning orientation and firm performance in this research. With regard to the mean scores for each dimension of financial resources, financial awareness has the highest mean score of 5.71 (SD = 0.9551), for financial knowledge the mean was 5.65 (SD = 0.8281) and for financial attitude it was 3.26 (SD=1.2399). These results indicate that the respondents value their financial awareness and financial knowledge more than their financial attitude. The mean score for learning orientation was 5.19 (SD = .8663). These analyses point out that the respondents value commitment to learning more than open mindedness and shared vision. Finally, the mean score for firm performance was 4.54 (SD = 1.0263). The findings show that the respondents weight their strategic performance more than financial performance.
### Table 5.5: Means and Standard Deviations of the Constructs

<table>
<thead>
<tr>
<th>Measures</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources</td>
<td>5.1216</td>
<td>0.6541</td>
</tr>
<tr>
<td>Financial knowledge</td>
<td>5.6515</td>
<td>0.8281</td>
</tr>
<tr>
<td>Financial attitude towards risk taking</td>
<td>3.2573</td>
<td>1.2399</td>
</tr>
<tr>
<td>Financial awareness of financial reports</td>
<td>5.7104</td>
<td>0.9551</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>5.1874</td>
<td>0.8663</td>
</tr>
<tr>
<td>Commitment to learning</td>
<td>5.3589</td>
<td>1.0100</td>
</tr>
<tr>
<td>Open mindedness</td>
<td>5.0239</td>
<td>0.9570</td>
</tr>
<tr>
<td>Shared vision</td>
<td>5.1795</td>
<td>1.1073</td>
</tr>
<tr>
<td>Firm performance</td>
<td>4.5388</td>
<td>1.0263</td>
</tr>
<tr>
<td>Financial performance</td>
<td>4.2227</td>
<td>1.1004</td>
</tr>
<tr>
<td>Strategic performance</td>
<td>4.7759</td>
<td>1.1780</td>
</tr>
</tbody>
</table>

(N=241)

### 5.7 T-Tests

Independent sample t-tests were conducted to further investigate the profile of the sample, in particular if there were statistical differences in the main variables of this research (financial resources, learning orientation and firm performance) based on the size of firms and gender.

With regards to gender (see Table 5.6), there was no statistically significant difference in the mean financial resources scores for males (M=5.09, SD=0.68) and females (M=5.27, SD=0.51; t (241) =1.72, p=0.09). The t-tests also showed an absence of significant differences in the mean firm performance scores for males (M=4.52, SD=1.05) and
females (M=4.62, SD=0.94; t (241) =0.58, p=0.56). Conversely, there was a statistical significant difference in the mean scores between these two groups on learning orientation (t (241) = -2.30, p=0.01). Still, using the guidelines suggested by Cohen (1988), the magnitude of difference in the means was small. This is verified with the eta squared value on the effect size for the independent samples t-test. The eta squared value for learning orientation is 0.02. Overall, there are some but small differences between the genders on the key variables.

Table 5.6: Mean Comparisons of the Variables between Male and Female

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male Mean</th>
<th>Female Mean</th>
<th>T-value</th>
<th>Significant (2-tailed)</th>
<th>Effect Size η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources</td>
<td>5.0875</td>
<td>5.2745</td>
<td>-1.722</td>
<td>0.086</td>
<td>-</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>5.1273</td>
<td>5.4564</td>
<td>-2.298</td>
<td>0.022</td>
<td>0.02</td>
</tr>
<tr>
<td>Firm performance</td>
<td>4.5207</td>
<td>4.6201</td>
<td>-0.580</td>
<td>0.562</td>
<td>-</td>
</tr>
<tr>
<td>N</td>
<td>197</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Concerning firm size (see Table 5.7), there was no statistically significant difference in the mean financial resources scores for small-sized enterprises (M=5.09, SD=0.65) and medium-sized enterprises (M=5.14, SD=0.66; t (241) =0.65, p=0.51). Further, the t-tests showed an absence of significant differences in the mean learning orientation scores for small-sized enterprises (M=5.17, SD=0.88) and medium-sized enterprises (M=5.20, SD=0.86; t (241) =0.03, p=0.79). Conversely, there was a statistical significant in the mean scores between these two groups on firm performance (t (241) = -2.36, p=0.02). Nonetheless, the magnitude of difference in these values is interpreted as having small effect (η² = 0.02).
Table 5.7: Mean Comparisons of the Variables between Small and Medium Enterprises

<table>
<thead>
<tr>
<th>Variables</th>
<th>Small Mean</th>
<th>Medium Mean</th>
<th>T-value</th>
<th>Significant (2-tailed)</th>
<th>Effect Size η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources</td>
<td>5.0874</td>
<td>5.1438</td>
<td>-0.653</td>
<td>0.514</td>
<td>-</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>5.1693</td>
<td>5.1992</td>
<td>-0.0261</td>
<td>0.794</td>
<td>-</td>
</tr>
<tr>
<td>Firm performance</td>
<td>4.3473</td>
<td>4.6634</td>
<td>-2.358</td>
<td>0.019</td>
<td>0.02</td>
</tr>
</tbody>
</table>

5.8 Data Examination and Cleaning

Prior to multivariate analyses, the data was examined using SPSS 21.0 to check that the analyses are not violating any of the assumptions underlying the statistical techniques made to address the research questions. The relevant preliminary analyses such as descriptive statistics, missing values, normality and common method variance are described in this section.

5.8.1 Missing values

Missing data usually occurs when a respondent fails to answer some survey questions. The approach to resolve this issue depends on the patterns of the missing values (Tabachnick & Fidell 1996). In the present research, only the completed questionnaires were considered in the analyses. Any questionnaires with missing data that related to the main constructs of the research were excluded from the analysis. The screening process showed that three respondents failed to complete the question related to their firm’s annual total sales. No treatment was employed to replace this missing value because by fixing the missing data with a certain analyses may generate biased results.
5.8.2 Normality

Normality can be assessed based on skewness and kurtosis values (Hair et al., 2010). According to Hair et al. (2003) skewness values within the range of -1 to +1 and kurtosis values within -3 to +3 indicate an acceptable range of normality. Kline (2005) on the other hand posits that the acceptable absolute value of skewness and kurtosis values should be less than three and ten respectively to indicate normality. In general, a variable with an absolute value greater than 20.0 may potentially suggest a more severe problem related to normality (Kline 2005). However, Tabachnick and Fidell (1996, p. 73), posit that with reasonably large samples of two hundred or more cases, skewness will not “make a substantive difference in the analysis”.

The shapes of the distributions were examined using both skewness and kurtosis. From Table 5.8, it can be seen that the skewness ranges between −1.05 and -0.28, and the kurtosis ranges from −0.55 to 2.35, which are all well within the thresholds proposed by Kline (2005). No problems requiring attention are indicated.

Table 5.8: Descriptive Statistics

<table>
<thead>
<tr>
<th>Research variables</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources</td>
<td>2.46</td>
<td>6.62</td>
<td>5.12</td>
<td>0.6558</td>
<td>-0.683</td>
<td>1.09</td>
</tr>
<tr>
<td>Financial knowledge</td>
<td>2.60</td>
<td>7.00</td>
<td>5.65</td>
<td>0.8287</td>
<td>-0.746</td>
<td>0.719</td>
</tr>
<tr>
<td>Financial attitude</td>
<td>1.00</td>
<td>6.67</td>
<td>3.25</td>
<td>1.2391</td>
<td>0.348</td>
<td>-0.550</td>
</tr>
<tr>
<td>Financial awareness</td>
<td>2.20</td>
<td>7.00</td>
<td>5.71</td>
<td>0.9569</td>
<td>-0.670</td>
<td>0.330</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>1.83</td>
<td>6.83</td>
<td>5.19</td>
<td>0.8678</td>
<td>-1.047</td>
<td>2.350</td>
</tr>
<tr>
<td>Firm performance</td>
<td>1.29</td>
<td>6.86</td>
<td>4.53</td>
<td>1.0263</td>
<td>-0.279</td>
<td>0.290</td>
</tr>
</tbody>
</table>
5.8.3 Common method variance

Questionnaires offer advantages such as the ability to efficiently reach large samples and to generalise findings across multiple populations. Yet questionnaires are inclined to have weaknesses such as common method variance (CMV). The use of single respondent to answer all questions might produce common method variance, which may lead to inaccurate conclusions of the relationships between variables by inflating or deflating results. Common method variance is the amount of spurious correlation between variables that is created by using the same method.

Following the suggestion of Podsakoff et al. (2003), the Harman single-factor test is used to identify and measure variables that reflect the observed constructs in this research. This is the most commonly used technique, used by past scholars in entrepreneurship to assess the presence of CMV (for example, Norris 2008; Cheung & Wong 2011). This test requires loading all the measures into a factor analysis, with the assumption that the presence of CMV is evidenced by the emergence of a factor or a general factor, accounting for the majority of covariance among measures (Podsakoff et al. 2003).

All variables were loaded into a factor analysis, using parallel analysis with unrotated factor solution. The results from the extraction sums of squared loading showed that only 29.2% of variance is attributed to a general factor. Thus, it showed no CMV problem in this data.

5.9 Factor Analysis Scales Verification

Factor analysis (FA) was used to explore the underlying structure of the data, using the factor analysis package Factor 9.2 (Lorenzo-Seva & Ferrando 2006). The FA technique was preferred over principal component analysis (PCA) as the most appropriate
dimension reduction technique. FA assists the identification of the factors that explain the covariances among dimensions (Kahn 2006) and can help assess the internal reliability of the instruments (Tabachnick & Fidell 2001). FA results in solutions that are easier to interpret and to report, where a set of unobserved factors reconstructs the complexity of the observed data in an essential form (Matsunaga 2010). In other words, the factor solution extracted from the FA retains all important information available from the given set of variables, while unnecessary information and noise induced by measurement errors are reduced. On the other hand, principal component analysis is used to summarise the information available from the original data and reduce it into a smaller number of components (Fabrigar et al. 1999). Six criteria were taken into consideration for extracting factors in the FA: (1) an ordered rotated loading matrix with small loadings below 0.3 and loaded on multiple factors suppressed, (2) the correlation matrix, (3) results of the Kaiser-Meyer-Olkin (KMO) and Bartlett’s Test, (4) eigenvalues with factor and total variance explained, (5) communalities and (6) the factor's internal consistency as measured by Cronbach's alpha.

With regards to the covariance matrix, this research used Polychoric correlations in place of Pearson correlations to address the issue of ordinal data. The latter require quantitative variables measured at interval level and the correlation between these variables has to be monotonic (Holgado-Tello et al. 2010). Regardless of the number of components, the results obtained by Polychoric correlations provide a more accurate reproduction of the measurement model used to generate the data (Holgado-Tello et al. 2010). Polychoric correlations assume that the continuous measure underlying the categorical data is normally distributed.

Parallel analysis (PA) was used as a procedure and criteria for determining the number of factors or components to retain. PA uses the Monte Carlo method in which parallel data
sets are randomly generated and factor analysed, in order to determine whether the number of dimensions retained is suitable (Horn 1965). For factor extraction, the unweighted least square (ULS) was used to complement the PA. Factor extraction consists of determining the smallest number of factors that can be used to represent the inter-relations among the set of variables (Pallant 2001). Factor rotation was not required because the PA was purely to determine the most appropriate number of factors for the instruments. The PA results indicated that the number of factors was one for each scale (see below). Minimum Rank Factor Analysis (MRFA) therefore was conducted on the extracted data. According to Lorenzo-Seva and Ferrando (2006) MRFA is the only factor technique that allows one to compute the proportion of variance explained by each factor, under the assumption of multivariate normality (Shapiro & Berge 2002). For any given number of factors, MRFA provides optimal communalities for an observed covariance matrix in the sense that the unexplained common variance with that number of factors is minimised (Shapiro & Berge 2002). Thus, it becomes possible to distinguish the explained common variance from the total common variance.

After the extraction phase, the results were rotated to achieve maximum simplicity and interpretability (Lorenzo-Seva & Ferrando 2006). Generally, oblique rotation is a common approach in factor analysis. However, Lorenzo-Seva (1999) proposed a different rotation procedure, Promin, as an alternative, not only to oblique but also to other well-known procedures. Promin uses Weighted Varimax as a pre-rotation orthogonal method in the analyses. Promin performs better than any other rotation procedure because it rotates the solutions closer to the true solutions, particularly when only a few variables in the pattern are complex variables. Furthermore, when there is a high correlation between factors in the score, Promin does not depend heavily on the previous orthogonal pattern (Lorenzo-Seva 1999). Orthogonal is fundamentally different from oblique rotation because orthogonal rotations assume that the underlying constructs
are independent (Tabachnick & Fidell 1996). This is a critical point that distinguishes orthogonal from oblique rotation. Thus, for factor interpretation, the Promin-Weighted Varimax rotation was used in the present research. The relationship of each variable to the underlying factor is weighed by factor loading. Bryman and Cramer (1997) broadly defined factor as a list of inter-correlated items that clustered together, on the other hand, loadings is the relationship between each item and a factor (Bryman & Cramer 2005, p. 331). The nature of items with high loadings on the same factor is the basis for defining that factor. Loadings above 0.60 are usually considered high (Kachigan 1991) and those below 0.30 low (Hatch & Lazaraton 1991).

The other issue to be concerned with is the strength of the relationship among the items. The factorability of the items was evaluated by using Bartlett’s test of Sphericity (Bartlett 1954) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser 1970). The Bartlett’s test of Sphericity value should be significant (p<0.05) to be considered appropriate. The KMO index ranges from 0 to 1, with 0.6 suggested as the minimum value for a good factor analysis (Tabachnick & Fidell 1996). With respect to eigenvalues, a generally used rule of thumb states that only factors with the eigenvalue of 1.0 (or more) are retained for further analysis (Kahn 2006). The eigenvalues represent the amount of the total variance explained by that factor (Hair et al. 2006). Factors with low eigenvalues are contributing small explanation of variances in the variables, and can be viewed as less reliable factors. Table 5.9 shows the rotated loadings, the communality of each item, the common variance explained by each rotated factor and the reliabilities of the rotated factor score.

The items assigned to financial resources, learning orientation and firm performance variables have been subjected to factor analysis to ensure that they are reliable indicators of those constructs. Table 5.9 indicates the results of the MRFA for the financial
resources, learning orientation and firm performance scales. Financial resources were initially proposed as made up of five items for financial knowledge, three items for financial attitude towards risk taking, five items for financial awareness of financial reports and an item for education. The FA investigated the fourteen financial resources items with a view to understanding which subsets of items might produce a multidimensional financial resources measure and whether such a measure fits the four dimensional models proposed by this research. The results of the FA indicated that the financial resources instrument is not really four dimensional. Three variables loaded into a general financial resources construct: financial knowledge, financial awareness and education, while financial attitude did not load into this financial resources construct. All five items of the financial awareness, four items of the financial knowledge and the education item were kept due to the high communalities of the items, the factor loadings and the high internal consistency. One item of the financial knowledge (FK1) was removed from the scale due to cross loading. All items of the financial attitude item (FRT1, FRT2 and FRT3) were also removed from the scale as these loads on another factor. This improved the Cronbach’s Alpha of financial resources to 0.83. Thus, financial knowledge, financial awareness and education were used to measure the financial resources and were retained for further analysis.

Scholars have varying views as to the dimensions of learning orientation. Some conceptualise it as a single scale, while others view learning orientation as multiple scales. For example, Calantonea et al. (2002) opined that various dimensions of learning orientation may occur in different combinations and therefore, it is a multidimensional construct. But, Jiménez-Jiménez and Cegarra-Navarro (2007) argued that learning orientation is best viewed as a unidimensional concept. Learning orientation is comprised of three dimensions: commitment to learning, open mindedness and shared vision (Sinkula et. al. 1997). FA was used to determine which learning orientation items cluster
together to form independent dimensions in the sample. The results however showed that the learning orientation items factored into one scale. Nine items of the learning orientation scale were kept due to the high communalities of the items, the factor loadings and the high internal consistency. Conversely, three items (LO7, LO8 and LO9) were dropped from the learning orientation construct due to poor and cross loadings, suggesting that these items did not explain much variance within the factors. The Cronbach’s Alpha for learning orientation was 0.87. The results of this analysis support the use of the learning orientation items as a unidimensional scale.

With regards to firm performance measures, the results of the FA showed that only one component was extracted. All seven items of the firm performance scale were kept due to the high communalities of the items, the factor loadings and the high internal consistency. The Cronbach’s Alpha for firm performance was 0.85. The interpretation of the one component was consistent with proposed research model in this study on the firm performance scale, with both financial and strategic performance items loading strongly on one component. Thus, the results of this analysis support the use of the firm performance items as uni-dimensional scale.

A cut-off loading of 0.30 was used to screen out items that were poor indicators of the construct. The four factor solution shows that all items loaded strongly on their respective expected factors. However, two items (FRT3 and LO7) failed to make this cutoff, leaving a total of 30 items constituting the four factors. The composite reliabilities of the four constructs meet the generally accepted standard of Cronbach’s Alpha a greater than 0.70.

The results also revealed a good Kaiser-Meyer-Oklin value of 0.83, exceeding the recommended value of 0.6 (Kaiser 1970, 1974). Barlett’s Test of Sphericity was
statistically significant with $p< 0.001$, supporting the factorability of the correlation matrix. All loadings were greater than 0.30, ranging from 0.39 to 0.90. The MRFA results showed the presence of four components with an eigenvalue exceeding one, explaining 0.38, 0.49, 0.56 and 0.62 proportion of common variance respectively (refer Appendix 3.3). The four-factor solution explained a total of 63 per cent of the variance.

Table 5.9: Factor Loadings Associated with the Financial Resources, Learning Orientation and Firm Performance Scales Following Minimum Rank Factor Analysis

<table>
<thead>
<tr>
<th>Financial resources items</th>
<th>Factor 1 loadings</th>
<th>Factor 2 loadings</th>
<th>Factor 3 loadings</th>
<th>Factor 4 loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>FK1</td>
<td>Our organisation is usually knowledgeable about its overall financial needs and goals.</td>
<td>0.425</td>
<td>0.400</td>
<td></td>
</tr>
<tr>
<td>FK2</td>
<td>Our organisation is usually knowledgeable when evaluating a variety of saving options.</td>
<td>0.478</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FK3</td>
<td>Our organisation is <em>not well informed</em> on its investment prospects.</td>
<td></td>
<td>0.595</td>
<td></td>
</tr>
<tr>
<td>FK4</td>
<td>Our organisation is usually knowledgeable about the rate of return associated with each investment.</td>
<td></td>
<td>0.489</td>
<td></td>
</tr>
<tr>
<td>FK5</td>
<td>Our organisation is usually knowledgeable about the current</td>
<td></td>
<td></td>
<td>0.630</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRT1</td>
<td>Our organisation has a strong propensity for high-risk projects (with chances of very high returns).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRT2</td>
<td>When confronted with financial decision making involving uncertainty, our organisation typically adopts a bold strategy in order to maximise the probability of exploiting opportunities.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRT3</td>
<td>When there is uncertainty, our organisation typically adopts a “wait-and-see” position in order to minimise the probability of making costly decisions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFR1</td>
<td>Our organisation is aware of the existence of the International Accounting Standard Board’s International Financial Reporting Standards for SMEs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFR2</td>
<td>Our organisation is <em>not well aware</em> on the introduction of a new accounting standard in preparing financial reports.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td>---</td>
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<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>FFR3</strong></td>
<td>Our organisation is typically aware that financial statement data can provide meaningful insights into the financial performance of a business.</td>
<td></td>
<td></td>
<td>0.658</td>
</tr>
<tr>
<td><strong>FFR4</strong></td>
<td>Our organisation is <em>unaware</em> that financial statement data enables to foresee the impending liquidity and financial crisis.</td>
<td></td>
<td>0.699</td>
<td></td>
</tr>
<tr>
<td><strong>FFR5</strong></td>
<td>Our organisation is typically aware that financial statement data can provide concise guidance on an organisational goal.</td>
<td></td>
<td></td>
<td>0.435</td>
</tr>
<tr>
<td><strong>EDU</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.391</td>
</tr>
</tbody>
</table>

**Learning orientation items**

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LO1</strong></td>
<td>Managers basically agree that our organisations’ ability to learn is our key competitive advantage.</td>
<td></td>
<td></td>
<td>0.804</td>
</tr>
<tr>
<td><strong>LO2</strong></td>
<td>The basic values of this organisation unit include learning as a key to improvement.</td>
<td></td>
<td></td>
<td>0.868</td>
</tr>
<tr>
<td><strong>LO3</strong></td>
<td>The sense around here is that</td>
<td></td>
<td></td>
<td>0.774</td>
</tr>
<tr>
<td>LO4</td>
<td>Employee learning is an investment, not an expense.</td>
<td>0.902</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------------</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO5</td>
<td>Learning in our organisation is seen as a key commodity necessary to guarantee organisational survival.</td>
<td>0.434</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO6</td>
<td>We are not afraid to reflect critically on the shared assumptions we have about our customers.</td>
<td>0.475</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO7</td>
<td>Personnel in this enterprise realise that the very way they perceive the marketplace must be continually questioned.</td>
<td>0.360 0.379</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO8</td>
<td>We rarely collectively question our own biases about the way we interpret customer information.</td>
<td>0.333 0.495</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO9</td>
<td>We continually judge the quality of our decisions and activities taken over time.</td>
<td>0.512</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO10</td>
<td>There is a commonality of purpose in my organisation.</td>
<td>0.360 0.379</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>There is total agreement on our organisational vision across all levels, functions and divisions.</td>
<td>0.512</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO11</td>
<td>All employees are committed to the goals of this organisation.</td>
<td>0.517</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO12</td>
<td>All employees view themselves as partners in charting the direction of the organisation.</td>
<td>0.596</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Firm performance items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP1</td>
<td>Compared to major competitors, sales of our organisation have been increasing rapidly.</td>
<td>0.641</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP2</td>
<td>The operations of our organisation are very profitable relative to our major competitors.</td>
<td>0.762</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP3</td>
<td>Our return on investment (ROI) is higher than that of our major competition.</td>
<td>0.764</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP4</td>
<td>The strategic position of our organisation in the market is very strong.</td>
<td>0.720</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP5</td>
<td>Relative to our major competitors, our organisation is very competitive in the market.</td>
<td>0.678</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP6</td>
<td>Our market share is very high relative to our major competitors.</td>
<td>0.729</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP7</td>
<td>We have been able to build a</td>
<td>0.596</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In sum, the factor analysis resulted in deleting one item FK1 from financial knowledge and two items LO8 and LO9 from learning orientation due to cross loadings. LO7 was also dropped from learning orientation due to poor factor loading. All items FRT1, FRT2 and FRT3 from financial attitude were removed from the scale due to poor and insignificant factor loadings. The rest of the items loaded onto their respective constructs, endorsing the theoretical theory behind each of them.

The conclusion of this analysis is that a new variable “new financial resources” is created made up of financial awareness and financial knowledge only. These two variables load together on the one factor, which is labelled “new financial resources” and does not include financial attitude (as this loads on another factor). Education is also not included in the new financial resources variable for two reasons. Firstly, education is a nominal variable, different in measurement from the other financial resources variables and only imperfectly incorporated with them in the factor and other analyses. Secondly, as a nominal variable it has a number of aspects (example, different types of post graduate
education, such as MBA versus PhD versus CPA) that are best considered as separate educations (via dummy variables) and each investigated for impact on performance. So education, whilst sometimes theoretically conceived of as an aspect of financial resources and sometimes distinguished from it in the theoretical discussion, is taken forward in the analyses as a set of dummy variables distinguished from financial resources.

5.9.1 Reliability of our Measures

Based on the outcomes of factor analysis, Cronbach’s alphas were calculated to assess the internal consistency of each scale in this research. Table 5.10 shows that all dimensions in this research were reliable. The alpha coefficients ranged from 0.80 to 0.89, which are substantially above the minimum acceptable level of 0.70 (Nunally 1967). The results indeed showed that the scales have met or exceed prevailing standards of reliability for survey instruments.

Table 5.10: Cronbach’s Alpha Coefficients of Main Measures (N=241)

<table>
<thead>
<tr>
<th>Measures</th>
<th>Number of Items</th>
<th>Coefficients (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources</td>
<td>9</td>
<td>0.80&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td><em>Financial knowledge</em></td>
<td>4</td>
<td>0.75&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td><em>Financial awareness</em></td>
<td>5</td>
<td>0.83</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>9</td>
<td>0.89&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Firm performance</td>
<td>7</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Notes: <sup>a</sup>after deletion of FK1
<sup>b</sup>after deletion of LO7, LO8 and LO9

5.9.2 Correlation matrix

A correlation matrix of the scores for the remaining variables for these four constructs is shown in Table 5.11 to 5.13. Analysis of the correlation matrix shows the presence of
many significant coefficients. The correlations for the three dimensions of financial resources range from -0.09 to 0.58. For learning orientation, the correlations value range between 0.31 and 0.73. Finally, the correlations between firm performance items range from 0.34 to 0.80. The correlation values for the constructs’ items fall into low to middling values. No items are found to be highly correlated, indicating no multicollinearity problem. Multicollinearity occurs when the independent variables are highly correlated with the value of \( r > 0.9 \) and above (Tabachnick & Fidell 2001; Hair et al. 2006).

Table 5.11: Descriptive Statistics and Correlation Matrix for Financial Resources

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
<th>FK2</th>
<th>FK3</th>
<th>FK4</th>
<th>FK5</th>
<th>FAFR1</th>
<th>FAFR2</th>
<th>FAFR3</th>
<th>FAFR4</th>
<th>FAFR5</th>
<th>EDU</th>
</tr>
</thead>
<tbody>
<tr>
<td>FK2</td>
<td>5.73</td>
<td>1.041</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FK3</td>
<td>5.27</td>
<td>1.683</td>
<td>0.324**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FK4</td>
<td>5.41</td>
<td>1.266</td>
<td>0.324**</td>
<td>0.283**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FK5</td>
<td>5.67</td>
<td>1.015</td>
<td>0.406**</td>
<td>0.280**</td>
<td>0.455**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFR1</td>
<td>5.62</td>
<td>1.515</td>
<td>0.216**</td>
<td>0.177**</td>
<td>0.255**</td>
<td>0.194**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFR2</td>
<td>5.53</td>
<td>1.563</td>
<td>0.222**</td>
<td>0.195**</td>
<td>0.251**</td>
<td>0.281**</td>
<td>0.580**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFR3</td>
<td>6.00</td>
<td>1.047</td>
<td>0.224**</td>
<td>0.254**</td>
<td>0.203**</td>
<td>0.175**</td>
<td>0.393**</td>
<td>0.297**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFR4</td>
<td>5.85</td>
<td>1.308</td>
<td>0.267**</td>
<td>0.321**</td>
<td>0.319**</td>
<td>0.213**</td>
<td>0.432**</td>
<td>0.379**</td>
<td>0.514**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFR5</td>
<td>5.56</td>
<td>1.234</td>
<td>0.247**</td>
<td>0.223**</td>
<td>0.237**</td>
<td>0.176**</td>
<td>0.278**</td>
<td>0.103</td>
<td>0.531**</td>
<td>0.403**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>EDU</td>
<td>4.70</td>
<td>1.462</td>
<td>0.175**</td>
<td>0.208**</td>
<td>0.073</td>
<td>0.112</td>
<td>-0.022</td>
<td>0.077</td>
<td>0.026</td>
<td>0.140*</td>
<td>-0.086</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
### Table 5.12: Descriptive Statistics and Correlation Matrix for Learning Orientation

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
<th>LO1</th>
<th>LO2</th>
<th>LO3</th>
<th>LO4</th>
<th>LO5</th>
<th>LO6</th>
<th>LO9</th>
<th>LO10</th>
<th>LO11</th>
<th>LO12</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO1</td>
<td>5.12</td>
<td>1.280</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO2</td>
<td>5.40</td>
<td>1.110</td>
<td>0.678**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO3</td>
<td>5.53</td>
<td>1.158</td>
<td>0.513**</td>
<td>0.713**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO4</td>
<td>5.39</td>
<td>1.160</td>
<td>0.602**</td>
<td>0.669**</td>
<td>0.730**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO5</td>
<td>5.27</td>
<td>1.162</td>
<td>0.392**</td>
<td>0.390**</td>
<td>0.396**</td>
<td>0.391**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO6</td>
<td>5.13</td>
<td>1.209</td>
<td>0.431**</td>
<td>0.353**</td>
<td>0.382**</td>
<td>0.422**</td>
<td>0.556**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO10</td>
<td>4.98</td>
<td>1.393</td>
<td>0.396**</td>
<td>0.429**</td>
<td>0.486**</td>
<td>0.390**</td>
<td>0.308**</td>
<td>0.351**</td>
<td>0.722**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LO11</td>
<td>5.28</td>
<td>1.206</td>
<td>0.388**</td>
<td>0.398**</td>
<td>0.465**</td>
<td>0.407**</td>
<td>0.337**</td>
<td>0.387**</td>
<td>0.666**</td>
<td>0.622**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>LO12</td>
<td>4.80</td>
<td>1.325</td>
<td>0.405**</td>
<td>0.401**</td>
<td>0.532**</td>
<td>0.450**</td>
<td>0.329**</td>
<td>0.396**</td>
<td>0.618**</td>
<td>0.569**</td>
<td>0.712**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

### Table 5.13: Descriptive Statistics and Correlation Matrix for Firm Performance

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
<th>FP1</th>
<th>FP2</th>
<th>FP3</th>
<th>SP1</th>
<th>SP2</th>
<th>SP3</th>
<th>SP4</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP1</td>
<td>4.24</td>
<td>1.338</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP2</td>
<td>4.26</td>
<td>1.218</td>
<td>0.538**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FP3</td>
<td>4.17</td>
<td>1.292</td>
<td>0.489**</td>
<td>0.797**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP1</td>
<td>5.04</td>
<td>1.355</td>
<td>0.508**</td>
<td>0.441**</td>
<td>0.458**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP3</td>
<td>4.97</td>
<td>1.258</td>
<td>0.475**</td>
<td>0.452**</td>
<td>0.427**</td>
<td>0.697**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP3</td>
<td>4.24</td>
<td>1.506</td>
<td>0.378**</td>
<td>0.415**</td>
<td>0.374**</td>
<td>0.532**</td>
<td>0.547**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SP4</td>
<td>4.85</td>
<td>1.570</td>
<td>0.342**</td>
<td>0.396**</td>
<td>0.421**</td>
<td>0.612**</td>
<td>0.527**</td>
<td>0.595**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
5.10 Regression Analysis

5.10.1 Exploring simple models of financial resources on firm performance

The first model estimated is a simple one of financial resources (financial knowledge and financial awareness) on firm performance that excluded other variables such as learning orientation and CFO experience. The results show that firms that are more financially resourceful produce better performance than firms that are financially less resourceful.

It is very important to note that the first set of simple models presented below is not used for hypotheses testing but for the purpose of exploring the data and understand the basic relationships in the data. Hypothesis testing will only be done on the full model.

Table 5.14 displays summary statistics for simple model of the research. The model explains 7.5 per cent of the variance in firm performance. This is a statistically significant contribution, as indicated by the significant F change value (p = 0.000) (refer Appendix 4). The ANOVA table indicates that the entire model is significant \([F (1, 239) =19.458, p<.001]\). The results are reported in Tables 5.15. Table 5.16 shows the coefficients of the simple model.

Table 5.14: Model Summary

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R^2</th>
<th>Adjusted R^2</th>
<th>Standard error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.274^a</td>
<td>0.75</td>
<td>0.71</td>
<td>0.98896</td>
</tr>
</tbody>
</table>
Table 5.15: ANOVA Statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>19.030</td>
<td>1</td>
<td>19.030</td>
<td>19.458</td>
<td>0.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>233.754</td>
<td>239</td>
<td>0.978</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>252.785</td>
<td>240</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.16: Simple Model Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised coefficients</th>
<th>Standardised coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>2.546</td>
<td>0.456</td>
<td>5.578</td>
<td>0.000</td>
</tr>
<tr>
<td>New FR</td>
<td>0.354</td>
<td>0.080</td>
<td>0.274</td>
<td>4.411</td>
</tr>
</tbody>
</table>

*a Dependent variable: firm performance

In Figure 5.1, and subsequent figures reporting the modeling results, the standardised regression coefficients are reported, as these make for better comparisons of variables relative impacts (as not distorted by the number of items in the scales).

![Diagram](image)

Figure 5.1: Simple Model of Financial Resources-Performance Relationship

Note: Significant relationship in this data analysis *p< .05. **p< .01. ***p< .001
5.10.2 Comprehensive model on firm performance

A comprehensive regression analysis was conducted to measure the relationships proposed in the theoretical model. Specifically, this research used multiple and moderated regression analyses to test the effects of independent variables on a dependent variable, classified into main and interaction effects. Multiple regression analysis yields the best estimates of a dependent variable from a number of independent variables. Moderated regression analysis on the other hand, is a suitable tool for testing hypothesised contingency relationships: relationships between two variables that could vary with different values of moderators. Multiple regression analysis was used to understand and explain whether the financial resources, education, learning orientation and CFO experience positively influence the firm performance. Moderated regression analysis was then used to explore the interacting influences that learning orientation and CFO experience have on the financial resources-firm performance relationship. Both models were improved by including the control variables. Dummy variables were used for one independent variable (education) and control variables (firm size and type of industry) in order to better understand the effect of these variables on firm performance.

There were two models described in this section: initial research model and final refined model. The analyses started with all the variables in the model. Then, the insignificant variables were dropped, one at a time until the model was left with only significant variables. The comparisons were described below.

Initial model

The hypotheses in this section are intended at examining the effect of the independent variables; education, financial resources, learning orientation and CFO experience on the dependent variable of firm performance. Also, the interaction effect of learning orientation and CFO experience. The control variables (CFO age, CFO gender, firm age,
firm size, type of industry and past performance) were included in the regression equation to explore the effect of the variables studied. There are three models listed in the analyses. Model 1 tests the control variables. Model 2 tests the predictability of the main-effect variables on firm performance. Model 3 tests all variables together, including the interaction of the predictors.

Table 5.17 shows the model summary statistics of the initial model. Model 1 (control variables) explains 10 per cent of the variance. Model 2 with the main effects of education, financial resources, learning orientation and CFO experience explains 30.5 per cent. After interaction effects of learning orientation and CFO experience (Model 3) have been included, the overall model explains 30.8 per cent. The interaction effects of learning orientation and CFO experience have not made a statistically significant contribution to the variance in firm performance. This is indicated by the insignificant change in F value for this model, which has a p value of 0.836 (refer Appendix 5.1). The ANOVA table indicates that the entire model (Model 3) is not significant. The results are reported in Tables 5.18.

Table 5.17: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>Standard error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.323(^a)</td>
<td>0.104</td>
<td>0.017</td>
<td>1.01750</td>
</tr>
<tr>
<td>2</td>
<td>0.554(^b)</td>
<td>0.307</td>
<td>0.210</td>
<td>0.91204</td>
</tr>
<tr>
<td>3</td>
<td>0.555(^c)</td>
<td>0.308</td>
<td>0.204</td>
<td>0.91566</td>
</tr>
</tbody>
</table>
Table 5.18: ANOVA Statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regression</td>
<td>1</td>
<td>26.000</td>
<td>21</td>
<td>1.238</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1</td>
<td>223.625</td>
<td>216</td>
<td>1.035</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1</td>
<td>249.625</td>
<td>237</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regression</td>
<td>2</td>
<td>76.608</td>
<td>29</td>
<td>2.642</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>2</td>
<td>173.017</td>
<td>208</td>
<td>0.832</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2</td>
<td>249.625</td>
<td>237</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regression</td>
<td>3</td>
<td>76.908</td>
<td>31</td>
<td>2.481</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
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<td>172.717</td>
<td>206</td>
<td>0.838</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3</td>
<td>249.625</td>
<td>237</td>
<td></td>
</tr>
</tbody>
</table>

**Main effects**

The evidence is that there is no significant impact for educational level on firm performance. The results hence, lead to the rejection of Hypothesis 1. The results also show that the level of financial resources is insignificantly related to firm performance. Thus, Hypothesis 2 is not supported. Drawing on past research, Hypothesis 3 predicted that learning orientation is positively related to firm performance and this is indeed largely the case. It is important to note that, before the interaction effects are introduced in Model 3, the main effect of learning orientation was significant as in Model 2. Finally, Hypothesis 5 proposed that CFO experience is positively related to firm performance. However, the results show that CFO experience had no significant relationship with firm performance. The full model, including interactions, will be used to test the hypotheses.
Interaction effects

Next, the interacting effect of learning orientation and CFO experience were tested with independent variable in Model 3. To test for significant interactions, we used mean centring of the (interaction) variables to reduce multicollinearity (Baron & Kenny 1986).

Considering the suggestion of the literature that learning orientation acts as a moderator on firm performance (Baker & Sinkula 1999), the present research examined the interaction effects of learning orientation on the relationship between financial resources and firm performance. Hypothesis 4 posited that the strength of the relationship between financial resources and firm performance would be heightened as learning orientation increased. However, the results yield no such evidence. It suggests that the level of financial resources on firm performance is not moderated by learning orientation, supporting conclusions drawn by Baker and Sinkula (1999, p. 420). Hypothesis 4 is not supported.

Concerning CFO experience, Hypothesis 6 proposed that the strength of the relationship between financial resources and firm performance would increase as CFO experience increased. However, the results show an insignificant interaction effect in the hypothesised direction, meaning that the level of financial resources on firm performance is not moderated by the years of CFO experience. Hypothesis 6 is not supported. Concisely, neither learning orientation nor the CFO experience had an impact on the relationship between financial resources and firm performance.

All in all, the analyses observed unforeseen results and even the opposite of what would be expected from what is known from the literature and rationalisation. Most of the research hypothesised effects were not consistent throughout the analyses. Disappointingly, only total sales are making a significant unique contribution to the
prediction of the dependent variable (see Figure 5.2). Beta values for the education dummy variables are all not significant in this initial model estimation. From Model 3, the modelling approach was then to drop insignificant variables and continue to refine the model until it reaches a parsimonious model, with significant variables.

**Figure 5.2: Initial Model**

Note: Dashed arrow denotes insignificant relationship in this data analysis -

*p<.05. **p<.01. ***p<.001

**Final model**

The regression analysis was taken further by dropping the insignificant variables and from the initial analysis. The hypotheses testing of this section is aimed at investigating the main effect of the independent variables on the dependent variable. This model will be referenced for discussion of the hypotheses testing.
Table 5.19 displays summary statistics for each model. With the one control variable (Total sales) in Model 4 entered, the model explains 5 per cent of the variance. After main effects (Model 5) have also been included, the model as a whole explains 26 per cent. This means that the main effects of education and learning orientation explain an additional 21 per cent of the variance in firm performance. This is a statistically significant contribution, as indicated by the Significance F change value (p = 0.000) (refer Appendix 6). The ANOVA table indicates that the entire model (Model 5) in this research reaches statistical significance is significant [F (3, 234) =27.354, p<.000]. The results are reported in Tables 5.20.

Table 5.19: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Standard error</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0.227&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.051</td>
<td>0.047</td>
<td>1.00167</td>
</tr>
<tr>
<td>5</td>
<td>0.510&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.260</td>
<td>0.250</td>
<td>0.88871</td>
</tr>
</tbody>
</table>

Table 5.20: ANOVA Statistics

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Regression</td>
<td>12.834</td>
<td>1</td>
<td>12.834</td>
<td>12.791</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>236.791</td>
<td>236</td>
<td>1.003</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>249.625</td>
<td>237</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Regression</td>
<td>64.812</td>
<td>3</td>
<td>21.604</td>
<td>27.354</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>184.813</td>
<td>234</td>
<td>0.790</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
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<td>237</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.21: Final Model Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised coefficients</th>
<th>Standardised coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>Std. error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>4</td>
<td>(Constant)</td>
<td>3.999</td>
<td>0.164</td>
<td>24.318</td>
<td>0.000</td>
</tr>
<tr>
<td>Total sales</td>
<td>0.139</td>
<td>0.039</td>
<td>0.227</td>
<td>3.577</td>
<td>0.000</td>
</tr>
<tr>
<td>5</td>
<td>(Constant)</td>
<td>1.231</td>
<td>0.375</td>
<td>3.281</td>
<td>0.001</td>
</tr>
<tr>
<td>Total sales</td>
<td>0.151</td>
<td>0.035</td>
<td>0.245</td>
<td>4.358</td>
<td>0.000</td>
</tr>
<tr>
<td>MBA</td>
<td>0.342</td>
<td>0.172</td>
<td>0.112</td>
<td>1.987</td>
<td>0.048</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>0.514</td>
<td>0.065</td>
<td>0.444</td>
<td>7.881</td>
<td>0.000</td>
</tr>
</tbody>
</table>

a Dependent variable: firm performance

Table 5.21 shows the coefficients of the final model. The results show that the final model performed better than the initial model. There are three variables that made a unique and statistically significant contribution to the model. They are education, learning orientation and total sales.

Overall, the relationship between education and firm performance was insignificant. However, having an MBA evidences a significant positive relationship with firm performance (β =0.112, p<0.05), offering some support for Hypothesis 1. With regards to learning orientation, drawing on past research, Hypothesis 3 predicted that learning orientation is positively related to firm performance. The results support the hypothesis (β =0.444, p<0.000), bolstering conclusions drawn by Baker and Sinkula (1999). The only control variable that has significant positive impact on firm performance is total sales (β =0.245, p<0.000).

All in all, of these variables, main effect of learning orientation makes the most influential contribution to explaining the dependent variable, although total sales also
made a statistically significant contribution ($\beta = 0.245$). Education also made a contribution. The remaining variables have not made any contributions. Figure 5.3 displays the final research framework of the study.

**Figure 5.3: Final Model**

Note: Dashed arrow denotes insignificant relationship in this data analysis -

* $p < .05$. ** $p < .01$. *** $p < .001$

### 5.10.3 Regression diagnostics

The regression diagnostics such as normality, linearity, homoscedasticity, outliers, multicollinearity and endogeneity are described in this section.

**Normality**

An examination of normal probability plot of the residuals (Figure 5.4) suggested there was no significant deviation from normality for the present data. An inspection of the histogram (Figure 5.5) also suggested that the residuals appear to be reasonably normally distributed. Thus, there is no serious violation concerning the assumptions of normality.
These plots are from the final model (Model 5), but the plots from other models are similar.

![Normal P-P Plot of Regression Standardized Residual](image1)

**Figure 5.4: Normal P-P Plot of Regression Standardised Residual**

![Histogram of Regression Standardised Residual](image2)

**Figure 5.5: Histogram of Regression Standardised Residual**
Linearity

The linearity assumption refers to the presence of a straight-line relationship with predicted dependent variables scores (Pedhazur 1997). A residuals scatter plot was used to examine the assumption of linearity. Figure 5.6 displays the scatter plot for the residuals (from Model 5). The results show a reasonably random rectangular distribution, with most of the scores concentrated in the center. The data of this research therefore have not violated the assumption of linearity.

Homoscedasticity

Homoscedasticity refers to the assumption that dependent variables have equal variance across the range of predictor variables (Hair et al. 1998, p. 73). The residuals scatter plot was used to check for the presence of homoscedasticity and to determine whether the assumptions of random errors have been met (de Vaus 2002; Field 2009). There is fairly uniform distribution across all values of the predicted variables in the scatter plot (see Figure 5.6), which implies that the assumption of homoscedasticity is satisfied.

Figure 5.6: Scatterplot of Regression Standardised Residual
Outliers

Generally, outliers mean that some observations have unique characteristics different from the target distributions. An outlier is an observation that deviates so much from other observations as to arouse suspicion that it was generated by a different mechanism, or otherwise appears to be inconsistent with the remainder of that set of data. Outliers appear to deviate markedly from other members of the sample and can affect the normality of the data. A formal method of detecting the presence of outliers that is widely used is the Mahalanobis distance statistics.

Outliers can be divided between univariate and multivariate. A univariate outlier is a data point that consists of an extreme value on one variable. Whereas, a multivariate outlier is a combination of unusual scores on the various dependent variables (Pallant 2001). Detecting the existence of outliers in the data is necessary because outliers can influence the outcome of statistical analyses. For instance, they might cause errors(s) in fitting the model estimation, parameter estimation, and standard error estimation (Gallagher et al. 2008).

Univariate outliers are cases with scores that are quite different to the remainder of the sample, either much higher or much lower (Pallant 2001). Box plots were used to indicate the presence of potential outliers. Any value than extends more than 1.5 box-lengths from the edge of the box is considered to be outlier. The difference between the original mean and the 5 percent trimmed mean give an indication of how much of a problem these outlying cases were likely to be. In this research, analysis of descriptive statistics showed that the value of the 5 percent trimmed mean is quite similar with the mean of three variables (financial resources, learning orientation and firm performance). The box plot analysis also presented similar results. The fact that the values are not too
different to the remaining distribution meant that no outlier cases were excluded at all and were retained for analysis.

The Mahalanobis distance statistic was used to check for multivariate outliers. Using Tabachnick and Fidell’s (1996) guidelines the critical value is 29.59. There was one outlying case with a Mahalanobis distance value of 29.72 (ID number 114). Given the size of the data file, it is not unusual for a few outliers to appear (Pallant 2001). Since there was only one case with a score that exceeded the critical value and that score is not too high, this case was retained in the analysis.

**Multicollinearity**

The presence of multicollinearity can threaten the internal validity of multiple regression analysis. Multicollinearity can be tested for using correlation matrixes for the independent variables, tolerance values and variance inflation factors (VIF).

Pearson correlation coefficients were used first to assess the presence of multicollinearity among the variables in the models. Multicollinearity could cause a problem if the correlation is greater than 0.80 (Gujarati 2003). Table 5.22 provides the results for Pearson’s correlation coefficients’ absolute values for individual financial resources (financial knowledge and financial awareness) and learning orientation. As shown, all the values show weak independent variable dependencies, with correlations ranging from 0.46 to 0.48, well below the threshold value. None of the independent variables had a high correlation with any other independent variable, indicating no violation of the assumption of multicollinearity.
Table 5.22: Correlations between Independent Variables and Collinearity Statistics

<table>
<thead>
<tr>
<th>Measures</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Financial knowledge</td>
<td>1</td>
<td></td>
<td></td>
<td>0.703</td>
<td>1.422</td>
</tr>
<tr>
<td>2. Financial awareness</td>
<td>0.459**</td>
<td>1</td>
<td></td>
<td>0.702</td>
<td>1.424</td>
</tr>
<tr>
<td>3. Learning orientation</td>
<td>0.478**</td>
<td>0.479**</td>
<td>1</td>
<td>0.687</td>
<td>1.457</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Another basic approach for diagnosing potential multicollinearity is the tolerance values. Tolerance value is defined as the amount of variability of the selected independent variable not explained by the other independent variables. The tolerance value should not be less than 0.10 (Hair et al. 1998). If this value is very low (near to zero), then this indicates that the multiple correlations with other variables is high, suggesting the possibility of multicollinearity. As shown in Table 5.22, the tolerance values for the measures ranging from 0.69 to 0.70, indicating an absence of multicollinearity among the independent variables.

Alternatively, the degrees of multicollinearity can be examined by using a VIF value, which is the inverse of the tolerance value. The maximum acceptable cut-off point for VIF is 10 (Hair et al. 1998). The VIF values shown in Table are ranged from 1.422 to 1.457. None of the VIF observed was greater than the threshold value, implying that multicollinearity is within acceptable bounds.

**Endogeneity**

Endogeneity is a problem of correlations between the independent variables and the regression error term. To test for this, the regression residuals are used as a proxy for the errors. In this case, the (Pearson) correlations of the residuals with the independent
variables are all insignificant, indeed calculated to be 0.000. This is a strong indication that no problems of endogeneity or omitted variable bias are present.

The question as to the direction of causality should also be considered. There is strong theory and evidence supporting a casual flow from financial resources and learning orientation to financial performance (see Chapters 2 and 3). There is little to support a reverse causality argument; the empirical results of Monticone (2010) indicate that financial wealth had a positive effect on the financial knowledge of individuals, but such an argument seems forced and unconvincing when applied to firms.

5.11 Research Hypotheses

Although only two hypotheses were rendered support, the final model is a simple and reasonable one for the observed phenomenon. The main effect of education was found to be significant in the form of the dummy for CFO having an MBA. Learning orientation also shows a significant effect on firm performance. There was no significant effect for financial resources when learning orientation is included. Both interaction effects, learning orientation and CFO experience had no impact on financial resources’ impact on firm performance. The results of the analyses presented in Table 5.23 allow this research to answer the research questions posed at the beginning of the thesis.
Table 5.23: Summary of Hypotheses Testing

<table>
<thead>
<tr>
<th>Research Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Education (general management) is related positively to firm performance.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2 Financial resources are related positively to firm performance.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H3 Learning orientation is related positively to firm performance.</td>
<td>Supported</td>
</tr>
<tr>
<td>H4 Learning orientation is a positive moderator of the relationship</td>
<td>Not supported</td>
</tr>
<tr>
<td>between financial resources and firm performance.</td>
<td></td>
</tr>
<tr>
<td>H5 CFO experience is related positively to firm performance.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H6 CFO experience is a positive moderator of the relationship</td>
<td>Not supported</td>
</tr>
<tr>
<td>between financial resources and firm performance.</td>
<td></td>
</tr>
</tbody>
</table>
5.12 Summary

This chapter presented the procedures and findings of the data analysis. These include the descriptive analyses of the survey data. The analysis of demographic characteristics of the respondents showed that the sample of the research was appropriate to accomplish the objectives of this study. Factor analysis was conducted to fine tune and validated the scales of the variables employed in this research. Robust evidence was found for considering the variables of this research in the next stage, which was to test the hypotheses. Reliability was examined using Cronbach’s alpha. The internal reliability analysis revealed that all the variables were in the acceptable range. Regression analyses were used to test the research hypotheses. Three set of models were analysed. The simple model analyses how the financial resources-firm performance relationship may look when learning orientation and CFO experience are ignored. The results show that financial resources contribute significantly and positively to firm performance. The initial comprehensive model includes six hypotheses used to test the relationship between education, financial resources, learning orientation and CFO experience on firm performance as presented in Section 5.10.1. The final model includes all the variables that were significant, which resulted from the initial analysis as shown in Section 5.10.2. Overall, the result of regression analysis indicates that the CFO having an MBA, the firm’s learning orientation and total sales contribute significantly to firm performance.

The next chapter discusses these findings in more details in order to answer the research questions and objectives outlined in Chapter 1.
CHAPTER SIX
DISCUSSION

6.1 Introduction
The main objective of this chapter is to discuss the results presented in Chapter 5 in relation to the research questions and hypotheses developed for the research. Section 6.2 discusses key descriptive variables in the data set. This includes discussion of demographic results that are valuable for further explanations. Section 6.3 describes t-test results that were undertaken on the main variables of this research against the gender and the firm size of the respondents. Section 6.4 discusses the main research variables. Section 6.5 clarifies what constitutes the financial resources construct. The impact of financial resources, learning orientation and CFO experience on firm performance are discussed in Section 6.6. Finally, the chapter is summarised in Section 6.7.

6.2 Discussion of Descriptive Statistics
Several demographic characteristics of the informants are worth further elaboration in this research. They are discussed in the following sections.

6.2.1 Gender
The results indicated that the sample of the CFOs or key financial decision makers of SMEs in Australia were dominated by males with a majority of 63 per cent participated in this research. This is not surprisingly as the industry has long recognised that men outweigh women both in top finance roles and also in pay (Merrett 2013). According to a December 2012 study published by the Australian Financial Review, on average female CFOs earned about 26 per cent less than male across the ASX listed companies.
(Drummond & Tadros 2012). The low number of women financial decision makers indicates that SMEs in Australia are a male-dominated industry. Aside from that, the higher percentage of male respondents in the survey could be due to the sampling unit used in this research. Besides having CFOs as the sampling unit, the rest of the respondents were the key financial decision maker such as CEO, finance director or company secretary of the firms. Apparently, more men than women hold these top financial managerial positions. Thus, the sampling approach resulted in a higher percentage of male CFOs in this research.

6.2.2 Age

The age of the respondents was generally older than 51 years old (54%). This shows that finance profession is dominated by the senior age group. It is argued that a CFO with a higher age will have much more experience compared to a younger age relatively. This experience is expected to positively contribute to the better firm performance.

6.2.3 Education

With regard to the education level, more than half of the respondents had CPA or CA qualifications (52%). This showed that they were highly educated and well qualified to hold the position of CFO. The level of education makes a difference in having better skills and practices. There were 13 per cent of the respondents with an MBA, 29 per cent had a tertiary level of education and 3 per cent of the respondents had a PhD or doctorate degrees. There were a small number of respondents with lower levels of education, 3 per cent of the respondents had only graduated from HSC (year 12) and 1 per cent of the respondents had less than HSC (year 12).
6.3 Tests for gender and firm size differences

To further enhance the demographic results obtained in this research, t-test analyses were carried out on the main variables: financial resources, learning orientation and firm performance against the firm size and the gender of the respondents.

6.3.1 Gender

As shown in Table 5.6 (refer Chapter 5), there was a small significant difference between males and females in regard to the learning orientation measures. These results indicated that on average female CFOs exercise learning orientation to a greater extent than their male counterparts. Their commitment to learning, not only encourages the ability to think outside the box (Baker & Sinkula 1999) and to respond quickly to emerging problems and trends (Lumpkin & Lichtenstein 2005; Slater & Narver 1995), but also may strengthen the firm position in the marketplace.

Referring to Chapter 5 Table 5.6, no statistically significant difference was found in the financial resources of firms with male and female CFOs. The data were further analysed to find if there was any statistically significant difference at the factor level for each of the variables of financial resources. Among the three factors of financial resources, no statistical significance difference was found between firms with male and female CFOs in financial knowledge and financial attitude towards risk taking. However, financial awareness towards financial report was found to have a statistically significant different in the mean scores between firms with male and female CFOs, with a small effect size. The results found that firms with female CFOs were rated to possess higher financial awareness of financial report than those with male CFOs. Theoretically, they are more financially aware of risks and opportunities comprises related to financial statements, which may translate into a better firm performance.
6.3.2 Firm size

Regarding firm size differences, no statistical significance difference was found between firms in financial resources and learning orientation. However, there was a statistical significant difference in the mean scores for small-sized enterprises versus medium-sized enterprises on firm performance (refer Chapter 5 Table 5.7). The results indicated that on average medium-sized enterprises achieve better performance than their counterparts in small enterprises. This result is reasonable since firms with more resources may lead to relatively higher business performance. As some resources are superior to others, there will be efficiency differences across resources (Kapelko 2006), providing a cost advantage. This can be explained by arguing that medium businesses also have a more structured management due to size and scope of production in comparison to small firms. Furthermore, lack of capitals, skills and less experience might be amongst the most significant challenges faced by small firms, which hinder them in obtaining advantages in the market. It is speculated here that medium-sized firms can do better than small firms because they have better resources allocation, which thus contributes more to firm success.

6.4 Discussion of Main Variables

6.4.1 Financial resources

The mean score for the overall financial resources construct was $M = 5.12$. Financial awareness ($M = 5.71$) had the highest mean score of all the constructs of financial resources, followed by financial knowledge ($M = 5.65$) and financial attitude ($M = 3.25$). This is evidence that the respondents value their financial awareness of financial reports more than their financial knowledge and financial attitude towards risk taking (refer Chapter 5 Table 5.8). The respondents believe that the awareness of the existence of a new accounting standard in preparing financial reports and financial statement data to
provide meaningful insights of firm performance are the most important abilities of the firms. On a different note, the low mean score of financial attitude towards risk taking indicates that the respondents did not typically adopt a bold strategy to maximise the probability of exploiting opportunities. They appear unwilling to use resources for projects where the outcomes are uncertain (Wiklund & Shepherd 2005). Paying close attention to financial awareness of financial reports and also financial knowledge could enhance resources to increase firm performance of SMEs in Australia.

6.4.2 Learning orientation

The overall mean score for learning orientation was M = 5.19. Among all the three factors of learning orientation, commitment to learning (M = 5.36) is perceived to be a more important factor for the respondents than the other factors, shared vision (M = 5.18) open mindedness (M = 5.02) (refer Chapter 5 Table 5.8). This finding is in line with Wang (2008), which commitment to learning was recognised to be the crucial role in upgrading firm’s assets and capabilities, and considered a key to sustain firm performance. The respondents seemed to agree that in order to be a learning orientated firm, it is important for them to create and encourage a climate that promotes learning and thus, bring a positive impact on performance. Firms that excel in continuously learning about their markets are in a better position to anticipate changes (Day 1994). Failing this, “it is difficult to imagine from where a firm’s unique skills and competencies would come” (Pisano 1994, p. 86). As a result, business efforts and practices may not be successful in reaping performance benefits. Presumably, a new business environment may favour those firms that are proactively committed to learning. Thus, SMEs in Australia should design and develop processes and strategies that embrace learning culture to continuously evolve in response to market demands.
6.4.3 Years of CFO experience

Further, the results exhibited that approximately 35% of the respondents had prior CFO experience (or been in a similar position) of more than twenty years. Presumably, experience brings different values, skills and experiences that are expected to contribute to better decisions. Firms with a CFO who has more experience may find it easier to manage the financial complexity associated with a firm’s performance. Many firms seek to hire experienced top executives who are proficient with specialist skill-sets (Half 2012; Hudson Accounting and Finance 2012). The presence of CFO experience in the firm is more likely to add value to the firm, given that they may be aware of the industry’s barriers to entry, threat of substitutes, power of suppliers and customers, or intensity of rivalry (Kroll et al. 2008). Such experience would be expected to facilitate firms to accurately evaluate better strategies to increase the performance.

6.4.4 Firm performance

Finally, the mean score for overall firm performance was M = 4.53. Of the two firm performance measures adopted in this research, strategic performance (M = 4.78) scored a higher mean than financial performance (M = 4.22) (refer Chapter 5 Table 5.8). The results indicated that the firms perceive strategic performance as the more influential driver of the desired outcomes than financial performance. Nonetheless, the respondents did not disregard the need for financial metrics. The point is that financial measures describe the transactions of past events and performance, which were not vital to execution success and do not fully capture the outcomes. Most importantly of all, the emphasis on cost of sales, profitability and return on investment leads to incomplete insights into firm performance. Indeed, there is a need to include other perspectives, such as market share, competitiveness, strategic position and leadership position to give a bigger picture of the performance. These non-financial related data not only provide
performance measurements, but also assist to truly execute business strategies in order to constantly enhance overall performance.

6.5  Financial Resources

6.5.1 What constitutes the financial resources construct?

Factor analysis was conducted to uncover the underlying structure of a set of financial resources items. Factor analysis is a statistical method commonly used for the situation where links between the observed and latent variables are unknown or uncertain (Bryne 2010). The financial resources construct was initially conceived of with four primary factors that could impact the level of financial resources of a firm, namely education, financial knowledge, financial attitude and financial awareness. Nevertheless, this research found that the financial resources construct is not really four-dimensional.

The factor analysis investigated the fourteen financial resources items with a view to understanding which subsets of items might produce a financial resources measure and whether such measure fits the four dimensional models proposed in this research. There were five items for financial knowledge, three items for financial attitude towards risk taking, five items for financial awareness of financial reports and an item for education.

For better interpretation and to obtain clear loadings the items were rotated using Weighted Varimax rotations. The relationship of each variable to the underlying construct is weighed by its factor loading. Each factor is explained according to the variables loading on it. Items (variables) were not considered an important part of a factor when the factor loadings from the rotated loadings matrix were less than absolute 0.3 (Hair et al. 2006; Tabachnik & Fidell 2007).
The items of all factors were loaded strongly on their respective latent factors, except for financial attitude. The rotated component matrix showed that three items were cross loading. One item for financial knowledge was deleted due to cross loading (as the cross loading meant that it did not give clear, unambiguous, information). All items for financial attitude were not loading into the corresponding construct and thus, were removed from the financial resources construct. This improved the Cronbach’s Alpha of financial resources to 0.80. The factor loadings of the related items ranged from 0.425 to 0.699. There were ten items that defined the financial resources construct. The output of factor analysis with the remaining items is presented in Table 6.1. All in all, it is reasonable to conclude that the revised financial resources instrument used for this research had adequate reliability and validity to be used for future research.

Table 6.1: Factor Loadings Associated with the Financial Resources Scale

<table>
<thead>
<tr>
<th>Financial resources items</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>FK2 Our organisation is usually knowledgeable when evaluating a variety of saving options.</td>
<td>0.478</td>
</tr>
<tr>
<td>FK3 Our organisation is <em>not well informed</em> on its investment prospects.</td>
<td>0.595</td>
</tr>
<tr>
<td>FK4 Our organisation is usually knowledgeable about the rate of return associated with each investment.</td>
<td>0.489</td>
</tr>
<tr>
<td>FK5 Our organisation is usually knowledgeable about the current market condition.</td>
<td>0.630</td>
</tr>
<tr>
<td>FFR1 Our organisation is aware of the existence of the International Accounting Standard Board’s International Financial Reporting Standards for SMEs.</td>
<td>0.689</td>
</tr>
<tr>
<td>FFR2 Our organisation is <em>not well aware</em> on the introduction of a</td>
<td>0.638</td>
</tr>
</tbody>
</table>
6.5.2 Does financial resources measured at the firm-level explain firm performance?

The research firstly proposes that the understanding of such link can be examined by proposing and testing a simple model, see Figure 6.1. The simple model presented here proposes a possible relationship and provides a framework for introducing propositions that are acknowledged as tentative. This research has proposed a model for investigating the impact of the financial resources variable on firm performance.

Apparently, financial resources explain some differences in firm performance. The evidence demonstrated that financial resources contribute significantly and positively to firm performance ($\beta = 0.258, p<0.05$). So, to answer to the research question posed in the heading: yes, financial resources measured at the firm-level does explain firm performance. Financial resources as determined on in this research, are a viable and important instrument for capturing firm-level phenomenon, particularly among the sample of Australia SMEs. The findings from this research have been significant in
depicting the importance of financial resources as a source of competitive firm performance, which also highlights a gap in the theory.

![Figure 6.1: Simple Model of Financial Resources-Performance Relationship](image)

Note: Significant relationship in this data analysis \*p < .05. \*\*p < .01. \*\*\*p < .001

This result, however, is seen as only provisional, as it ignores the impacts of other, possibly relevant, variables. Before conclusively accepting this result, the simple relationship is incorporated into a more sophisticated model and investigated further in the subsequent analysis, discussed in the following section.

### 6.6 Discussion of the Further Research Hypotheses

The findings for Research Questions One to Two have been discussed above (Section 6.5). To facilitate the answering of the further research questions, there are specific hypotheses relating to each of the research questions. The results for hypotheses associated with Research Questions Three to Six are now discussed and the discussion of Research Question Two is also developed further.

**H1: Education is related positively to firm performance.**

From a general perspective, the results of this research suggested that the level of education shows some significant impact on firm performance. Most of the effects are not significant, only one aspect is significant. Specifically, that the CFO holds an MBA
degree is positively related with firm performance, which provides partial support for hypothesis one.

According to the upper-echelon theory, education attainment is considered a good proxy for high levels of knowledge base and intellectual competence that are consequently related to superior corporate performance (Hambrick & Mason 1984; Cheng et al. 2010). As such, it is expected that a higher education level of CFO leads to better firm performance. A number of previous empirical studies provide evidence that the educational level of senior executives is positively associated with performance. For example, Hambrick et al. (1996) showed that the growth in market share and profits are significantly associated with the education level of the top management team. This aligns with the findings of Golec (1996) who asserted that better performance is significantly impacted by managers with MBA degrees. Using a sample of Forbes 800 US firms, Jalbert et al. (2002) found the evidence to indicate that CEOs that have a graduate degree earned from Harvard University is positively related to return on assets (ROA). The results of this research are also consistent with Gottesman and Morey (2006) who found that firms with managers who hold MBA degrees had superior performance over firms managed by managers without MBA degrees. Bhagat et al. (2010) presented findings on both sides, negative and positive, about the impact of CEO education on firm performance. They provided empirical evidence that a CEO with an MBA degree would be able to lead to short-term improvements in firm performance. On the flip side, they failed to find any significant relationship between CEO education and long-term firm performance. Kong and Zhang (2010) investigated the interacting and feedback effects between managerial education attainment and performance in Chinese publicly listed companies. They found that a manager's educational level generates a positive effect on the firm's operating and market performance. Cheng et al. (2010) hypothesised that education level of top executives is important and reflects valuable resources of the firm.
They examined 5339 firm-year events of the listed Chinese firms. The findings render support to the hypothesis that formal educational attainment exerts significant influences on both the firm’s performance level and growth. Recently, Darmadi (2013) examined the influence of the educational qualifications of board members, including the CEO on the financial performance of Indonesian listed firms. The findings demonstrate that that the educational backgrounds of board members matter to firm performance.

At the same time, the results did not support the Lindorff and Jonson (2013) study, which showed that, at least in Australia, there does not appear to be a relationship between MBA, business, or other qualification of the CEO and a firm's financial performance. They suggest that one of the possibilities for the lack of a relationship between CEO business education and such performance is that CEO characteristics other than education are associated with success. Firm performance may either be due to CEO factors which are difficult to develop externally, such as intelligence or personality, or to knowledge or skills which are either not taught in business schools, which are taught without success, or which are available through a business education but are also available from other sources. The result in this thesis is also contrary to a study by Gottesman and Morey (2010), who found that the educational background of the CEO is not related to financial performance. Specifically, firms managed by CEOs with MBAs performed no differently than firms with CEO who hold other graduate degrees. They argue that the amount of time between of the CEO’s completion of the degree(s) and the attainment of the position of CEO can be sufficiently lengthy to diminish any benefit that can arise from such education. Thus, a CEO’s MBA may not impact firm performance. The results of the present research do not agree with their findings. Those studies, which did not find an MBA effect did not pay attention to financial resources, learning orientation and CFO experience variables. It is after accounting for such effects on
performance that the CFO MBA effect is seen. Also, the present research concentrates on the SME context, where the MBA may be more differentiating.

Apparently, the business administration background has become more valuable and important for CFO than professional qualifications such as CPA or CA. The fact that MBA was found to be related to firm performance may be reflective of the importance of maintaining a fit between firm performance and business environment. Placing the CFO at the heart of the firm’s decision making structure, a firm needs a CFO who not only has a background of technical and functional expertise but also displays strong business skills to exploit new opportunities to strengthen their position in a market. A CFO with a wide functional background could bring new and broad insights and exposures, thereby could open up a new ways of improving firm performance.

The findings can be interpreted as implying that MBA degree should not be treated as a token of representation to education level but as a source of invaluable input to the CFO that results in firm performance. MBA degrees indeed provide cross functional knowledge that could help to broaden the understanding and skills of a CFO to take the business to new markets and growth levels. This is particularly interesting given that CFOs with different abilities, skills, competencies and knowledge are strategically important and likely to affect a firm’s performance. Knowledge gained from MBA degrees may enhance a CFO’s ability to identify inefficiencies, gaps and risk in the market in order to increase firm productivity and performance. They should be able to provide clear and objective analysis as well as generate more detailed decisions that demonstrate a capability set beyond a professional qualification. Firms managed by a CFO with a broad educational background had better chances of improving their performance outcomes than those with a CFO who only had a technical knowledge.
Seemingly, an MBA degree should appear to be one of the considerations in the appointment of CFOs. In this research, a business administration background is useful for the improvement of performance. Thus, firms that have a CFO with an MBA degree qualification are able to draw on the knowledge and skills gained from MBA studies as a valuable contribution to firm performance. Past scholars also provide empirical evidence that hiring new chief executives with an MBA leads to improvements in firm performance (example, Golec 1996; Gottesman & Morey 2006; Bhagat et al. 2010). This is a good insight for SMEs as it points to the potential benefits of having MBA degree.

**H2: Financial resources are related positively to firm performance.**

This research hypothesised that financial resources is related positively to firm performance. At the simple level of positive correlation between these two measures, this was confirmed. But in the context of a more in-depth analysis of a more complex model, contrary to expectations, financial resources is insignificantly related to firm performance. The only aspect of financial resources impacting on performance is education, specifically MBA degrees (and this is more a management than financial qualification). It appears that the other two factors of financial resources, namely financial knowledge and financial awareness of financial reports, did not add value to firm performance. This finding is contrary to hypothesis two. It indicates that the reality is more complex than it might at first appear, and understanding requires consideration of both the components of financial resources and of other, related, concepts (such as learning orientation).

Financial resources are among the factors that could influence the performance of the firm. However, in this research that is not the case. On the surface, the insignificant impact of financial resources on firm performance seems somewhat surprising. One possibility reason for rejection of the hypothesis could stem from the fact that majority of
the CFOs had CPA or CA qualifications. Financial resources are likely to be possessed through these professional qualifications. The level of qualifications is often demonstrated in literature as a good proxy to complement for one’s knowledge, intellectual abilities and skills (Cheng et al. 2010; Hambrick & Mason 1984). In the present research, the professional qualifications play a distinguishing role in determining a CFO’s financial resources. It is certainly possible that the CFO’s qualifications have a critical influence in determining the performance of the firm. CFOs holding the CPA or CA qualifications may wield considerable judgment in decision making processes, thereby improving the performance of the firm. Apparently, because of the general presence of CPA or CA qualifications, variation in the performance as a product of accounting qualification is small.

H3: Learning orientation is related positively to firm performance.

This research hypothesised that learning orientation is related positively to firm performance. The results confirmed that learning orientation has a significant impact on improved firm outcome, contributing support for hypothesis three. Apparently, a firm’s ability to build learning orientation is a crucial driver for firm performance.

This supports the findings of prior research that have reported a positive impact on firm performance (Baker & Sinkula 1999; Calantone et al. 2002; Michna 2009; Wang 2008). Kropp et al. (2006) empirically show that business venture performance is positively related to a learning orientation in South African firms. Focusing on a sample of SMEs in the UK, Spicer and Sadler-Smith (2006) demonstrates a significantly and positively link between learning orientation and firm performance. Additionally, Michna (2009) studies the relationship between organisational learning and SME performance in Poland. Their key findings show that a high level of organisational learning has a positive influence on

Some prior research has failed to demonstrate a significant relationship between learning orientation and firm performance. For example, Emden et al. (2005) in their sample of 1,800 technology companies, they are unable to find a direct relationship between learning and the firm’s financial performance. In 2009, Liao and Wu fail to show a positive relationship between organisational learning and organisational performance. Laukkanen et al. (2013) recently reported no significant empirical evidence of a positive relationship between learning orientation and performance among Finnish SMEs. Although, these studies that postulate the contradictory findings, there is large evidence to support a positive link between learning orientation and firm performance, to which the current study contributes.

The research suggested that a process of learning orientation enables firms to implement new practices and strategies that can enhance their performance. It is asserted that firms who understand the importance of learning orientation practices will be in a better position to effectively design necessary strategies to enhance firm performance. Nevertheless, a vast number of SMEs do not devote any resources to improving their learning orientation (Dalley & Hamilton 2000). In the face of the current volatile and uncertain market environment, many firms are trying to survive and stay competitive. Learning orientation becomes a prerequisite for securing firm performance. Learning orientation influences the degree to which firms are likely to promote generative learning as a long-lasting core competency (Sinkula et al. 1997). Nonetheless, possessing learning orientation goes beyond merely acquiring and transferring skills and knowledge. It involves a firm’s ability to constantly question their norms and traditional practices in order to anticipate changes in the market demands. As a firm becomes larger,
commitment to learning plays a crucial role in upgrading its assets and capabilities concerning its key activities (Wang 2008). Moreover, firms that committed to learning are likely to have better performance than their rivals. Not only do they learn from the successes of their competitors but also from their failures (Lant & Montgomery 1987; Narver & Slater 1990). Their ability to learn faster than competitors may be a key source of sustainable competitive advantage (Dickson 1992).

**H4: Learning orientation is a positive moderator of the relationship between financial resources and firm performance.**

Hypothesis four predicted that the strength of the relationship between financial resources and firm performance would increase as learning orientation increased. However, the results show that the interaction effect associated with Hypothesis four is not significant. Hence, Hypothesis four is not supported.

It is speculated here that it would be better for a firm to have a strong learning orientation. A strong learning orientation is likely to continuously enhance financial resources skills that can provide a strong means to keep a firm competitive in a market. Strong financial resources may lead to better decisions. However, the favourable effects of successful performance may be short lived if they are not oriented by learning practices that enable firms to constantly seek out new strategies and opportunities in responses to changes in the external environment. In the case of this research, the results showed that learning orientation leads to better firm performance. However, the level of financial resources on firm performance is not moderated by learning orientation.

**H5: CFO experience is related positively to firm performance.**

Contrary to the research hypothesis, the results showed that CFO experience exerts no significant influence on the firm performance. It seems that having more financial
experience does not assist CFOs to provide better insights for decision making and eventually to lead positive firm performance. The results render no support for hypothesis five.

A study by Wei et al. (2005) has provided some evidence that this is the case. Using a sample of publicly listed firms from a variety of industries, they found negative relationships between chief executives experience with firm performance. Similarly, Warren and Thomas (2005) found a negative association between management experience and return on assets. Interestingly, a meta-analysis done by Abhishek and Hun (2008) revealed that top management teamwork experience has no relationship with firm performance. This meta-analysis provided a robust result that CFO experience does not necessarily ensure that firms will perform better.

However, the result of the present research is inconsistent with findings of Aldamen et al. (2012) and Shiah-Hou and Cheng (2012). They posited that board committees with more experience are more likely to have an economically positive impact on a firm’s accounting and market performance.

Focusing on a sample of sixty companies from the Fortune 500 list, Schwenk (1993) found quite contrary findings as to whether work experience of the top executives lead to better firm performance. The author provided empirical evidence that a team whose members have longer work experience would be able to design more effective strategies, leading to better firm performance. But the author failed to find support for the idea that firm experience is directly associated with better performance to a significant degree.
One reason for the finding here could be the extensive past experience attained by CFOs. Most of them already had work experience of more than twenty years (refer Table 5.3) and hence, the CFO experience variation in this research tends to be small.

Nevertheless, under some circumstances CFO experience can be linked with several liabilities. It appears that, CFO with long experience may become more resistant to change due to organisation inertia and complacency. According to Miller (1994), inertia may impact in many aspects of structure and strategy-making process of firms. It may drive out-of-date experiences and inefficient practices that may decrease decisions quality. Logically, this resistance constitutes a major source of deteriorating firm performance.

Finally, it is also important to note that superior firm performance is not always obtained from CFO experience. Highly experienced CFOs may be skilled, but perhaps sometimes less adept at responding to changes in the market environment (Miller 1994) in developing new knowledge and new strategies. As a result, their strategies can reflect out-dated approaches and thus, becomes less attuned to market changes. These negative impacts of CFO experience may be considered “the liability of staleness” (Starr & Bygrave 1991, p. 222). Hence, the advantages that accrue in benefiting from their work experience are diminished away with inefficiencies and unprofitable performance.

Today’s business climate has changed the way CFO experience really works. The business world is becoming more complex and CFOs are no longer able to rely on the same known frames of experience and approach. Prior success does less to help subsequent success (Miller 1994). It requires them to understand the impacts of business decisions in a more nuanced way. Ideally, there is a need to address problems from different directions and different vantage points and not depend on established
experience to make informed strategies. In essence, a CFO must be responsive to emerging insights and knowledge from both within the firms and the markets.

It is possible that professional qualifications of CPA or CA as well as work experience of more than twenty years in the industry emerge as a function of this relationship. Indeed, both explicitly provide CFOs with financial knowledge and capabilities and high work experience that would help them to make informed financial decisions and hence improve firm outcomes.

Although for many years, financial resources and CFO experience have been a crucial elements in a world of business transactions, nowadays it seems there is a shift from technical knowledge (financial resources) and experience to more systemic knowledge that being key to decision making. This could be one of the reasons why the financial resources and experience that has guided CFO in the past is now less relevant. In the face of these changes, firms can no longer rely on the financial resources and experience that made successfully in the past. CFO must work to engage the firms in the new rational decision making. For example, instead of discovering market opportunity and then finding the solutions to take advantage of it, firms should invent the solutions first, realised its potential and then searched for application for it.

Indeed, CFO experience does not guarantee success in future business performance. These rationales can explain why the results found no evidence of a positive relationship between CFO experience and firm performance.

**H6: CFO experience is a positive moderator of the relationship between financial resources and firm performance.**
Hypothesis six predicted that the strength of the relationship between financial resources and firm performance would increase as CFO experience increased. However, the results show that the interaction effect associated with Hypothesis six is not significant. Hence, Hypothesis six is not supported.

Apparently, the discussions above with regard to the findings that CFO experience does not directly impact on firm performance, would logically apply here in understanding why it does not amplify or diminish any financial resources-firm performance effect. A possibility along the lines of the discussion of the insignificance of accounting qualifications is that most CFOs are well qualified and highly experienced. An alternative explanation for the insignificant effect might consider highly experienced CFOs may be subject to bias blind spots such as over-confidence. This may decrease their decision quality and thus lead to lower performance. Thus, no moderating effect is consistent with neither direct effect impacting on performance.

Taking another perspective, human capital (Becker 1975) and upper echelons theories (Hambrick & Mason 1984) have contradictory views on the possible effects of top management teamwork experience and skills on performance. According to human capital theories, work experience is a good index for firm-specific capabilities to improve firm performance. Conversely, upper echelons theory argues that high work experience is a cause of inertia and can serve as detriments to performance. Perhaps, this is the reason CFO experience was not a significant moderator in the analysis.

To sum up, it is clear that the level of education and learning orientation of the firm are related to firm performance. However, the effects of financial resources and CFO experience on firm performance are small and insignificant relationship in this research.
6.7 Summary

MBA education is one of the key factors in firm financial resources and performance. A high level of education allows a firm to anticipate proactively market changes. Particularly, having MBA degrees helps CFOs to enhance their business understanding and practices that play an important role in improving firm performance.

While an education may keep a firm on a steady course, learning orientation may be more capable of driving a firm into a place of market dominance. Firms with both high level of education and learning orientation may be best able to uncover and respond to market opportunities, hence improve firm performance.

CFOs have strong quantitative skills as well as financial and accounting acumen, but strategic knowledge and thinking have become more important. Apart from continuing to perform the traditional role of managing the finances, CFOs’ work now involves assisting CEOs and their firms to exploit new opportunities to strengthen their position in a market.

With respect to financial resources, the results showed that this asset has significant impact on firm performance, when learning orientation and CFO experience are excluded. However, when the relationship is investigated further, it is demonstrated that the level of financial resources is insignificantly related to firm performance. In addition, this research did not find any significant interaction effect of learning orientation and CFO experience on the relationship between financial resources and firm performance. These findings are important because they add to existing literature in the field of entrepreneurship and financial literacy and management, particularly on SMEs.
Overall, the results from this research indicated that to boost SME firm performance, a CFO with an MBA and a learning orientation in the firm should be a key part of the firm’s strategy.
CHAPTER SEVEN
CONCLUSIONS, IMPLICATIONS AND FUTURE RESEARCH

7.1 Introduction

This chapter is organised as follows: Section 7.2 describes the research conclusions and contributions. Section 7.3 describes the theoretical and applied implications of the research with respect to the overall study area. The research limitations are outlined in Section 7.4. Section 7.5 identifies avenues for future research based on the implications of this study’s findings. Finally, Section 7.6 concludes with an overall summary of contributions.

This research was guided by six research questions. The first two research questions focus on financial resources and identify the dimensions of financial resources, and develop a firm-level measure of financial resources and determines its impacts on performance. The next two questions address the level of learning orientation and CFO experience and their impact on firm performance. The final two questions examine the effect of interacting factors on firm performance.

Research on financial resources is a relatively new field of social science research. The present research has relied on the financial literacy literature in order to develop a financial resources construct at the organisational level. There is a compelling body of evidence highlighting the importance of financial knowledge and capabilities and there is a broad range of measures, which focus on the individual, (Monticone 2010; van Rooij et al. 2011a). Despite this scholarly work, few studies have empirically investigated how these critical financial resources are influencing the performance of the firm, particularly in relation to SMEs. Firms and their success exist because of people that run them. It is
important to understand whether financial knowledge and capabilities play a significant role in that success.

This research project aimed to investigate whether financial resources and capabilities that operate within the affect firm performance. The finance specific resources and capabilities have been studied in conjunction with more general resources, such as those based on general leadership and learning skills. Learning orientation has been identified as a lasting source of a competitive strategy essential for firm survival (Calantone et al. 2002).

This research focuses on SMEs in Australia because the strength of the country’s economy has a significant link with the health of SMEs sector. Despite the increased number of SMEs in Australia, the rate of business failure is high. Given this scenario, this research attempts to provide new insights for SMEs concerning the value of financial resources, learning orientation and CFO experience. Such inputs are not only the ongoing sustainability of SMEs’ performance, but also for the growth of the economy as a whole.

7.2 Conclusions and Contribution from Research Findings

The aim of the research was to examine the impacts of financial resources, learning orientation and CFO experience on firm performance within Australian SMEs.

With regards to financial resources, this research explored and developed a theory that connected financial resources and firm performance. Previous research has focused on analysis of individual’s financial knowledge and capabilities, which is most often associated with making individual informed decisions. Financial knowledge and capabilities in this research are recognised as a firm-level phenomenon, referring to
resources that may be held by an individual, a small firm or the strategic business unit of a large firm. Addressing financial resources at the firm level emphasises the role of such resources as a means of strategic renewal and growth for emerging as well as existing firms.

Figure 7.1 provides a graphical overview of the theorised determinants of SME performance.

Figure 7.1: Final Model

Note: Dashed arrow denotes insignificant relationship in this thesis’ data analysis:

*\(p<.05\). **\(p<.01\). ***\(p<.001\)

Figure 7.1 shows that education and learning orientation are critically important for firm performance. This finding suggests that firms do not require extensive years of financial experience or financial resources (financial knowledge, financial attitude towards risk taking and financial awareness of financial report) to be successful. It may be the case that this specialised financial knowledge can be acquired externally.
The final framework can be seen as a practical model of advice that can be used by SMEs in Australia seeking good performance. The results indicate that general learning and management skills may be more important than domain specific resources, even in a seemingly important area such as Finance.

This research sought to answer six research questions. The first two research questions concerned the factors that constitute the financial resources construct and the instrument for measuring it.

**Research question 1:** What constitutes the financial resources construct?

One of the objectives of this research is to clarify the nature of the financial resources construct and to propose a framework for examining the relationship between financial resources and firm performance. The financial resources scale, based on financial resilience insights and research, was specifically developed for use in this research. The dimensions of financial resources were first developed and the usefulness of a firm’s financial resources as a multidimensional construct was discussed.

In answering this question, Factor Analysis was used to essentially explore and verify the dimensionality of the financial resources construct. Initially, financial resources were described as four sub-constructs, namely education, financial knowledge, financial attitude and financial awareness. After analysis, it was found that the financial resources construct consisted of education, financial knowledge and financial awareness of financial reports. Financial attitude towards risk taking did not load on the same factor. Consequently, the financial attitude measure was excluded from the financial resources scale. In this research, educational attainment describes a form of learning in which skill and knowledge are acquired. It is a general reflection of intellectual capability. Financial
knowledge refers to the possession of competence and knowledge in relation to financial matters. Financial awareness of financial reports captures the capability to maintain and use information in financial reports.

The developed instrument has been tested and was found to be valid and reliable. To achieve content validity, a thorough review of the literature in the research field was undertaken, and a pre-test as well as a pilot study was undertaken. As a test of criterion validity, the assessment of the properties of the scales and the correlation coefficients between instrument scores were calculated. Factor analysis was used to assess the construct validity of the instrument to determine the appropriate factor representations for the items. Additionally, internal consistency of the instruments was tested and presented a high level of reliability. Given these results the financial resources measure developed in this research is considered a valid instrument for capturing SME firm-level resources and capabilities.

**Research question 2:** Does financial resources measured at the firm-level explain firm performance?

The key to this question was to first develop a firm level financial resources measure. In addressing this question, apart from statistical analyses, a pre-test and a pilot study was also undertaken in order to develop a valid and reliable research instrument for financial resources, particularly for explaining its relationship to firm performance. These procedures are an important contribution to the field because previous studies have not yet developed a financial resources measure at the firm level.

A simple regression of firm performance on this financial resources measure found a significant impact. Thus, financial resources measured at the firm-level does appear to explain firm performance. This research is the first study to provide a valid and reliable
survey instrument for measuring financial resources at the firm level. This newly
developed instrument is a significant methodological contribution. Aside from examining
firm performance, the instrument could additionally assist in identifying the relative
strengths of different levels of financial resources in its distinctive factors. It certainly
facilitates firms to identify areas that may need further attention and development.
Although, this instrument is developed for measuring financial resources in the SME
sector, it may also be applied in other samples and contexts.

It was found that of the dimensions of financial resources, only education was
demonstrated to have a positive and significant influence on firm performance. The
impact of education level was only via holders of an MBA degree. The MBA degree
which is a generalist business leadership degree can be seen as a firm resource that can
improve SMEs performance. This is because this degree focuses on running an entire
business and its inter-relationships. It does not just focus on one aspect of the business.
Apparently, heterogeneity in selection top manager’s cognitions has an effect on firm
performance (Bhansing et al. 2012).

On the surface, the insignificant influence of financial knowledge and financial
awareness of financial reports in SMEs performance seems somewhat surprising. The
issue of lack of financial resources in SMEs has been described in the literature as a
failure factor for performance (Halabi et al. 2010; Andoh & Nunoo 2011). These
resources have been argued to be important for SMEs since they help them to make
informed decisions (Argilés & Slof 2003). The attainment of professional qualifications
arguably enhances the CFOs financial skills in the firm. This is an important finding in
this research as it also indicates that domain specific resources and capabilities may be
less important than more general management skills and general learning assets as is
discussed next.
It was found that education attainment, particularly of an MBA degree, is an influential predictor that drives better performance in SMEs. Seemingly, the business administration background has become more valuable and important for a CFO than professional qualifications such as CPA or CA. Placing the CFO at the heart of the firm’s decision making structure, a firm needs a CFO who not only has a background of technical and functional expertise but also displays strong business skills to take the firm to new markets and growth levels. MBA degrees indeed provide cross functional knowledge that may bring broad insights and help to broaden the understanding and skills of a CFO to exploit new opportunities to strengthen their position in a market. Firms managed by a CFO with a broad educational background had better chances of improving their performance outcomes than those with a CFO who only had a technical knowledge. This finding contributes to the literature in the field and a useful insight for SMEs as it points to the potential benefits of an MBA resource.

**Research question 3:** How much does firm performance depends on learning orientation?

In addressing this question, findings indicated that learning orientation has a positive and significant relationship on firm performance. This means that in the context of Australian SMEs, being a learning oriented firm increases the chances of better firm performance. More specifically, these results underscore the importance of commitment to learning, open mindedness and shared vision practices to improve performance. As suggested by Sinkula et al. (1997), firms should give rise to a set of organisational values that influence the propensity of the firms to create and use knowledge. The ability for firms to foster learning orientation could be an enabler of a stable competitive advantage and allow a firm to react quickly to new environmental opportunities and threats (as per Slater & Narver 1995) and consequently enhance their firm’s long term performance.
Although, previous studies have discussed the importance of learning orientation on firm performance, little empirical research has been conducted to examine this relationship (Calantone et al. 2002). Therefore, the finding of this research provides a contribution to the existing literature on learning orientation.

In addition, this research provides empirical evidence supporting the use of a unidimensional construct measurement for learning orientation. This finding is consistent with the previous work (for example, Jiménez-Jiménez & Cegarra-Navarro 2007). Using factor analysis, from twelve items of learning orientation, nine items were loaded on the one construct, covering the three elements of commitment to learning, open mindedness and shared vision perspective. This provides another contribution to the learning orientation research.

**Research question 4:** Does CFO experience have an impact on firm performance?

In answering this question, the results found that CFO experience did not significantly influence firm performance. This result is in line with previous studies that have found that board members work experience does not significantly explain firm performance (Abhishek & Hun 2008; Warren & Thomas 2005; Wei et al. 2005). Again, this also shows that domain specific resources may be less important than previously thought. An alternative explanation for the insignificant effect might consider more experienced CFOs tend to have greater attachment to the status quo that develops an inertia of conventional wisdom (Miller 1994). Established experiences and practices may decrease their decision quality and lower subsequent performance in the face of market innovation and changes. In addition, some highly experienced CFOs may be subject to bias blind spots such as over-confidence. The findings of this research provides additional evidence to explain our understanding of the relationship between CFO experience and firm performance, an area that is empirically studied less often.
Research question 5: Does learning orientation affect and moderate the influence of financial resources of the CFO in firm performance?

The results suggest that the strength of the relationship between financial resources and firm performance would not be stronger when learning orientation is heightened. The combination of financial resources and learning orientation does not appear to improve firm performance. This interaction effect of learning orientation is consistent with previous studies (Baker & Sinkula 1999; Fang et al. 2014; Nasution et al. 2011). Again, the general learning orientation in itself seems more important than the combination of learning and financial resources and capabilities.

Research question 6: Does the experience of a CFO affect and moderate the influence of financial resources of the CFO on firm performance?

In addressing this question, no interaction effect was found between CFO experience and financial resources and capabilities. The strength of the relationship between financial resources and firm performance would not improve with increased CFO experience. This finding suggests that firms with higher financial resources are less reliant on CFO experience as a strategy to increase firm performance. It is likely that the improvement of firm performance occurs on many dimensions, not just those grounded in CFO experience. Previous research has not explored the interaction effect of CFO experience from a financial resources perspective.

This research provides a contribution to our understanding of financial performance through the use of FACTOR 92 (Lorenzo-Seva & Ferrando 2006) that was used for Factor analysis. According to Lorenzo-Seva and Ferrando (2006), FACTOR is designed as a general and user-friendly program for computing Factor Analysis. In addition, it implements traditional procedures and indices and incorporates the benefits of recent
statistical computing developments (Lorenzo-Seva & Ferrando 2006). For factor interpretation, the Promin-Weighted Varimax rotation was used (Lorenzo-Seva 1999).

7.3 Implications of the Research

This research has several implications for theory and practice in the fields of entrepreneurship, financial literacy and management.

7.3.1 Theoretical implications

This research contributes to the fields of entrepreneurship, financial literacy and management through its inquiry into the relationship between SME financial resources and firm performance. The domain specific financial resources construct developed in this research includes education, financial knowledge and financial awareness, and was validated through empirical analysis. It was found however that domain specific finance resources are less important for Australian SMEs than was expected. In addition, the development of a valid and reliable measurement instrument in this research provides a valuable methodological contribution for financial literacy research. However, it also verifies that much more work needs to be undertaken in this domain.

Another implication is based on the findings of the empirical tests of the model. Although, the importance of financial resources is often suggested as an issue for SMEs (Andoh & Nunoo 2011; Argilés & Slof 2003; Halabi et al. 2010), this research provides an alternative picture. The research appears to confirm that a key resource is general leadership education, particularly an MBA degree. The research found a direct significant effect of MBA degree on firm performance. However, no significant relationship was identified for financial knowledge and financial awareness of financial reports. These other dimensions did not appear to influence the performance of the firm,
nor did other levels of educational attainment. The implication of this research is that having a generalist business leadership degree is more important to the firm than specialised financial knowledge. Findings also suggest that education is likely to affect firm performance without the effect being further enhanced by CFO experience or learning orientation.

The research expands the existing knowledge of learning orientation and its relationship with firm performance. The literature has argued that there is little evidence for an effect of learning orientation on firm performance. While, previous studies have focused on the practice of learning orientation from a management utility viewpoint (Bapuji & Crossan, 2004), the analysis in the present research has been undertaken from the financial perspective.

This research finds that a positive relationship between learning orientation and firm performance does exist. At a factor level, learning orientation was primarily influenced by commitment to learning, open mindedness and shared vision. Of these three components, commitment to learning was found to be the most influential. This finding contributes to the literature regarding SME performance by confirming that commitment to learning is a crucial element of the learning orientation construct. The analysis of the learning orientation construct provides further evidence that learning orientation is a unidimensional scale (Jiménez-Jiménez & Cegarra-Navarro 2007). The developed framework and empirical findings in this research have made a contribution to expanding the body of knowledge in respect to learning orientation.

An additional implication of this research is to further the debate on the importance of CFO experience. Specifically, there is a lack of empirical research on CFO experience in explaining its relationship to firm performance. This research has empirically
investigated such a link in a comprehensive model that simultaneously assessed the construct on the relationship between financial resources and firm performance.

7.3.2 Applied implications

This research identified several practical implications that would be relevant to SMEs who wish to enhance firm performance.

Despite support from the government, SMEs in Australia continue to face many problems and their contribution to the development of the country’s economy continues to be important. Low levels of financial resources is a fundamental issue faced by SMEs, which has an impact upon a firm’s strategies, its decision making processes and ability-performance relationships. Specifically, the results indicate that the MBA degree plays a more significant role in firm outcomes than other qualifications. This research indeed sheds light on the importance of the CFO having a generalist business leadership degree like an MBA to SMEs, which can lead to better firm performance financially and strategically. Understanding business performance through the lens of a generalist business leadership degree is important because it provides knowledge and capabilities about the way they should manage the totality of their business operations. Apart from having technical skills, CFOs should have business-oriented capabilities so that they are able to react effectively to market changes. In other words, to be competitive, firms need to put emphasis on the non-financial aspects of the business and not focus solely on the financial.

The findings relating to learning orientation and firm performance suggest that the orientation is an influential predictor of firm performance. For SMEs, creating a learning-oriented environment can assist firms in increasing both their financial and strategic performance. Firms should view learning orientation as a firm-wide strategic initiative.
and enabler to be competitive. When faced with ongoing business opportunities and challenges, as well as developing new innovations, the emphasis on learning orientation is a necessity. Learning in an organisation should be seen as a key commodity to ensure firm survival (Baker & Sinkula 1999). It is speculated that learning oriented firms create new experiences and practices leading to new opportunities, which can drive performance outcomes. Firms must initiate opportunities to increase their learning orientation on a permanent basis in order to sustain performance.

In order to increase firm performance, results suggest that firms should encourage the values of commitment to learning, open mindedness and shared vision in their business ecosystems. Of these three factors, commitment to learning is the most important aspect of learning orientation to improve performance outcomes. In a consistently changing business environment, commitment to learning should be seen as an investment, not an expense (Baker & Sinkula 1999), with continuous efforts to sustain firm performance. Commitment to learning enables firms to pivot quickly and can be a key aspect of competitive advantage (Dickson 1992). Therefore, firms should encourage commitment to learning practices that enhance the values of continuous learning and thus achieve a sustainable performance. Open mindedness and shared vision practices need also to be of concern to SMEs as they can impact the success of their learning orientation. It is important for firms to continually judge or question the quality of their decisions and activities taken over time (Baker & Sinkula 1999). Moreover, the development of a shared vision provides agreement on firm vision across all levels and functions that helps to steer the direction of the firm (Baker & Sinkula 1999). Encouraging learning, can help firms in establishing good knowledge and capabilities that are needed for the improvement of firm performance.
Overall, this research provides a better understanding of the factors that affect SME performance. Firms need to pay attention to the education attainment and their learning orientation in order to better influence their performance outcomes.

7.4 Limitations of the Research

Part of the strength of any research project is to acknowledge its limitations (Dolen et al. 2004). While this research makes contributions to the financial resources management literature, there are limitations have to be highlighted. It is important to recognise and acknowledge limitations so that the validity, reliability and generalisability of findings can be properly assessed.

Research construct

One limitation is in regard to the financial resources and firm performance relationship constructs developed for this research. Drawing on RBV and KBV theories, this research used financial literacy studies to assist the research in conceptualising and operationalising a new construct of financial resources. A common understanding in the financial literacy literature is the importance of the financial knowledge and capabilities that is strongly related to decision making (Lusardi 2012). Accordingly, the examination of financial resources on firm performance in the present research provides new insights on the importance attributed to the financial literacy literature. The empirical results, however, did not find robust evidence of the relationship in a SME context.

Given the conceptualisation of financial literacy research, an alternative explanation for the insignificant financial resources-performance relationship may be that the financial literacy literature is difficult to integrate at the organisational level. Therefore, more studies are needed to develop an approach that can incorporate contributions from the
financial literacy literature into the broader organisational level performance studies.

Data collection methods

One challenge in understanding the importance of financial resources is to understand how to measure it. Utilising a quantitative method with questionnaires as has been done in this project is also one of the limitations inherent in the research. The strengths and weaknesses of quantitative research in developing specific and deep understanding are acknowledged. Future research could gather data on all variables from other sources to verify and validate the results. This new construct on financial resources and their relationship to firm performance may also need to be examined from a qualitative research method such as focus group interviews with industry practitioners. Future research may also employ mixed methods, which synthesises both qualitative and quantitative methods. Future studies are needed to validate the merits of consistent conceptual and operational definitions, which are needed in this endeavor of research.

Respondent’s position

Perhaps one of the most important limitations in this research is the key informant’s position used as the unit of analysis. Given the results, the research concludes that the position of CFOs in SMEs may have biased the results. The CFO position may have significantly influenced the perspectives of the respondents. Hiebl et al. (2013) find that CFOs in SMEs less often take responsibility for various finance and accounting functions compared to large firms.

Given that the methodological approach taken in this research is quantitative, robust statistical analysis allows for generalisability, reliability and validity (Cavanaugh et al. 2001). The respondents are chosen not on a random basis but because they possess special qualifications and knowledge, hence, they are most reliably able to provide in-
depth understanding and views on the research interest (Phillips & Bagozzi 1986). The use of such sample in quantitative research can increase validity and generality of findings (Campbell 1955). Although, the results lead to conflicting conclusions, this sample is uniquely different from other research because most have not investigated the role of CFOs in SMEs (Hiebl et al. 2013).

Unit of analysis

Another limitation of the research relates to the use of single key informant data. It is important when interpreting the findings of this research to take this into consideration as it may contain response biases. Although careful attention was given to identifying appropriate informants and no indication of common method problems was found, the potential for respondents’ bias to affect the observed relationships can still arise (Phillip 1981). All measures on financial resources, learning orientation, CFO experience and firm performance were assessed by CFOs of SMEs in Australia. The informants in this research may have exaggerated their evaluation of their financial resources, their experience, firm’s learning orientation and also their firm performance. Although, the Harman single-factor test showed that no common method variance problem was present, the results should be interpreted cautiously in light of this limitation. The significant positive relationships between education and firm performance, and the relationships between learning orientation and firm performance should be taken into consideration when interpreting results. Nonetheless, gathering data from multiple informants to minimise potential response bias would improve confidence in the research.

Research measures

A further limitation of this research is that the research employed primarily subjective measures in the framework. It is common for CFOs to highlight their enterprise in a positive light, thus not giving a completely accurate picture of their firms true position.
The use of subjective performance measures may induce performance evaluation bias (Moers 2005). However, the findings confirmed that this bias was not an issue. Given that this research employed primarily subjective measures in the framework, it should also be noted that the use of perceptual rather than objective data for the firm performance might not depict the actual state. However, this kind of measure has been commonly used in previous studies (Baker & Sinkula 1994; Emden et al. 2005; Wang 2008)) because SMEs are reluctant to publicly reveal their actual financial information (Zulkifflı & Parera 2011). Even if these types of data are available, managers tend to protect their firms’ reputations, (Dess & Robinson, 1984; Sapienza et al. 1988). The research project was constrained by funding and time constraints, which precluded the research from using objective measures.

Time horizon

An additional limitation of the research is its short time frame. Using a cross sectional design with questionnaires limits the ability to capture the dynamics of the research variables over an extended period of time. Therefore, causal inferences could not be drawn from this research. For example, this research is unable to reveal whether financial resources predict improved firm performance or whether increased performance facilitates development of financial resources. Thus, longitudinal research could provide further insights into the nature of the causal link between financial resources and firm performance. Utilising longitudinal studies would enable a clearer understanding of the relationship of research constructs.

An additional limitation of this study is that the sample frame was confined to SME’s that are still in operation. Thus, the applicability of these research findings to firms that are no longer in existence requires investigation. Future research in this area would also benefit from longitudinal studies that allow the inclusion of firms that have ceased their
operations. Such studies may offer valuable insights into dimensions of business failures.

*Research sample*

Recognising the nature of the data, the generalisability of the sample is one of the research limitations. This research was conducted using a sample of Australian SMEs. The respondents came from multiple industries. It can be assumed that different industries would have different results. It is important to note that caution should be taken when generalising these findings to any specific industry, to areas other than SMEs and to other countries.

The research employs dummies to control for industry effects. Since different firms may operate in multiple industries, the function of industrial dummies may not fully ‘partial out’ the industrial effects (Wan & Hoskisson 2003). Future research could overcome this limitation by focusing on a sample from one industry only that would overcome the effects of industry differences. This might also make the dimensions that explain financial resources more distinct.

7.5 Future Research

This section presents recommended areas for future research.

*Research construct*

Referring to the insignificant relationship identified between financial resources and firm performance, future research needs to consider measures that better reflect the financial resources construct. Financial resources instrument can be strengthened through a series of further refinements. An examination of financial resources at the factor level could enhance and develop a better understanding of the factoral effects of financial resources.
on firm performance.

From an external perspective, the elements of external environment can be incorporated to the model. The impact of external environment factors that were not explored in the present research may affect the relationship between financial resources and firm performance. Cannella et al. (2008) found that external context (environmental uncertainty) and top management team diversity such as education are related, and the relationship between education and firm performance is moderated by the external context. Other scholars (Goll et al. 2008) found that external environment encouraged CEO education level in predicting better organisational performance. Thus, the inclusion of external environment could further explain the relationship between financial resources and firm performance.

Data collection methods

It could be valuable if future research were to consider the qualitative aspects of how the research variables influence firm performance. The findings of such method would contribute to deepening the body of knowledge necessary for better understanding the effects of financial resources on firm performance of SMEs. The integration of qualitative and quantitative method may generate more in-depth insights than a single method.

The use of a single informant in this research may lead the way for other studies to use a multiple informants approach when sampling. Replication of this research with a wider group of respondents and sectors, and (for example) aggregate scores at the firm level would help to explore the association between financial resources and firm performance from a different lens. There is potential for fruitful insights.
Research measures

Examining the strength of the relationships between the key variables and firm performance for SMEs using archival data remains an important task for future research. Specifically, the insignificant finding for the relationship between financial resources and firm performance using the sample of SMEs may be in some part an outcome of using CFO’s perceptions of firm performance. It is therefore important to consider moving beyond subjective measures. The use of objective measures for firm performance, in addition to subjective measures, may provide a better explanation of this link beyond those that can be extracted from a simple questionnaire method.

Time horizon - longitudinal design

In having high level skills and adopting a learning orientation, firms are greatly influenced by their developmental stage. Future research could investigate these issues employing a longitudinal method. Longitudinal studies may offer further insights in which the links of the research constructs can be examined over time.

Research sample

Taking into account the limitations of the research, there are opportunities for future research to explore the extent of key research variables across a wider range of samples and other contexts that would move towards more generalisable findings. A valuable starting point in this field may be a broader research setting with more than just two countries to examine. It would be may be worth making comparisons between countries such as China, where growth has been rapid and sustained.

Future research could also explore the question of whether firms who operate domestically require different financial resources from firms who operate internationally.
For example, to ascertain whether the role of education specifically an MBA would be as dominating in those countries than in the firms included in this research.

As an alternative, two way comparative studies could also be conducted within the same country to determine whether or not there are financial resources differences on firm performance. The suggestion has been made that financial knowledge and capabilities impacts on economic decision making (Lusardi & Mitchell 2014), opening up the possibility that different financial resources may be associated with a firm’s success.

Future research could also be directed towards establishing whether the financial resources, learning orientation and CFO experience needed for firm performance varies with the size of the firm. This would acknowledge differences based upon size to be distinctly recognised and to emphasise the form of other contributory factors in different contexts.

It would also be worth exploring the strength of the relationships from a specific industry sample. This would provide more information about the phenomena being studied. It can further identify whether variation in performance outcomes are influenced by the nature of industry in which firms operate.
7.6 Summary

The conceptual framework and findings of this research expand on current theories of entrepreneurship, financial literacy and management. Specifically, the research examined how firm performance could be amplified through financial resources, learning orientation and CFO experience. Interaction effects were also considered and examined for the purpose of ascertaining whether it was possible to further improve our understanding of the financial resources performance relationship.

This research tries to bridge the literature on financial literacy and firm performance. For example, the financial resources construct is conceptualised using insights from the financial literacy literature. Financial literacy literature is mostly at the individual level and this research is an attempt to broaden its application and link financial literacy to the RBV and KBV of organisations. The reason that this is considered is because firms are people assets organised to deliver goods or services. Firms do not exist without the highly trained individuals that manage them.

A quantitative approach was used in this research. Descriptive data related to financial resources, learning orientation, CFO experience and firm performance. The data for this research was collected from SMEs operating in all territories and states in Australia. A frame of 2,855 SMEs was drawn from the Dun and Bradstreet (Australia) database, covering ASX and ASIC firms. The firms for this research were selected according to the following criteria: first, the firms must have less than 200 full time employees and second, the firms must be located in Australia. Data was gathered through a key informant approach, which is consistent with previous studies (Coltman & Devinney 2007; Deakins et al. 2012). The key informants had control over all activities concerning financial resources, learning orientation and CFO experience and knew the overall performance of the firm.
The survey was conducted in two approaches, email and mail. A total of 2,855 questionnaires were distributed to potential respondents. The email survey contained an explanatory letter and questionnaire. In order to raise response rates, a mail survey was also used to supplement email survey responses. A total of 335 questionnaires were received, yielding an initial response rate of 12%. Ninety-four questionnaires were invalid. This resulted in a sample size of 241 firms, which is a response rate of 8%.

Data analyses were undertaken in four principal stages; data screening, factor analysis, multiple regression analysis and moderated regression analysis, using FACTOR 9.2 and SPSS 21.0. Descriptive statistics were calculated as preliminary fact finding in order to analyse and interpret the statistical attributes of the variables and sample. As part of the preparation and screening process, the data was tested for violations of statistical assumptions, and issues like missing data, outliers and multicollinearity were addressed. To provide further evidence of the validity of the refined measure a scale construction and validation procedure was implemented using Factor Analysis. To best capture the theoretical foundation, multiple and moderated regression analyses was used to test the research hypotheses, to test the plausibility of the theoretical model and to estimate the degree to which the independent variables influence firm performance.

The analyses presented mixed results. Based on investigations of the hypothesised relationships, education level, particularly the CFO having an MBA degrees and the firm learning orientation were shown to be the most significant drivers of performance. The research has found that the financial resources dimensions of financial knowledge and financial awareness towards financial report, and CFO experience, did not significantly influence firm performance. The wide spread presence of generally well qualified and experienced staff in a developed country like Australia may explain why both financial
resources and CFO experience did not appear as significant determinants of performance in this research. It may also be the case the specialised knowledge is acquired by the firm externally.

A further contribution of this research is the development of a theoretical framework that maps out the relative strength of the relationships between financial resources, learning orientation, and firm performance. This model enhances the understanding of these relationships in the context of SMEs. Given that so many things can go wrong in a SME, the performance effects of a set of financial resources may be less strongly related to overall performance.

The research further finds that including interaction variables in the model did not improve the relationships of financial resources and firm performance. Specifically, the interactions of learning orientation and CFO experience with financial resources does not significantly impact on firm performance. The results clearly suggest the level of education and learning orientation are important resources in the performance of the firm. This is not to say that financial resources and CFO experience are not important factors for firm performance. Rather, this research suggests that the benefits of having an MBA degree and the criticality of learning orientation go beyond having financial resources and CFO work experience.

The new conceptualisation of financial literacy as a firm financial resource has a direct impact on performance, when considered in isolation. But, when this is further analysed along with learning orientation, it was found that learning orientation is the more significant driver. Learning orientation is a wider, more encompassing, concept than the more directly bottom line focused financial resources concept. It appears that
the broader concept is the more powerful in the context of performance. This may occur because performance is assessed here in more than just financial terms.

Finally, given the conceptualisation of financial knowledge and capabilities that emerges from this research, an alternative explanation for the lack of support for a significant financial resources performance relationship needs to be identified. It may be the case that most CFOs in this study had CPA or CA qualifications. It is certainly possible that CFO’s qualifications have a vital effect in influencing firm outcome. Thus, variation in the financial resources variable may not be strong due to the general presence of CPA or CA qualifications.

This study found that the only aspect of financial resources impacting on performance is education, specifically MBA degrees. Firms need CFOs who can operationalise the strategic decision and provide value to the firms just like CEOs, but from the CFO seat. CFOs may have to take the lead in assisting their firms understand and measure how business environments can impact firm performance. In other words, CFOs need to be able to quickly adapt to changing demands and new information. It is not enough when the CFOs are looking only to finance variables for insights to assist the strategic and operational decisions of the firms. CFOs need to have broad business skills to improve firm performance along with their traditional financial scorekeeper roles.

Another possible explanation for the insignificant impact of financial knowledge and capabilities on firm performance could stem from the fact that the financial literary literature is problematic when attempting to integrate it into studies at the firm level. Additional research is needed to better understand how the financial literacy literature can contribute broader organisational level performance studies.
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INVITATION TO PARTICIPATE IN A RESEARCH PROJECT

Dear Participant,

My name is Norhayati Sulaiman and I am a PhD student at the Graduate School of Business and Law, RMIT University, Australia. I invite you to participate in my research project aiming to investigate the extent to which a firm’s financial resources influences firm performance of SMEs in Australia. My research is supervised by Professor Clive Morley and Professor Amalia Di Iorio.

Your participation will involve answering a survey which will take less than 10 minutes. The survey will consist of a set of questions where you will be able to provide your perceptions on financial resources, learning orientation and firm performance. You will not be asked to provide any personal information and/or personal records. The data collected through the survey will be analysed for my thesis and the results may appear in publications. Complete confidentiality is assured, as results will be reported in a manner which does not enable you to be identified. There are no apparent or hidden risks in participating in this research. You may choose not to answer any particular question and participation in this research is voluntary. You may withdraw from participating at any time.

Your contribution is important since you are the major stakeholder of SME performance in the country. Participating in the survey is a valuable opportunity for you to express how firm performance of SMEs can be improved through the integration of financial resources, learning orientation and your experience as CFO or key financial decision maker.

If you have any queries regarding this project please contact my supervisors Professor Clive Morley (phone: +6139925 0136, email: clive.morley@rmit.edu.au), Professor Amalia Di Iorio (phone: +613 9479 1220, email: A.Dilorio@latrobe.edu.au), or the Chair, RMIT Business College Human Ethics Advisory Network, GPO Box 2476V, Melbourne, 3001 (phone +61 3 9925 5596, email : bchean@rmit.edu.au). A free copy of the report detailing the results of the survey will be available upon request.

THANK YOU FOR YOUR PARTICIPATION AND CO-OPERATION

PLEASE RETURN THE QUESTIONNAIRE IN THE ENCLOSED PRE-PAID ENVELOPE
QUESTIONNAIRE

Please note that your responses will remain confidential.

There are FIVE (5) sections in this questionnaire. Please answer ALL questions by checking or selecting numbers that BEST describe your situation. Read each statement and decide to what extent it describes you. There are no right and wrong answers. This questionnaire will take less than 15 minutes to complete.

SECTION 1:   FINANCIAL RESOURCES

There are thirteen (13) descriptive statements listed in this section to describe your financial resources. Please indicate to what extent your organisation undertakes the following financial practices.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Neither</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Financial Knowledge

1 Our organisation is usually knowledgeable about its overall financial needs and goals. 1 2 3 4 5 6 7

2 Our organisation is usually knowledgeable when evaluating a variety of saving options. 1 2 3 4 5 6 7

3 Our organisation is not well informed on its investment prospects. 1 2 3 4 5 6 7

4 Our organisation is usually knowledgeable about the rate of return associated with each investment. 1 2 3 4 5 6 7

5 Our organisation is usually knowledgeable about the current market condition. 1 2 3 4 5 6 7

Financial Attitude towards Risk Taking

6 Our organisation has a strong propensity for high-risk projects (with chances of very high returns). 1 2 3 4 5 6 7

7 When confronted with financial decision making involving uncertainty, our organisation typically adopts a bold strategy in order to maximise the probability of exploiting opportunities. 1 2 3 4 5 6 7

8 When there is uncertainty, our organisation typically adopts a “wait-and-see” position in order to minimise the probability of making costly decisions. 1 2 3 4 5 6 7


9 Our organisation is aware of the existence of the International Accounting Standard Board’s International Financial Reporting Standards for SMEs. 1 2 3 4 5 6 7

10 Our organisation is not well aware on the introduction of a new accounting standard in preparing financial reports. 1 2 3 4 5 6 7

11 Our organisation is typically aware that financial statement data can provide meaningful insights into the financial performance of a business. 1 2 3 4 5 6 7
Our organisation is unaware that financial statement data enables to foresee the impending liquidity and financial crisis.

Our organisation is typically aware that financial statement data can provide concise guidance on an organisational goal.

### SECTION 2: LEARNING ORIENTATION

There are twelve (12) descriptive statements listed in this section to describe your learning orientation. Please indicate to what extent your organisation undertakes the following practices.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Neither</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
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<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Commitment to Learning**

1. Managers basically agree that our organisations’ ability to learn is our key competitive advantage.

2. The basic values of this organisation unit include learning as a key to improvement.

3. The sense around here is that employee learning is an investment, not an expense.

4. Learning in our organisation is seen as a key commodity necessary to guarantee organisational survival.

**Open Mindedness**

5. We are not afraid to reflect critically on the shared assumptions we have about our customers.

6. Personnel in this enterprise realise that the very way they perceive the marketplace must be continually questioned.

7. We rarely collectively question our own biases about the way we interpret customer information.

8. We continually judge the quality of our decisions and activities taken over time.

**Shared Vision**

9. There is a commonality of purpose in my organisation.

10. There is total agreement on our organisational vision across all levels, functions and divisions.

11. All employees are committed to the goals of this organisation.

12. All employees view themselves as partners in charting the direction of the organisation.
SECTION 3: FIRM PERFORMANCE

There are seven (7) descriptive statements in this section to describe your organisational performance. Please evaluate the performance of your business over the previous three years relative to your major competitors.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Neither</th>
<th>Strongly Agree</th>
</tr>
</thead>
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<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Financial Performance

1. Compared to major competitors, sales of our organisation have been increasing rapidly. 1 2 3 4 5 6 7
2. The operations of our organisation are very profitable relative to our major competitors. 1 2 3 4 5 6 7
3. Our return on investment (ROI) is higher than that of our major competitors. 1 2 3 4 5 6 7

Strategic Performance

4. The strategic position of our organisation in the market is very strong. 1 2 3 4 5 6 7
5. Relative to our major competitors, our organisation is very competitive in the market. 1 2 3 4 5 6 7
6. Our market share is very high relative to our major competitors. 1 2 3 4 5 6 7
7. We have been able to build a leadership position in our industry. 1 2 3 4 5 6 7

SECTION 4: BACKGROUND ON BUSINESS, OWNERSHIP AND MANAGEMENT OF BUSINESS

Please select on the most appropriate number that BEST describe your situation.

1. What is your gender?
   - Male 1
   - Female 2

2. What is your age?
   - Below 25 years 1
   - 25 to 30 years 2
   - 31 to 40 years 3
   - 41 to 50 years 4
   - Above 51 years 5

3. What is the highest academic qualification that you completed?
   - Less than HSC (year 12) 1
   - HSC (year 12) 2
   - Tertiary 3
   - MBA 4
   - PhD or Doctorate 5
   - CPA or CA 6

4. How many years of work experience do you have as CFO or key financial decision maker?
   - Below 3 years 1
   - 4 to 6 years 2
   - 7 to 9 years 3
   - 10 to 15 years 4
   - 15 to 20 years 5
   - Above 20 years 6

5. What is the number of years the firm has been in operation?
   - Below 3 years 1
   - 4 to 7 years 2
   - 8 to 11 years 3
   - 12 to 14 years 4
   - Above 15 years 5

6. Which ONE industry best describes your operation?
   - Agriculture, Forestry, Fishing 1
   - Mining 2
   - Manufacturing 3
   - Construction 4
   - Wholesale Trade 5
   - Retail Trade 6
   - Accommodation, Cafe, Restaurant 7
   - Transport and Storage 8
   - Information Tech 9
   - Communications 10
   - Finance & Insurance 11
   - Property & Bus Services 12
   - Education 13
   - Health & Com Services 14
   - Cultural & Recreational 15
   - Personal and Other Services 16
   - Other: __________________________ 17
7. How many full time employees does your firm have?
   - Less than 5: 1
   - 5 to 20: 2
   - 21 to 200: 3
   - More than 200: 4

8. What were your total sales last year?
   - Less than $200,000: 1
   - $200,000 < $1 million: 2
   - $1 million < $5 million: 3
   - $5 million < $10 million: 4
   - $10 million < $25 million: 5
   - More than $25 million: 6

SECTION 5: WILLINGNESS TO PARTICIPATE IN THE INTERVIEW

Are you willing to participate in an interview with the researcher in the future?
   - Yes: 1
   - No: 2

(please fill in the details provided below)

Details of potential participant for interview

Name: _______________________________________________________________________
Address: ___________________________________________________________________

Contact Details
   - Tel (Office): ____________________________
   - Fax (Office): ____________________________
   - Mobile: ____________________________
   - Email address: ____________________________

- End of Questionnaire –

- Thank you very much for taking the time to complete this questionnaire –
### Appendix 2: The Results of Preliminary Analysis - Univariate Outliers

#### Descriptives

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<th>Statistic</th>
<th>Standard Error</th>
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Appendix 3: The Results of Factor Analysis (FA)

Appendix 3.1: Details of Analysis

Participants' scores data file : F:\Data Analysis N=241\EFA\All

Scales.dat

Number of participants : 241

Number of variables : 33

Variables included in the analysis : ALL

Variables excluded in the analysis : NONE

Number of factors : 4

Number of second order factors : 0

Procedure for determining the number of dimensions : Minimum Average Partial

Dispersion matrix : Polychoric Correlations

Method for factor extraction : Minimum Rank Factor Analysis (MRFA)

Rotation to achieve factor simplicity : Promin

Clever rotation start : Weighted Varimax

Number of random starts : 10

Maximum number of iterations : 100

Convergence value : 0.00001000
Appendix 3.2: Adequacy of the Correlation Matrix

Determinant of the matrix = 0.000000027816825

Bartlett's statistic = 3969.6 (df = 528; P = 0.000010)

Kaiser-Meyer-Olkin (KMO) test = 0.86780 (good)

Appendix 3.3: Explained Variance Based on Eigenvalues

Eigenvalues of the Reduced Correlation Matrix

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<th>Cumulative Proportion of Variance</th>
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Appendix 3.5: Explained Variance and Reliability of Rotated Factors

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Appendix 3.6: Indices of Factor Simplicity

Bentler's simplicity index (S) : 0.96180 (Percentile 100)
Loading simplicity index (LS) : 0.39473 (Percentile 100)

Appendix 4: The Results of Simple Model- Model Summary

Model Summary

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<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
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a. Predictors: (Constant), NEW.FR

b. Dependent Variable: FP
Appendix 5: The Results of Initial Model

Appendix 5.1: Model Summary

### Model Summary

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<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
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<td>F Change</td>
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<sup>a</sup> Predictors: (Constant), AGE, TOTAL_SALES, Communications, AccommodationCafeRestaurant, Retail_Trade, Agriculture_Forestry_Fishing, Information_Technology, Personal_and_Other_Service, Construction, Cultural_and_Recreational, Wholesale_Trade, Property_Bus_Service, Manufacturing, Education, GENDER, Health_and_Community_Service, Less_than_five, FIRM_AGE, Finance_and_Isurance, Five_to_twenty, Mining

<sup>b</sup> Predictors: (Constant), AGE, TOTAL_SALES, Communications, AccommodationCafeRestaurant, Retail_Trade, Agriculture_Forestry_Fishing, Information_Technology, Personal_and_Other_Service, Construction, Cultural_and_Recreational, Wholesale_Trade, Property_Bus_Service, Manufacturing, Education, GENDER, Health_and_Community_Service, Less_than_five, FIRM_AGE, Finance_and_Isurance, Five_to_twenty, Mining, PhD_doctorate, HSC, MBA, NEW_LO, Less_HSC, Tertiary, WORK_EXPERIENCE, NEW_FR

<sup>c</sup> Predictors: (Constant), AGE, TOTAL_SALES, Communications, AccommodationCafeRestaurant, Retail_Trade, Agriculture_Forestry_Fishing, Information_Technology, Personal_and_Other_Service, Construction, Cultural_and_Recreational, Wholesale_Trade, Property_Bus_Service, Manufacturing, Education, GENDER, Health_and_Community_Service, Less_than_five, FIRM_AGE, Finance_and_Isurance, Five_to_twenty, Mining, PhD_doctorate, HSC, MBA, NEW_LO, Less_HSC, Tertiary, WORK_EXPERIENCE, NEW_FR, NEW_FR_WORK_EXPERIENCE, NEW_FR_NEW_LO

<sup>d</sup> Dependent Variable: FP
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a. Dependent Variable: FP
Appendix 6: The Results of Final Model - Model Summary

Model Summary

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b. Predictors: (Constant), TOTAL_SALES, MBA, NEW_LO

c. Dependent Variable: FP