The relationship between generic skills and organisational performance, and the moderating effects of employee engagement: a firm-level quantitative study in Australia

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Declaration

I certify that the substance of this thesis has not been submitted for any award degree and is not currently being submitted for any other degrees.

I also certify that to the best of my knowledge any assistance received in preparing this thesis, and all sources used, have been acknowledged in this thesis.

Wai Yin Florence LAU
20th June 2013
Acknowledgements

My dream has nearly come true as this challenging journey comes to an end. It’s been a hard, but an amazing journey. I have truly enjoyed every step, and the joy of overcoming all the challenges and obstacles. This is something that I have really wanted to achieve for a long time. I clearly remember the conversation I had with my grandfather when I was a young child, I said to him that I will work very hard and to achieve as academically high as I could when I grew up, and would like other people to refer as me ‘Dr Lau’. My grandfather replied ‘I will see, I believe you can do it and you will be the first Dr in our family history. I will definitely record it in our family book.’ Of course, for a nine year old child, I did not fully understand what a doctoral degree is, or how hard it would be to complete academic research, and to write a thesis like this one, but I was determined, I want to make my family proud and become someone successful, just like my father.

This thesis could not be completed without the support of many people, and I would like to express my gratitude to those whom I owe a tremendous debt for their assistance and support throughout my doctoral studies.

First, I would like to thank Professor Suresh (Serge) Mukhi, who was my supervisor during the first fourteen months of my doctorate candidature. He provided me with patient guidance, invaluable help and suggestions for this study, and his enthusiasm towards academic research has influenced me to do better.

The next person whom I want to thank is my current supervisor, Dr Peter W Wong. He has proven to be a supportive supervisor whose guidance and feedback has been invaluable throughout this study. His speedy responses to emails with answers to my queries helped me get through some difficult times as the study progressed. He was always willing to help.

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To my parents, Tina and Kin Chung Lau, I thank you for your unconditional love, faith, support and encouragement. You are my role models, as the examples of determine and persistence, to shape who I am today. Thank you for believing in me, and never giving up on me.

To my brother, Wai Fung Lau, thank you for your company in Australia for eleven years. We grew up together, shared our best days and learnt to be independent in Australia. I really missed those days when we were together and support each other. To my sister in-law, Milky Lau; and my nephews, Boris (Yin-Chit) and Yin-Yeung Lau; I love you all and thank you for cheering me up and giving me energy to continue this journey.

Finally, to my beloved husband, Steven James Zieba, I owe you everything- especially since we did not spend most weekends together for the past two years. Thank you for your love, understanding, patience, and untiring support throughout this process. I love you and I am glad that we accomplished this doctoral journey together.
Abstract

The emergence of the knowledge-based economy and high performance workplaces have contributed to the importance and increased demand for generic skills (Sung 2013; Grugulis & Stoyanova 2011; Ashton & Sung 2002; Field & Mawer 1996). These skills are now regarded as extremely important for business enterprises in the 21st century, in addition to technical competencies. There is a commonly assumed link between generic skills and performance, but the hypothesis seems to be absence of proof, since there is little empirical literature in this research field.

This research focuses on generic skills, particularly the importance of these skills for business success and their contribution to organisational performance. The main objective of this study is to investigate whether there is a significant positive relationship between generic skills and organisational performance; and secondly, to understand if employee engagement can intensify the contribution of generic skills to higher organisational performance. Data was gathered from 104 representatives of high performing enterprises in Australia. The findings show that generic skills such as communication, customer service and problem solving can significantly influence organisational performance outcomes, namely sales growth; return on investment; customer satisfaction; innovation development; and products and services quality. And, employee engagement does moderate the relationship between generic skills and organisational performance, which implies that skills utilisations and effects are in part dependent on the motivation and engagement of employees.
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<td>ABS</td>
<td>Australia Bureau of Statistics</td>
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<tr>
<td>ACCI</td>
<td>Australian Chamber of Commerce</td>
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<td>AIG</td>
<td>Australian Industry Group</td>
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<td>AIM</td>
<td>Australian Institute of Management</td>
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<td>BCA</td>
<td>Business Council Australia</td>
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<tr>
<td>CEDEFOP</td>
<td>European Centre for the Development of Vocational Training</td>
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<tr>
<td>CIDP</td>
<td>Charted Institute of Personnel and Development</td>
</tr>
<tr>
<td>DEST</td>
<td>Department of Education, Science and Training</td>
</tr>
<tr>
<td>HRM</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>IES</td>
<td>Institute for Employment Studies</td>
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<tr>
<td>ILO</td>
<td>International Labour Organisation</td>
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<td>ISR</td>
<td>International Survey Research</td>
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<td>NCVER</td>
<td>National Centre Vocational Education Research</td>
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<tr>
<td>NIERC</td>
<td>Northern Ireland Economic Research Centre</td>
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<td>NIESR</td>
<td>National Institute for Economic and Social Research</td>
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<td>NSTF</td>
<td>National Skills Task Force</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>RBS</td>
<td>Reserve Bank of Australia</td>
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Chapter One– Introduction

Chapter One provides an overview of this thesis. It presents background to the research, a discussion of the research problem and research questions, the objectives of the research, the theoretical framework and hypotheses and the research methodology. This chapter also discusses the justification and contributions of the research, identifies the research limitations, outlines the thesis structure and provides definitions of key terms. The overall structure of Chapter One is illustrated in Figure 1-1.

**Figure 1.1 Overall structure of Chapter One**

- 1.1 Background to the research
- 1.2 Research problem and research questions
- 1.3 Research objectives
- 1.4 Theoretical framework and hypotheses
- 1.5 Research Methodology
- 1.6 Justification for the research
- 1.7 Contributions of the research
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- 1.10 Definitions of key terms
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*Source: Developed for this research*
1.1 Background to the research

Organisations in today’s global economy are driven by knowledge, and the foremost wealth of a firm is its knowledge assets and human capital (Majumdar 2009). Continuing globalisation may lead to greater emphasis on adaptability and skills that facilitate collaboration across firms and countries (Toner 2011). As stated by Sanguinetti (2004), the emphasis on generic skills is part of the move towards developing ‘human capital’ to meet the demands of the ‘new knowledge economy’. Economic output is becoming more information and knowledge intensive and thus there needs to be a continual upgrading of the skills and competencies of the workforce. The emergence of the knowledge-based economy and high performance workplaces has contributed to the importance and increased demand for generic skills (Sung 2013; Grugulis & Stoyanova 2010; Ashton & Sung 2002; Field & Mawer 1996). Literature suggests that technical skills contribute to only 15% of one’s success while the remaining 85% comprises ‘generic skills’ (India Ministry of HRD 2009). As a result, in addition to job-specific technical competencies, generic skills are now regarded as more important for business enterprises in the 21st century. This is supported by research which illustrates why the changing nature of the workplace is creating this increase in the importance of generic skill sets (Green 2009; Sung et al. 2008; Canning 2007; Felstand et al. 2007).

While the Australian economy continues to grow, industries and business enterprises are expected to require more skills in order to remain flexible and competitive in a world of exponential change. In particular, Australia is experiencing structural change to its economy; that is, changes to the make-up of its economy. The Australian economy has constantly evolved, transforming from a manufacturing based economy to a services based economy (Austrade 2011). The shift from manufacturing to services is not confined to Australia. All modern economies are following a similar pattern and traditional physical/technical skills are no longer sufficient in the services based and knowledge-intensive economy. Businesses are now striving to generate greater productivity and improve quality, customer service, variety, speed and technical improvement, as well as innovation in products, processes and organisational structure and behaviour (Cairney 2000).
As organisations alter the way they are structured in order to compete more effectively, so too workers have the need to obtain a more complex range of cognitive and intellectual resources (Green 2009 & 1999; Cairney 2000). This involves a change in the types of skills required, with a rise in the importance of generic skills, including the ability of individuals to work more autonomously, be self-managing, work as part of flexible teams, provide excellent service to customers, adapt to change, solve complex problems, think creatively and engage with innovation as a continuous process (Forfás 2007, p.3). However, in Australia, skills gaps and a generic skills crisis remain as significant problems. Seventy-seven per cent of the almost 1,700 Australian executives and professionals surveyed in the AIM (Australian Institute of Management) Skills Gaps Survey in 2012 reported that their employees’ current skills are insufficient to meet current business objectives.

In Australia, the focus on generic skills began in the 1980s and was re-invigorated in the late 1990s and again in 2001 due to industry-led initiatives (NCVER 2003a, p. 3). In many respects, Australia has led the way in terms of the breadth and depth of the research and initiatives that addressed generic skills needs, especially since the early 1990s (Curtis 2004 & 2010). In the last two decades, Australia has expended tremendous efforts in developing generic skills. The two most influential skills schemes were developed during the 1990s and 2000s, namely the Mayer Key Competencies (Mayer Committee 1992) and the Employability Skills Framework (ACCI & BCA 2002). Both schemes identified a set of generic skills essential to education, training, employment and the workplace. However, most research and development has focused mainly on the integration of the Mayer Key Competencies and the Employability Skills Framework in teaching, learning, assessment and reporting practices, particularly in school and vocational training and the education environment (VET sector). The impact of generic skills on business performance has received far less emphasis in Australia (Moy 1999).

The organisational and human resource studies literature has a long tradition of interest in the interaction between skills and organisational performance, especially in the UK and US (Tamkin 2005). Over the last two decades, researchers have found considerable evidence of the value of skills to individual and to organisations. A range of studies has also shown the considerable contribution that skills can make to productivity and economic performance, and that differences between countries in the stock of human capital are important in explaining
economic growth differentials (Broadberry & O’Mahony 2004; Cambell & Giles 2003; O’Mahoney & de Boer 2002; OECD 2001). Hence, an array of studies have sought to explore the relationship between skills and organisational performance (Tamkin 2005), as improving organisational performance is a key aim of most organisations, and understanding what may make the difference in this area is of enormous value to managers and leaders.

The concept of ‘employee engagement’ has been a great deal of interest among HR professionals and researchers in recent years, and many scholars have claimed that employee engagement predicts employee outcomes, organisational success and financial performance (Richman 2006; Bates 2004; Baumruk 2004; Harter et al. 2002). Employee engagement defines as ‘the extent to which employees commit to something or someone in their organisation, how hard they work and how long they stay as a result of that commitment.’ In addition, engagement can be seen as a heightened level of ownership where each employee wants to do whatever they can for the benefit of their internal and external customers, and for the success of the organisation as a whole (Corporate Leadership Council 2004).

Various researchers such as Gambin et al. (2009); Tamkin (2005); Delany & Huselid (1996); and Field & Mawler (1996) note that skills are only one element of business success and that other factors correlate with effective performance. The contribution of skills will be limited if the employees are disengaged or not motivated to perform their jobs. In other words, the most educated, highly skilled and trained people may not do a good job if they are disinterested or de-motivated and therefore skills utilisation is dependent in part on the motivation and engagement of employees, their attitudes to their organisation, their colleagues, customers and their jobs (Tamkin 2005). Engaged employees believe that they can make a difference in the organisations they work for. Employees’ confidence in the knowledge, skills, and abilities that they and their colleagues possess – is a powerful predictor of behaviour and subsequent performance (Seijts & Crim 2006, p. 2).

This research examines the impacts of generic skills and employee engagement on firm-level performance.
1.2 Research problem and research questions

In line with the research background provided in Section 1.1, this study addresses the following research problem and research questions.

1.2.1 Research problem

It is common to assume that there is a link between skills and performance, yet the evidence tenuous (Grugulis & Stoyanova 2010, p. 515). Although there are considerable numbers of case studies and surveys which confirm skills do matter (UK Employer Skills Survey 2011 & 2010; Australian skills gaps survey 2012; Field & Mawer 1996), the existing empirical research into the relationship between skills and performance is rather limited, and not coherent (Lloyd & Payne 2004). There are also many views and arguments in regards to whether a link between skills and performance exists, and many studies seem to take as axiomatic that the connection does exist. This belief seems to be held despite the absence of proof (Grugulis & Stoyanova 2010, p.516). This thesis argues that a statistical relationship between skills, particularly generic skills, and organisational performance does exist, and the effects of these skills should not be underestimated.

In the past two decades, the UK government and the UK researchers have led the way in exploring the relationship between skills and performance. In general, various researchers (Felstead et al. 2007; Campbell & Giles 2003; Green et al. 2002 & 2003; Dearden et al. 2001) found that skills make a difference to organisational performance and to the prosperity of members of the workforce. Existing evidence shows that investment in training is associated with increases in productivity and higher returns occur when training is accompanied with human resource practices (Dearden et al. 2001; Blundell et al. 1999) and there is a strong relationship between qualifications, labour market outcomes and earnings (OECD 2001; Dearden et al. 2001), with a range of generic skills and basic skills being highly valued in the labour market (Green 2009; Green et al. 2002; Bynner 2001; Moser 1999). However, the current generic skills supply is not matching demand.

Tamkin (2005) argues that when looking at the evidence linking skills to organisational outcomes, scholars are in fact nearly always looking at evidence which uses qualifications or
educational attainment as proxies for skills because it is very difficult to measure or monitor skills per se. Qualifications and education indicators do not necessarily reflect the skills that a person has and uses in their work. Such indicators may reflect more about the personal characteristics of an individual rather than their skills, and in some cases, qualifications are merely formal certifications rather than true reflections of a person’s actual set of skills (Gambin et al. 2009). It is also difficult to agree that training is a good indicator of skill levels, usage or propensity to enhance performance, and nor is training necessarily about building skills (Grugulis & Stoyanova 2010, p.517). In terms of generic skills, Dickerson and Green (2002) found that they are not easily quantified and are typically defined in slightly different ways from case to case.

Despite a substantial amount of UK literature on skills and organisation-related outcomes such as productivity and innovation, academic research studies focusing solely on exploring the relationship between generic skills and organisational performance (e.g. financial performance and non-financial performance) are extremely rare and there is no direct evidence in regards to the effect of generic skills on performance (Mason et al. 2007; Galindo-Rueda & Haskel 2005; Harris et al. 2005; Haskel & Hawkes 2003). In addition, most of the published research does not identify generic skills and distinguish them from a single dimension of ‘skills’.

In Australia, while generic skills are promoted as enhancing the workplace performance of individuals and work teams, and consequently enterprises, there has been far less emphasis on researching the links between generic skills and organisational performance (Moy 1999). Although some consulting firm and practitioner surveys (AIM 2012; AIG & Deloitte 2008; Allen Consulting Group 2000 & 2006) have attempted to establish a link between generic skills and organisational performance, organisations driven by the bottom line require more rigorous empirical evidence to translate into practices that solve organisational problems. As a result, there is a lack of empirical research in this area and the unexplored statistical relationship between generic skills and organisational performance interests the researcher because it appears that this relationship has a far greater effect on organisations’ long-term growth than the literature suggests.
Field and Mawer (1996) suggest that generic skills cannot be considered in isolation from other factors that contribute to individual, team and organisational performance. While generic skills are only one ingredient in the recipe for effective performances and work teams (Moy 1999, p. 38), this thesis argues that employee engagement can intensify the effects of generic skills to achieve higher organisational performance. In other words, the impact of generic skills on organisational performance will be stronger when employees are highly engaged.

Based on the discussion above, the research problem for this research is ‘to investigate the relationship between generic skills and organisational performance, and to examine the moderating effects of employee engagement’.

1.2.2 Research questions

The following research questions will be addressed in this study for the purpose of developing a conceptual model to formulate hypotheses for this research:

1. What are the essential generic skills for business enterprise success?
2. How, and to what extent, do generic skills contribute to organisational performance?
3. What is the impact of employee engagement on organisational performance?
4. Does employment engagement influence and strengthen the relationship between generic skills and organisational performance?

1.3 Research objectives

The primary objective of this study is to investigate the relationship between generic skills and organisational performance. This research examines the impact of generic skills on organisational performance by evaluating the contribution of generic skills to business performance and success. This is a new study in the Australian research on generic skills because it introduces a new focus on organisational performance, and it is probably the first empirical attempt in Australia to examine the direct relationship between generic skills and organisational performance. This thesis argues that although the results may be somewhat
industry-specific they may reflect a true phenomenon in all top performing industries and companies. The findings of this research will also open up potential avenues for further research.

The second objective of this research is to test whether high levels of employee engagement can intensify the ability of generic skills to achieve higher organisational performance. Although the idea of this interaction makes sense conceptually there has been little empirical research conducted to test for this possibility. There is existing evidence on the direct relationship between employee engagement and organisational performance. However, existing Australian studies have not treated employee engagement as a moderator. The researcher believes that this research will contribute to the body of knowledge about skill development and a range of human resource practices, such as talent attraction and retention.

1.4 Conceptual model and hypotheses

The conceptual model for this study was developed from the literature review presented in Chapter Two, in order to explore the research problem and research questions, and develop the research hypotheses. The framework was used to investigate the impact of generic skills and employee engagement on organisational performance, based on the literature on skills and human resource management in a range of relevant contexts. This research attempts to build on previous studies by exploring the issue of generic skills in a previously unexplored context. For example, it aims to establish Australian empirical evidence on the relationship between generic skills and organisational performance, and examine whether employee engagement can influence the strength of the relationship. The theoretical framework, as presented in Figure 1.2, is used to test the research hypotheses developed in this study.

The approach adopted is the development of a research model to understand the relationship between different generic skills and organisational performance, and the moderating effect of employee engagement on this relationship. From the model, the following hypotheses were derived.
**Hypothesis 1**

Interpersonal skills have been described as mental and communication algorithms applied during social communication and interaction to achieve certain effects and results (Ahmad *et al.* 2010). The dimensions of interpersonal skills considered in this study included communication, teamwork and customer service skills. An important finding of the Allen Group survey (2001) suggests that key generic skills, especially those related dealing with clients and taking greater personal responsibility for quality output and services such as interpersonal skills (e.g. communication, teamwork, customer focus) are becoming increasingly important for organisational success, particularly for companies that are at the cutting edge of change. Therefore, H₁ is:

<table>
<thead>
<tr>
<th>H1: Interpersonal skills and organisational performance are positively related.</th>
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<tr>
<td>H1a: There is a significant positive relationship between communication skills and organisational performance.</td>
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<tr>
<td>H1b: There is a significant positive relationship between teamwork skills and organisational performance.</td>
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<tr>
<td>H1c: There is a significant positive relationship between customer service skills and organisational performance.</td>
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**Hypothesis 2**

Cognitive skills are learning, thinking, reasoning, problem solving and adaptability skills (Kearns 2001). In this study, the cognitive skills considered include problem solving and learning skills. According to the Australian Chamber of Commerce and Industry, and the Business Council of Australia (2002), problem solving skills contribute to productive outcomes. In high performance workplaces, there is a constant focus on solving problems in order to achieve overriding goals like customer service and quality. On the other hand, learning skills contribute to ongoing improvements and expansion in employee and company operations and outcomes. A study conducted by ACCI and BCA (2002) found that, all enterprises participated in their research recognised the importance of learning and skill development, and suggested that their employees needed to understand general aspects of the
economy and current affairs, and not just about the job at hand so that they could provide effective customer service (ACCI & BCA 2002, p. 44). Thus, the second hypothesis is:

<table>
<thead>
<tr>
<th>Hypothesis 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H2: Cognitive skills and organisational performance are positively related.</strong></td>
</tr>
<tr>
<td><strong>H2a:</strong> There is a significant positive relationship between problem solving skills and organisational performance.</td>
</tr>
<tr>
<td><strong>H2b:</strong> There is a significant positive relationship between learning skills and organisational performance.</td>
</tr>
</tbody>
</table>

**Hypothesis 3**

In this study, the dimension of planning, personal management and enterprising skills that were studied included: planning and organising; self-management; and initiative and enterprising skills. Planning and organising skills contribute to ongoing improvement and expansion in employee and company operations and outcomes. ACCI and BCA (2002) found that enterprises expected all employees in the full range of jobs to have good time management skills and strong project management capability. They also found that self-management skills contribute to employee satisfaction and growth; whereas initiative and enterprising skills contribute to innovative outcomes, and appear to be increasingly important as enterprises require their employees to show initiative in the workplace. Therefore, **H3** is:

<table>
<thead>
<tr>
<th>Hypothesis 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H3: Planning, personal management and enterprising skills are positively related to organisational performance.</strong></td>
</tr>
<tr>
<td><strong>H3a:</strong> There is a significant positive relationship between planning and organising skills on the one hand, and organisational performance on the other.</td>
</tr>
<tr>
<td><strong>H3b:</strong> There is a significant positive relationship between self-management skills and organisational performance.</td>
</tr>
<tr>
<td><strong>H3c:</strong> There is a significant positive relationship between initiative and enterprising skills on the one hand, and organisational performance on the other.</td>
</tr>
</tbody>
</table>
**Hypothesis 4**

The differences made to productivity by skilled employees will be limited, however, if they are not motivated to perform well in their jobs (Delany & Huselid 1996). According to Tamkin (2005), the most educated, highly skilled and trained people may not do a good job if they are disinterested or de-motivated and therefore, skills utilisation is dependent in part on the motivation and engagement of employees.

Employee satisfaction and engagement are related to meaningful business outcomes at a magnitude that is important to many organisations (Harter *et al.* 2002, p.276). Moreover, employee engagement affects the mindset of people. Engaged employees believe that they can make a difference in the organisations they work for. Thus, this thesis argues that employee engagement intensifies the effects of generic skills to achieve higher organisational performance. As a result, the final hypothesis is:

**H4: The positive effects of generic skills on organisational performance will be stronger when employees are highly engaged.**

- H4a: The relationship between interpersonal skills and organisational performance will be stronger when the employee engagement level is high.

- H4b: The relationship between cognitive skills and organisational performance will be stronger when the employee engagement level is high.

- H4c: The relationship between planning, personal management and enterprise skills on organisational performance will be stronger when the employee engagement level is high.
1.5 Research methodology

The initial investigation of the research problem was conducted through a literature review, which was summarised in Chapter Two. Based on the nature of the research problem, the research questions, and examples from the existing literature, a positivist paradigm was chosen for this study. This decision is justified based on the major purpose of this research, as it aims to measure the correlation between generic skills and organisational performance, and
to test whether employee engagement can influence and accelerate the strength of the effect of generic skills on organisational performance. As such, this study requires an objective research approach rather than a subjective one. The positivist paradigm is therefore appropriate for this research because the goal of the objective approach is to discover relationships between variables and produce generalisable knowledge (Ellis 2004).

Quantitative research was selected as the research approach for this study, because this research effectively seeks answers to set research hypotheses rather than attempting to build theory. In this research, a survey research approach was adopted and the research was conducted primarily by asking participants to complete a self-administered questionnaire via a web-based survey portal. This technique allows the researcher to reach a sample of respondents that is large enough to allow a statistical analysis of results. Furthermore, a web-based online survey allows participants to answer the questionnaire anytime at their own convenience within the survey period. The respondents to this research were busy senior executives and managers in the finance and insurance industry, and they indicated that an online survey was preferred as they could respond without feeling pressured by an interviewer during their busy day.

In this research, a questionnaire was utilised as a research instrument to investigate the relationship between generic skills and organisational performance and the moderating effects of employee engagement. The questionnaire comprised four sections and consisted of 15 questions; questions 1 to 10 were designed to obtain information from the surveyed finance and insurance institutions on the significance of different types of generic skills on business performance/success, employee engagement and company performance information; questions 11–15 capture general company information and details about the respondent’s profiles.

Data collection took place between April and June 2012. Top performing finance and insurance companies on the IBISWorld Top 2,000 companies list (as at 2011/2012) were selected as the target population for this study. There were a total of 218 financial and insurance companies listed in the Top 2,000 companies list. For the recruitment of survey participants, the researcher and her three colleagues contacted over 620 senior executives/managers via phone to obtain their email addresses to send out survey invites. One
hundred and fifteen email addresses were obtained. A total of 115 survey invitations were then sent via email; 65 were sent via the professional social network LinkedIn; and 38 were sent by post. This meant a total of 218 invitations – one to each of the 218 organisations. One of the strict rules of this study was that, only one senior executive/manager of each organisation was expected to participate in the survey since this is a firm-level study (one observation per firm). A pilot study was conducted prior to the main data collection process to test the effectiveness of the survey and ensure that the items in the final questionnaire were understood by potential participants.

The main data collection resulted in 104 completed surveys, which equated to 48% response rate from respondents who were working in top finance and insurance companies at the senior executive/manager level. Overall, the results were that interpersonal skills such as communication and customer service, and cognitive skills such as problem solving were highly valued in the finance and insurance industry for their contributions to organisational performance outcomes such as: sales growth; return on investment; customer satisfaction; innovation development; and products and services quality. On the other hand, the results also showed that the employee engagement level is generally high among the top performing finance and insurance companies.

This research utilised SPSS (Statistical Package for the Social Sciences) version 17.0 to analyse survey data in order to deliver empirical evidence for the study. Reliability tests and factor analysis (via principal components analysis) were used to test the reliability of all observed variables and reduce a large number of observed variables to a smaller number of factors (Tabachnick & Fidell 2001). Based on the analysis using coefficient alpha (Cronbach 1951), all variables showed acceptable/good/excellent reliability with the alpha value of major scales greater than 0.70 (Cronbach 1951). Correlation coefficient analysis was then used to analyse the significance of the relationships between each of the independent variables (communication skills, teamwork skills, customer service skills, problem solving skills, learning skills, planning and organising skills, self-management skills and initiative and enterprising skills) and the dependent variable (organisational performance). Hierarchical regression analysis was also used to analyse the moderating effects of employee engagement on the relationships of generic skills and organisational performance. The research
methodology is outlined in Figure 1.3. A detailed discussion of the results is presented in Chapter Four, Data analysis and review of empirical evidence.

**Figure 1.3: Research Methodology**

![Research Methodology Diagram]

*Source: Developed for this research*

### 1.6 Justification for the research

There has been strong interest in exploiting the advantages attributed to skills in the last two decades. Numerous researchers (Grugulis & Stoyanova 2010; Green 2009; Felstead *et al.* 2007; Moy 1999) found that skills make a difference to organisational performance and to the prosperity of the workforce. However, the literature reveals that empirical research on the relationship between generic skills and organisational performance is lacking. Especially, in Australia, much of the relevant research is based on case studies, consulting firms, employer surveys or other anecdotal evidence (AIM 2012; AIG & Deloitte 2008; Allen Consulting Group 2000 & 2006). The existing empirical literature (UK and US studies) tends to concentrate on skills as a single research dimension and uses investment in training, educational attainment and qualifications levels as proxies to establish their associations with
performance outputs, such as productivity and innovation outcomes (Mason et al. 2007; Galindo-Rueda & Haskel 2005; Harris et al. 2005; Haskel & Hawkes 2003). These studies have not offered any explanations for the effects of different types of skills (e.g. generic skills or technical skills) on organisational performance (e.g. financial and non-financial performance).

The review of literature also shows that academic research on the relationship between employee engagement and organisational performance is inadequate, as most of the studies to date are conducted by consulting firms (International Survey Research 2005; Corporate Leadership Council 2004; Gallup Organisation 2004). Employee engagement has not yet been treated as a moderator in the Australian literature, and it has not been considered in examinations of the relationship between generic skills and organisational performance. This study was conducted to address these research gaps.

In this study, the finance and insurance industry was chosen as the research domain for a number of reasons. The researcher aimed to select an industry that displays potential, competitiveness, dynamism and prosperity. After being considered against the background of structural changes to the economy as discussed in Section 1.1, it is concluded that the finance and insurance industry has the potential to become Australia’s major industry in the near future. In addition, researching the nation’s top performing finance and insurance institutions will allow the researcher to obtain a comprehensive understanding of essential generic skills and workforce behaviour such as employee engagement that can contribute to a top industry and top companies’ business success in a highly competitive domestic market, and in the Asia Pacific region.

This study breaks new ground. The findings would offer potential areas for further research in different industries within Australia and perhaps internationally.

In brief, this research can be justified on the following grounds:

- It is a firm/organisational level study.
- It examines the important area of top performing organisations in the Australian finance and insurance industry.
• It studies generic skills and employee engagement and these are important to organisations.
• Empirical research on the relationship between generic skills and organisational performance in Australia is lacking.
• It examines the moderating effect of employee engagement on the relationship between generic skills and organisational performance and this is an innovative research objective.
• The research outcomes will be of importance to industry, government and society.
• It contributes to human capital research and a wide range of HR practices.

An extensive literature review and a conceptual research model will be discussed in detail in Chapter Two.

1.7 Contributions of the research

This research contributes to the disciplines of human resource management and business management and is different from previous studies. The benefits of generic skills for improving organisational performance cannot be obtained unless appropriate measures are used. As mentioned in Sections 1.1, 1.2 and 1.6, many UK and US researchers have begun to explore the impact of skills on organisational outcomes (Spilsbury & Constable 2010; Gambin et al. 2009; Hogarth & Wilson 2002 & 2003; Neely & Hill 1998). However, previous research has often focused solely on the total concept of ‘skills’. These studies did not employ robust measures of skills and performance because of the failure to deal with sub-categories of skills (Grugulis & Stoyanova 2010), and there seems to have been no improvement to the concepts over the years. This research provides an empirically-tested model and examines the interrelationships among variables and it is probably the first empirical attempt to examine such direct relationships in Australia. Therefore, the measuring techniques developed and tested in this study contribute to the methodology used in this research context, particularly in measuring generic skills and organisational performance, and this provides improvement opportunities to other researchers.
In Australia, to the best knowledge of the researcher, there are no current empirical studies to date that focus on how generic skills affect organisational performance (both financial and non-financial performance), and the impact of employee engagement on this relationship. The knowledge gleaned from this study will enable practitioners to apply human resource management practices, skills development and business strategies more effectively in their organisations. A more detailed discussion on the contributions of this research will be presented in Section 5.6.

1.8 Delimitations, scope and constraints

This present study has some limitations, as does any research project. First, this research was undertaken from 2011 to 2012 and took place in a particular political and economic climate which included global economic uncertainties, the European financial crisis and the Australian economy slowdown. The economic climate may change from time to time and therefore, this research may get different results under different external environment conditions. Specifically, this study measures organisational performance and this will be impacted by a range of economic and political forces, which are in many ways beyond the organisation’s control.

The present study was based on survey research, and some respondents who were invited to participate in the survey did not wish to participate in the online questionnaire or did not have time to do so. The survey respondents are busy senior executives/managers and it was very challenging to persuade them to support this research, even though they agreed the research findings will benefit their company. Some of them were unable, or found it hard to commit 15 to 20 minutes to complete the survey. As a result, the survey results only reflect the views of those who were willing to share their responses on their company’s capabilities in terms of skills, employment engagement and business performance levels. In addition, no interviews were carried out due to the limitation of time and the preferences of the survey participants. Some additional interviews would have given richer data for analysis and conclusions.

Another potential limitation was sample size and the unique group responding to the survey questionnaire. The analyses and results presented in this thesis derive from the information
provided by 104 top performing enterprises in the finance and insurance industry. While the results drawn will be of interest and have some relevance to other top performing enterprises in other industries, it must be noted that the research findings do relate to one specific industry. Although this thesis argues that the research results may reflect the true situation in all the top performing industries and companies, in terms of the essential generic skills for their business success, the researcher does not suggest the findings can be generalised to speak for all organisations in all Australian industries.

Lastly, this research focuses entirely on generic skills and has ignored other factors that influence organisation performance, such as how an organisation is structured, its culture, its strategic intent and its leaderships. Hence, this quantitative research is limited to the criteria as set out in Chapter Two and excluded other contributing factors.

The full details of the limitations of this study are presented in Section 5.7.

1.9 Structure of the thesis

This thesis has adopted a five-chapter structure (Perry 2002) as shown in Figure 1.4. An outline of each of the chapters is then presented.

**Figure 1.4: Outline of the thesis**

![Diagram of thesis structure](source: Developed for this research)
*Chapter One - Introduction*: Chapter One provides an overview of this thesis. The chapter presents the background to the research, a discussion of the research problem and research questions, the objectives of the research, the theoretical framework and hypotheses and the research methodology. This chapter also provides a brief discussion of the justification for the research and the contributions of the research, and the research limitations. The chapter concludes with an outline of the thesis structure and definitions of key terms.

*Chapter Two - Literature review*: Chapter Two develops a theoretical framework and research hypotheses based on an extensive review of various research publications, journal articles, books and other relevant sources in the areas of skills development, employment, education, human resource management and business management. The literature review identifies research gaps and other related issues for the research.

*Chapter Three - Research methodology*: Chapter Three outlines the methodology used to test the hypotheses and the theoretical framework and then justifies the methodology adopted and applied in this study.

*Chapter Four - Data analysis and review of empirical evidence*: Chapter Four presents an analysis of the data collected from the top finance and insurance companies in Australia. The empirical evidence from the analysis and hypothesis testing will also be presented in Chapter Four.

*Chapter Five - Conclusions and implications*: Chapter Five discusses the findings presented in Chapter Four, the conclusions and implications of the research findings and provides directions for further research.

**1.1.0 Definitions of key terms**

*Skills*: according to Wu (2002), skills refer to the ability to perform given tasks or to master various techniques, or more broadly, it can refer to a range of behavioural attributes such as reliability, ability to work without supervision, and stability of employment. Thus, in a strict sense, skills can be defined as the required competence or needs of employment.
Generic skills: the terminology used to refer to generic skills differs from country to country, and generic skills are known by a number of terms including ‘key competencies’, ‘soft skills’, or ‘employability skills’ (Australia); ‘core skills’ or ‘key skills’ (United Kingdom); ‘essential skills’ (New Zealand); ‘necessary skills’, ‘employability skills’ or ‘workplace know-how’ (United States) (Clayton et al. 2003, p. 15). According to NCVER (2003), there are six types of generic skills: basic fundamental skills, people related skills, conceptual/thinking skills, personal skills, skills related to the business world, and skills related to community. The common types of generic skills include interpersonal skills such as communication, teamwork and customer services, and cognitive skills such as problem solving. In this research, generic skills are limited to communication skills; teamwork skills; customer service skills; problem solving skills; learning skills; planning and organising skills; and initiative and enterprise skills.

Moderating variable: is a variable that influences, or moderates, the relation between two other variables and thus produces an interaction effect.

Moderating effect: in quantitative research studies, a moderating effect occurs when the moderator/moderating variable influences the strength of a relationship between an independent variable and a dependent variable (University of Wisconsin 1999).

Communication skills: the ability an individual displays in consistently demonstrating the ability to effectively communicate with colleagues, clients, subordinates, and supervisors in a professional manner; to exchange thoughts, messages, or information, as by speech, visuals, signals, writing, or behaviour; and enables a person to convey information so that it is received and understood (DEST 2006).

Teamwork skills: the ability of an individual to work cooperatively and collaboratively with a group of people in order to achieve a goal and to provide constructive feedback, despite any personal conflict between individuals in the working environment.

Customer service skills: the ability of an individual to provide excellent service and support and build strong relationships with customers. This includes understanding the needs of
internal and external customers, and having excellent knowledge of company products and services (ACCI & BCA 2002; Field & Mawer 1996).

**Problem solving skills:** the ability to demonstrate independence and initiative in identifying complex problems and solving them, both intellectually and analytically (ACCI & BCA 2002; Field & Mawer 1996).

**Learning skills:** the ability an individual to be enthusiastic and flexible about how their learning occurs and to contribute to the learning community in the workplace (ACCI & BCA 2002).

**Planning and organising skills:** the capacity to plan and organise one’s own work activities, including making good use of time and resources, sorting out priorities and monitoring performance (Australian Education Council &The Mayer Committee 1992).

**Initiative and enterprise skills:** the ability of an individual to show initiative in the workplace and achieve outputs and outcomes of their job without close and detailed supervision, and the ability to suggest and initiate changes in the way work is undertaken (ACCI & BCA 2002).

**Employee engagement:** has been defined in many ways by various authors and researchers (Richman 2006; Shaw 2005; Robinson et al. 2004; Kahn 1990). In the academic literature it has been defined as a distinct and unique construct that consists of cognitive, emotional, and behavioural components that are associated with individual role performance (Saks 2006, p. 602), and in general, engagement can be seen as a heightened level of ownership where each employee wants to do whatever they can for the benefit of their internal and external customers, and for the success of the organisation as a whole (Corporate Leadership Council 2004).

**Organisational performance:** comprises the actual output or results of an organisation as measured against its intended outputs such as attaining goals and objectives (Miller & Toulouse 1986; Miller 1988, 1989, 1992; Miller & Dess 1993, 1996). In essence, organisational performance 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.) (Richard et al. 2009, p. 722).

1.1.1 Conclusion

Chapter One has set the foundations of the thesis. It introduced the research topic by providing an overview of the background to the research. It then introduced the research problem, research questions and lead to the discussions of how the research was justified, and the contributions of the research will make in the academic field and a range of business and human resource practices. As the present study has limitations, some of the scopes and constraints for the research were briefly stated in the chapter. The research conceptual model used in the study to investigate the impact of generic skills and employee engagement on organisational performance was introduced, and the research methodology was briefly discussed. This chapter also provided the key terms used in this study, and an outline of the structure of the thesis. Based on these foundations, the thesis will proceed with a detailed description of the research in the next chapters.
Chapter Two—Literature Review

2.1 Introduction

The purpose of Chapter Two is to present a review of the literature related to this study. This chapter develops a conceptual model and research hypotheses based on an extensive review of various research publications, journal articles, books and other relevant sources in the areas of skills development, employment, education, human resource management and business management. The overall structure of Chapter Two is illustrated in Figure 2.1.

Figure 2.1 Overall Structure of Chapter Two

Source: Developed for this research
According to Zikmund (2003), researchers should isolate and identify the fundamental problem, rather than the symptoms associated with the problem. Therefore, the research problem should identify the boundaries of the research without specifying how that research should be done (Leedy 1993). The research problem presented in Section 1.21 was ‘to investigate the relationship between generic skills and organisational performance, and to examine the moderating effects of employee engagement’. There were also four research questions identified in Section 1.22 to guide this literature review and develop a conceptual model to formulate hypotheses for this study:

1. What are the essential generic skills for business enterprise success?
2. How, and to what extent, do generic skills contribute to organisational performance?
3. What is the impact of employee engagement on organisational performance?
4. Does employment engagement influence and strengthen the relationship between generic skills and organisational performance?

Finally, this chapter justifies the research problem and the research questions developed to address it through a review of the literature. As recommended by Miller (1991), evidence that there is a research gap will be established and it will be demonstrated that solving this problem will address a research issue that is worthy of the effort required. The overall structure of the literature review is illustrated in the concept map shown in Figure 2.2.
2.2 Summary of Key Issues and Arguments in the Literature Review

The literature review revealed that empirical evidence on the relationship between generic skills and organisational performance is lacking. Numerous scholars such as Grugulis and Stoyanova (2010), and Weeks (2004) have described that there is a link between exemplary employee generic skills and organisational performance, but the nature of that link is hidden rather than demonstrated by such literature. The researcher conducted an extensive review of relevant UK and US literature, and found that there is substantial evidence of an associations between skills and organisational outcomes such as productivity and innovation (Gambin et al. 2009; Mason et al. 2007; Galindo-Rueda & Haskel 2005; Harris et al. 2005); and a considerable number of case studies, employer surveys and anecdotal evidence (AIM 2012; Constable 2012; Allen Consulting Group 2000 & 2006; Hogarth & Wilson 2005, 2006 & 2007) to confirm skills make a difference to organisational performance. However, none of
the existing studies have proven any statistical relationships between generic skills and organisational performance.

Evidence suggests that both performance and skills are difficult to define, evaluate and measure, and for both, the proxies deployed are not always reasonable signifiers for the skills or performance they are intended to represent (Grugulis & Stoyanova 2010, p.517). Richard et al. (2009) concluded that any study that claims to address organisational performance must include strong theory that addresses two key issues. The first one is the nature of performance – the dimensionality of performance (e.g. establishing which measures are appropriate to the research context); and the second one is about the nature of measurement – the selection and combination of performance measures (e.g. establishing which measures can be usefully combined and the method of doing so). In terms of skills, Green (2009) asserts that the notion of skills is often translated by researchers to mean education and training. As for generic skills, Dickerson and Green (2002) found that they are not easily quantified and are typically defined in slightly different in different situations.

Most of the reviewed UK and US literature has used qualification levels, educational attainments and investment in training as proxies to measure skills. In order words, the key argument in the literature review is that these existing studies have not explored the actual skills utilisations and skills competences and their impact on performance. Rather, what they have discovered is an association between training cost and education or qualifications levels achieved and performance outputs. These associations do not necessarily reflect performance impacts that are attributable to ‘skills’. These findings were more intended to demonstrate the relationships between training/education and organisational outcomes.

The nature of generic skills is complex, as stated by Canning (2007, p.18), the idea that skills (technical and generic) are not easily transferred across contexts may seem, at first glance, to be somewhat counter-intuitive. However, it is difficult to identify even basic replicative knowledge that is ‘transportable’ in this manner. Generic skills appeared to be derived on the basis of perceptions and interpretation rather than anything more tangible or, indeed, any issues to do with the methodology used for elicitation (Sung et al. 2008). As a result, they are hard to measure, quantify and establish statistical relationship with variables which require objective measures, such as financial performance (e.g. return of investment).
This thesis argues that using such proxies can distort the relationship between skills/generic skills and performance by ignoring the actual effects of skills utilisation and the contributions they make to organisational performance. Moreover, these studies have generalised ‘skills’ as a single dimension without specifying any skill categories (e.g. generic skills and technical skills), types of skills (e.g. communication skills and organising skills) or skill elements (e.g. ability to influence the others).

The literature review also shows that there has been far less emphasis on researching the links between generic skills and organisational performance in Australia, than there has been in other countries, since the existing literature in generic skills is mostly concentrated on the integration of the key competencies/employability skills into employment, school education and vocational training (Moy 1999; Field & Mawer 1996). The researcher also found that much of the relevant Australian evidence comes from case studies, research conducted by consulting firms, employer surveys or other anecdotal evidence, for example, AIM (2012) and Allen Consulting Group (2000 & 2006). As a result, the context of generic skills is barely addressed in the Australian management literature, and there is also a lack of empirical research into the relationship between generic skills and organisational performance in Australia.

There is no direct evidence for the moderating effects of employee engagement on the relationship between generic skills and organisational performance. However, the literature review revealed that the concept of ‘employee engagement’ is rapidly gaining popularity in the workplace (Ferguson 2007). Evidence suggests that employee engagement is crucial to organisations’ success, as it can generate the kinds of discretionary behaviours that lead to enhanced performance (Konard 2006). There is also a substantial number of studies conducted by consulting firms and surveys to demonstrate the benefits of employee engagement on organisational performance. The researcher notes that the cause–effect relationship between employee engagement and organisational performance is unclear due to a lack of empirical research. It is suggested that investigating the moderating effects of employee engagement on the relationship between generic skills and organisational performance will generate further understanding of the importance of employee engagement.
A comprehensive review of the literature on generic skills, employee engagement and organisational performance is presented in the following sections.

2.3 Overview of Generic Skills Literature

The first parent discipline in this study is generic skills and this section begins with a discussion of various definitions of generic skills. The second section reviews the key developments of generic skills in Australia, and the importance of generic skills in the 21st century will be addressed in the third section. Finally, the types of generic skills in Australia will be discussed.

2.3.1 Definitions of Generic Skills

In Australia, generic skills are commonly known as employability skills (ACCI & BCA 2002) and were once known by the term ‘key competencies’ (Australian Education Council, Mayer Committee 1992). They are those skills essential for employment and for personal development, fulfilment, community life and active citizenship (Gibb 2004, p. 7). The terminology used to refer to generic skills varies from country to country, and generic skills are known by a number of terms including ‘key competencies’, ‘soft skills’, or ‘employability skills’ (Australia); ‘core skills’ or ‘key skills’ (United Kingdom); ‘essential skills’ (New Zealand); ‘necessary skills’, ‘employability skills’ or ‘workplace know-how’ (United States) (Clayton et al. 2003, p. 15). In some of countries, generic skills are specifically employment-related, while in others, greater emphasis has been placed on the social relevance of generic skills (Kearns 2001). In this thesis, ‘key competencies’, ‘employability skills’, ‘soft skills’ and ‘generic skills’ are used interchangeably.

The Mayer Committee report (1992, p.7) defined key competencies as:

competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. Key competencies are generic in that they apply to work generally rather than being specific to work in particular occupations or
industries. This characteristic means that the key competencies are not only essential for participation in work, but are also essential for effective participation in further education and in adult life more generally.

A comprehensive study of generic ‘employability’ skills in Australia and elsewhere (Gibb 2004) undertaken by the Australian Chamber of Commerce and Industry and the Business Council of Australia (2002, p.3) defined employability skills as:

skills required not only to gain employment, but also to progress within an enterprise so as to achieve one’s potential and contribute successfully to enterprise strategic directions. Employability skills are also sometimes referred to as generic skills, capabilities or key competencies.

Researchers have different views on generic skills and define them in various ways. For example, Curtis and McKenzie (2002) argue that the term ‘employability’ is more attractive as a descriptor than ‘employment-related’ since it conveys a greater sense of an individual’s long-term capacity to build a career and to prosper in a dynamic labour market. They therefore assert that employability implies qualities of resourcefulness, adaptability and flexibility, whereas employment-related suggests an orientation to the current state of the labour market (Curtis & McKenzie 2002, p.6). In addition, Forfás (2007, p. 2) argues that generic skills:

- Are part of a suite of skills which, in combination, optimise an individual’s productivity
- Underpin technical skills
- Draw on personal attributes which affect how effectively skills can be learnt
- Are independent of sector or occupational grouping
- Relate to work processes and the way in which a task is carried out
- Are required by all workers, although the extent to which this is so varies considerably
- Contribute to an individual’s overall employability
- Enhance the capacity to learn, adapt, think independently, cope with tech advancements
• Bring added-value to other, more job-specific skills.

These characteristics of generic skills point to the fact that they are important for both individuals and employers. In other words, they imply that people need to obtain certain pre-defined skills, attributes and values in order for them to become ‘employable’ (Sanguinetti 2004) and business enterprises need to secure and accumulate ‘human capital’ in order to survive in the highly competitive marketplace found in the 21st century. Over the past two decades, business enterprises and employers have played a key role in emphasising the importance of generic skills in Australia and defining them. A review of generic skills developments in Australia is presented in the next section (Section 2.3.2).

2.3.2 Key Developments of Generic Skills in Australia

In the late 1980s and early 1990s many Western countries were working on developing essential sets of skills (Gibb 2004; Levy & Murnane1999; Confederation of British Industry 1998; Conference Board of Canada 1992). This included work done in Australia (Cushnahan 2009). The focus on generic skills in Australia first began in the 1980s and was re-invigorated in the late 1990s and again in 2001–02 due to industry-led initiatives (NCVER 2003a, p. 3). In many respects, Australia is leading the way in terms of the breadth and depth of the research and initiatives that have been embarked on to address generic skills needs, especially since the early 1990s (Curtis 2010). The early initiatives were led by the Karmel Committee (1985), the Finn Committee (1991) and the Mayer Committee (1992) (NCVER 2003a, 2003b & 2011).

Cushnahan (2009, p. 8) notes that the Finn Committee’s use of the term ‘key competencies’ was significant at the time in that it used a single, soon-to-be nationally recognised term to encompass the list of individual skills which were also significantly identified as ‘competencies’ and no longer just traits or skills. Further, the Mayer Committee report of 1992 (Australian Education Council, Mayer Committee 1992) attained a major milestone with the establishment of generic skills and a set of seven key competencies in Australia (Gibb 2004; NCVER 2003a). Some industry/employer-led initiatives were leading to the creation of a new Employability Skills Framework (incorporating the Mayer key competencies) (ACCI & BCA 2002) to replace the Key Competency Framework in 2005.
Table 2.1 presents a historical timeline of key developments of generic skills in Australia.

**Table 2.1- Historical Timeline for Generic Skills Developments in Australia**

<table>
<thead>
<tr>
<th>Early Initiatives</th>
<th>1985 Karmel Committee</th>
</tr>
</thead>
</table>
| **Quality of education in Australia: report of the Review Committee, April 1985** | • Looked at the quality of education in Australia  
• Concluded that students should be prepared for both education and employment by attaining skills |

<table>
<thead>
<tr>
<th>1991 Finn Review</th>
<th>Young people’s participation in post-compulsory education and training: report of the Australian Education Council Review Committee</th>
</tr>
</thead>
</table>
| • Looked at the importance of young people developing key competencies so that they have both specific skills for the job and flexibility  
• Concluded they need a strong grounding in generic skills and transferable skills |

<table>
<thead>
<tr>
<th>1992 Mayer Committee</th>
<th>Key competencies: report of the committee to advise the Australian Education Council and Ministers of Vocational Education, Employment and Training on employment related key competencies for post-compulsory education and training</th>
</tr>
</thead>
</table>
| • Developed a set of seven key competencies:  
  – Collecting, analysing and organising information  
  – Communicating ideas and information  
  – Planning and organising activities  
  – Working with others and in teams  
  – Using mathematical ideas and techniques  
  – Solving problems  
  – Using technology  
• Recommended three performance indicator levels  
• Recommended assessment in multiple contexts  
• Recommended reporting at individual and aggregate levels  
• Key competencies began to be incorporated in competency standards |

<table>
<thead>
<tr>
<th>Industry-led initiatives</th>
<th>1999 Australian Industry Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Training to compete: the training needs of Australian industry: a report to the Australian Industry Group</strong></td>
<td>• Looked at the hard skills and soft skills that need to be developed prior to recruitment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2002 Australian Chamber of Commerce and Industry &amp; Business Council of Australia</th>
<th><strong>Employability skills for the future</strong></th>
</tr>
</thead>
</table>
| • Evaluated progress of key competencies initiatives  
• Conducted an extensive review of other generic skills schemes  
• Conducted two surveys of industry and employer views of required skills  
• Defined employability skills  
• Developed Employability Skills Framework |

<table>
<thead>
<tr>
<th>Joint initiatives</th>
<th>2005 National Quality Council</th>
</tr>
</thead>
</table>
| • Provided endorsement of employability skills being made explicit in training packages  
• Replaced Key Competency Framework with the Employability Skills Framework |

| 2007 National Quality Council | • Endorsed the use of descriptive reporting  
• Employability skills summaries for training package qualifications to be made available on internet |

*Source: Developed for this research as adapted from Allen Consulting Group (2006); National Quality Council (2008); NCVER (2003a)*
2.3.2.1 Mayer Key Competencies

As mentioned in Section 2.3.2, the major contribution on generic skills establishment was made by the Mayer Committee in 1992 with the development of seven key competencies (see Table 2.2) essential to preparing young people for employment (Curtis 2004; NCVER 2003a) and the report published by this committee in 1992, Key competencies: Report of the committee to advise the Australian Education Council and Ministers of Vocational Education, Employment and Training on employment-related key competencies for post compulsory education and training, has become a landmark document, according to Cushnahan (2009, p. 8).

Table 2.2- Mayer Key Competencies

<table>
<thead>
<tr>
<th>Key Competencies</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting, analysing and organising information</td>
<td>The capacity to locate information, sift and sort information in order to select what is required and present it in a useful way; and to evaluate both the information itself and the sources and methods used to obtain it.</td>
</tr>
<tr>
<td>Communicating ideas and information</td>
<td>The capacity to communicate effectively with others using the range of spoken, written, graphic and other non-verbal means of expression.</td>
</tr>
<tr>
<td>Planning and organising activities</td>
<td>The capacity to plan and organise one’s own work activities, including making good use of time and resources, sorting out priorities and monitoring one’s own performance.</td>
</tr>
<tr>
<td>Working with others and in teams</td>
<td>The capacity to interact effectively with other people both on a one to one basis and in groups, including understanding and responding to the needs of a client and working as a member of a team to achieve a shared goal.</td>
</tr>
<tr>
<td>Using mathematical ideas and techniques</td>
<td>The capacity to use mathematical ideas, such as numbers and space, and techniques such as estimation and approximation, for practical purposes.</td>
</tr>
<tr>
<td>Solving problems</td>
<td>The capacity to apply problem solving strategies in purposeful ways, both in situations where the problem and the desired solution are clearly evident and in situations requiring critical thinking and a creative approach to achieve an outcome.</td>
</tr>
<tr>
<td>Using technology</td>
<td>The capacity to apply technology, combining the physical and sensory skills needed to operate equipment with an understanding of scientific and technological principles needed to explore and adapt systems.</td>
</tr>
</tbody>
</table>

Source: Australian Education Council, Mayer Committee (1992, pp.8–9)

The Mayer Key Competencies offered a clear recognition of the importance generic skills and have played a significant role in government policy in this area, most particularly in the vocational and training sector (VET) (Curtis 2004), but contributions made to industry
sectors and employers were far less significant during the early 2000s. Kearns (2001, p.16) argues that while the Mayer Committee regarded its approach to competence as a broad one, it neglects the human factors and the cognitive processes and motivation that influence the acquisition of these competencies. The exclusion of personal attributes, values and attitudes fails to recognise the personal attributes of workers that enable them to be effective in top performing work environments and the relationship of the necessary personal attributes (and values) to the development of generic skills. The failure to link the Mayer Key Competencies to a theory of human development has led to variable outcomes in implementation, as reported by a number of researchers (Hager et al. 1997; Hager 1998; Ryan 1997; Down 1997).

Cornford (2004) notes that what has emerged clearly and unambiguously from the research by Hager et al. (1997) is that employers lack knowledge about what constitute generic skills. Kearns (2001, p.58) concludes: ‘There is evidence from Australia and Britain of a broad spectrum of unresolved issues in integrating generic skills successfully in teaching and learning strategies, both in VET institutions and schooling, and in the workplace.’ While considerable effort was expended in implementing the Mayer key competencies in Australian schools and VET programs during the mid-1990s (NCVER 2003, p.4), attention was diverted from the key competencies to other reforms (later evolved as the Employability Skills Framework – see Section 2.3.2.2). It was mainly due to Australian industry and business enterprises’ recognition of the changing nature of work and skills required to ensure long-term business growth.

### 2.3.2.2 Employability Skills Framework

Building on the Mayer Key Competencies, an Employability Skills Framework was developed by the Australian Chamber of Commerce and Industry, and the Business Council of Australia in 2002 through a comprehensive study of the set of skills that employers seek in their new and existing employees in order for them to work successfully in their organisations. The results of this project reflect the views of employers across all industry sectors and have been developed through research with small and medium-sized as well as large enterprises (ACCI & BCA 2002). The Employability Skills Framework is made up of eight major skill groups (incorporating the Mayer Key Competencies) and a variety of
personal attributes that enterprises argue individuals should have along with the job-specific or relevant skills. Unlike the Mayer Key Competencies, the Employability Skills Framework can be further contextualised and adapted for the needs of particular industries and occupations (Wibrow 2011). More importantly, the research confirmed the importance of personal attributes which were strongly emphasised and highly valued by employers and business enterprises. Table 2.3 presents a list of skills, elements and personal attributes that make up the Employability Skills Framework and compares them with Mayer Key Competencies.

Table 2.3- ACCI/BCA Employability Skills Framework compared with Mayer Key Competencies

<table>
<thead>
<tr>
<th></th>
<th>Employability Skills Framework</th>
<th>Mayer Key Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication skills</td>
<td>Skills that contribute to productive and harmonious relations between employees and customers</td>
<td>Communicating ideas and information</td>
</tr>
<tr>
<td>Teamwork skills</td>
<td>Skills that contribute to productive working relationships and outcomes</td>
<td>Working with others and in teams</td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td>Skills that contribute to productive outcomes</td>
<td>Solving problems</td>
</tr>
<tr>
<td>Initiative and enterprise skills</td>
<td>Skills that contribute to innovative outcomes</td>
<td>Nil</td>
</tr>
<tr>
<td>Planning and organising skills</td>
<td>Skills that contribute to long-term and short-term strategic planning</td>
<td>Collecting, analysing and organising information</td>
</tr>
<tr>
<td>Self-management skills</td>
<td>Skills that contribute to employee satisfaction and growth</td>
<td>Nil</td>
</tr>
<tr>
<td>Learning skills</td>
<td>Skills that contribute to ongoing improvement and expansion in employee and company operations and outcomes</td>
<td>Nil</td>
</tr>
<tr>
<td>Technology skills</td>
<td>Skills that contribute to effective execution of tasks</td>
<td>Using technology</td>
</tr>
<tr>
<td></td>
<td>Using mathematical ideas and techniques</td>
<td>Planning and organising activities</td>
</tr>
</tbody>
</table>

Personal attributes

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Loyalty</td>
<td>Balanced attitude to work and home life</td>
</tr>
<tr>
<td>Commitment</td>
<td>Motivation</td>
</tr>
<tr>
<td>Honesty and integrity</td>
<td>Personal presentation</td>
</tr>
<tr>
<td>Enthusiasm</td>
<td>Common sense</td>
</tr>
<tr>
<td>Reliability</td>
<td>Positive self-esteem</td>
</tr>
<tr>
<td>Adaptability</td>
<td>Sense of humour</td>
</tr>
<tr>
<td>Ability to deal with</td>
<td></td>
</tr>
<tr>
<td>pressure</td>
<td></td>
</tr>
</tbody>
</table>

Source: Developed for this research as adapted from Australian Chamber of Commerce and Industry & Business Council of Australia 2002
In 2005, the National Quality Council ceased using the Key Mayer Competencies and instead began using the Employability Skills Framework after extensive consultation with industry and enterprises across Australia because the key competencies were too generic in their approach and no longer reflected the needs of contemporary workplaces (Wibrow 2011; Curtis 2010; DEST 2006).

2.3.3 The Importance of Generic Skills in the 21st Century

‘Generic skills are identified to be the most critical skills in the current global market especially in this fast moving era of technology.’ (Malaysia Ministry of Higher Education 2006)

There is substantial evidence to indicate that generic skills are regarded as at least as important as – if not more important than – specialised skills for business enterprises as technical or job-specific skills for the 21st century workplace. This is supported by research illustrating why the changing nature of the workplace is creating this shift in the relative importance of generic skill-sets. The emergence of the knowledge-based economy and high performance workplaces have contributed to the importance and increased demand for generic skills (Sung 2013; Grugulis & Stoyanova 2010; Ashton & Sung 2002; Field & Mawer 1996). Generally, business enterprises continue to focus on increased productivity, new markets, products and services, cost reduction, adaptation to globalisation and new technologies. Enterprises’ choices with regard to recruitment and training are largely being driven by these business strategy directions (ACCI & BCA 2002). Thus, they are keen to recruit and retain employees who can demonstrate teamwork, problem solving, the capacity to deal with non-routine processes, the ability to make decisions, the willingness to take responsibility and the ability communicate effectively (OECD 2000).

Sanguinetti (2004, p.2) argues that the emphasis on generic skills is part of the move towards developing ‘human capital’ to meet the demands of the ‘new knowledge economy’. Economic output is becoming more information and knowledge-intensive and thus there needs to be a continual upgrading of the skills and competencies of the workforce. Workers will need the capacity to adapt and continually upgrade through sets of generic skills that can be readily transferred across different settings (Curtis & McKenzie 2002, p. vii).
Generic skills are important in interactive service sectors in the ‘knowledge economy’ (Warhurst et al. 2001), such as finance and insurance. In the past decades, finance and insurance industry in Australia has benefited greatly from new innovations and information technology (Austrade 2011). On the other hand, customer expectations and needs for services have substantially increased, they become better educated, demand new products, reliable and responsive services. These innovations, new technologies, expectations and development of new markets have changed the demand for skills (both technical and generic) in the industry (Philippon & Reshef 2007). Which is, as stated by Frenkel et al. (1999, p.27), the demands of more complex, customised service work that cannot rely on standardisation and direct control are, ‘reducing the demand for lower-skilled jobs and increasing the demand for jobs with higher-level competencies’.

A study by Ashton and Sung (2002) have found substantial resources spent on staff development in the Laïki Bank in Cyprus, and a training programme designed to inculcate employees’ generic skills such as, customer service skills; communication skills; negotiation skills; sales skills, and so on. While these findings hinted the importance of generic skills in finance and insurance industry, Ashton and Sung (2002) have concluded that these activities are highly productive for the banks, but they could be found in many other jobs in any country, and not just in the finance and insurance industry (Green 2009). For example, a good banker would need to have good communication skills (verbal and written) to interact with clients as well as staff effectively, while the skills are important to most of the jobs but in banks, it's a matter of centralised importance as they are operating in an interactive service industry(Yang & Kankanhalli 2012; Philippon & Reshef 2007; Warhurst et al. 2001; Johnson 1995). The analysis of skills needs in UK financial services (FSSC 2007) and the Skills Review of UK Wholesale Financial Services (FSSC 2007) highlighted that within the finance and insurance industry, employers are highly valued generic skills such as, understanding client needs and relationship management skills; interpersonal skills; entrepreneurial skills; managerial skills; and numeracy and maths skills.

The UK Skills at Work Survey in 2007 found that the importance attached to generic skills by employers is increasing. Measures of generic skills have been included in the UK Skills Survey since 1997. The survey findings on generic skills complement declining employment in occupations associated with manual tasks, but also demonstrate changing skill
requirements within occupations. From 1997 to 2001, of the various generic skills, the use of computing skills increased most. The importance of physical skills did not change in that four-year period. The results of the 2006 Skills at Work Survey indicate that checking and horizontal communication skills are used in over 70% of all jobs. Aesthetic and emotional skills are used in 52% and 65% of all jobs respectively, while influence skills, number skills and physical skills are used in between 20% and 30% of all jobs respectively. From 1997 to 2006, the importance placed on all generic skills except physical skills increased (Hogarth & Wilson 2007, p. 61).

Felstead et al. (2007) assert that the need for generic skills such as problem solving, team working and computing is increasing significantly in many occupations. Changes in autonomy (closeness of supervision) and the training and learning times needed to obtain and effectively discharge a job are also projected to increase in importance, as are most other key and generic skills (Hogarth & Wilson 2001). This includes verbal and other types of communication skills, numerical skills, planning skills and IT skills. Manual skills are projected to be of decreasing importance. Verbal and communication skill requirements are expected to increase for most for managers (both within the workplace and when dealing with customers or clients). Numerical skills are projected to increase in importance in administrative, clerical and secretarial occupations (Felstead et al. 2007). The need for planning skills is projected to rise in sales occupations. Hogarth and Wilson (2007) suggest that education courses and training programmes need to reflect the increasing value placed upon such skills by employers.

An extensive literature review conducted by Cairney (2000) also concludes that all industry sectors are becoming more knowledge-intensive, in the very broad sense of that term. Knowledge can also potentially generate productivity and improve quality, customer service, variety, speed and technical skills, as well as innovation in products, processes and organisational structure and behaviour (Wilbrow 2011; Majumdar 2009; Weeks 2004). As companies alter the way their organisations are structured in order to compete more effectively, so too have workers needed to obtain a more complex range of cognitive and intellectual resources (Green 2009 & 1999; Cairney 2000). This involves a change in the types of skills required, with a rise in the importance of generic skills, including the ability of individuals to work more autonomously, be self-managing, work as part of flexible teams,
adapt to change, solve complex problems, think creatively and engage with innovation as a continuous process (Forfás 2007, p.3). Kearns (2001) further suggests the use of training will provide a link to knowledge generation and management and the capacity of enterprises for innovation and workplace change. This literature review focuses entirely on generic skills and has ignored other factors that influence organisation performance, while skills based is important but only it is of vital importance if the organisation is prepared to ‘empower’ its employees. It does not matter how good the employees’ generic skills are, if they are working in an organisation with weak organisation culture.

In summary, it could be argued that generic skills are critical to organisations’ success. As the Australian economy continues to grow, industries and business enterprises are expected to require more skills in order to remain flexible and competitive in a world of exponential change. The following section describes different types of essential generic skills in Australia.

2.3.4 Types of Generic Skills in Australia

‘[A] different mix of key generic skills is required by the conditions of the post-industrial information society.’ (Kearns 2001, p. 42)

The literature suggests that the changing workplace demands a set of new generic skills for enterprises to maintain competitive and sustain business growth. In addition to job-specific technical competencies, there is a requirement for a set of generic skills, which are needed in a cluster of occupations in order for employees to perform competently as knowledge workers. Majumdar (2009) contends that generic skills are independent of sector, underpin technical skills, draw on personal attributes and once combined with job-specific skills, can optimise an individual’s productivity. However, Felstead et al. (2007) found that the prevalence of the use of generic skills varies somewhat between occupations and industries, as well as by gender. For example, women surpass men in the use of emotional skills, and also outdo men, though to a somewhat smaller extent, in the use of horizontal communication skills. Men exhibit more technical know-how and more emphasis on physical, number and problem solving skills than women (Felstead et al. 2007). Hogarth and Wilson (2007) also noted, with respect to cross-industry variation in the use of generic skills, that emotional and
aesthetic skills are put to use most in the service industries while influence, planning and literacy skills are especially prevalent in education. Problem solving skills and technical know-how are most important in construction and manufacturing.

Kearns (2001), in his review of generic skills for the new economy states that there is no consensus in the international literature on the identification of the essential skills, effectively demonstrating that there is no definitive model. This conclusion is confirmed by the papers prepared for the OECD DeSeCo Program (Definition of Selection of Key Competencies) (Rychen & Salganik 2001). A review conducted by NCVER (2003) found that various lists of generic skills have six common elements namely, basic fundamental skills, people related skills, conceptual/thinking skills, personal skills, skills related to business world, and skills related to community.

In the UK, surveys commissioned by the National Skills Task Force (NSTF) pointed to the strong demand from employers for team work, customer handling, communication, problem solving, numeracy, and basic computing skills, particularly where firms sought to move into high quality product areas (NSTF 2000b). Kearns (2001) notes NSTF (2000) also concluded that while employers need specific vocational skills and the ‘soft and transferable employability skills’, they also require a workforce with ‘the capacity for creativity, initiative, and continuing learning and development for the newer and flexible forms of work organisation which will be tomorrow’s norm’ (NSTF 2000, p.13).

Kearns (2001) further set out a framework of possible generic skills based on his preliminary views for bringing generic skills into a developmental structure that would facilitate their ongoing development and interaction (Figure 2.3). The four overlapping rings in his framework recognise 1) the basic cognitive and interpersonal foundations for the key generic skills (e.g. customer service and enterprise skills); 2) the overlap, interaction and clustering between these foundations in various phases of human development (Kearns 2011, p.49); and 3) the meta-competencies, such as autonomy, personal mastery and self-direction, located at the centre of interaction with all the other clusters. Although Kearns’s framework has offered alternative concepts of the key generic skills required by the 21st century, there were no further discussions or development in regards to this potential framework during that time.
In Australia, the most popular framework for generic skills was developed by the Australian Chamber of Commerce and Industry and Business Council of Australia in 2002, known as the Employability Skills Framework as described in Section 2.3.2.2. The development of the framework and choices of key generic skills were based on a set of employability skills believed by employers to be essential to enterprises’ performances. This framework builds on the skills originally identified by the Mayer Committee (Curtis 2004). There are two types of employability skills: ‘generic’ skills and ‘personal’ attributes. The key generic skills identified, and how they contribute to enterprises, are summarised as follows (ACCI & BCA 2002):

1) **Communication** that contributes to productive and harmonious relations between employees and customers:

- Listening and understanding effectively
- Speaking clearly and directly in any situations, effectively communicate verbally and non-verbally
- Negotiating responsively and ability to influence
- Writing to the needs of the audience (e.g. Customers and internal stakeholders) and using numeracy effectively

**Source:** Kearns 2001, p.52
• Have strong ability to exchange opinions/information effectively

2) **Teamwork** that contributes to productive working relationships and outcomes:

• Working with people of different ages, gender, race, religion or political persuasion
• Working as an individual and as a member of a team
• Knowing how to define a role as part of a team
• Applying teamwork skills to a range of situations, e.g. futures planning, crisis problem solving
• Identifying the strengths of team members
• Coaching, mentoring and giving feedback

3) **Problem solving** that contributes to productive outcomes:

• Developing creative, innovative and practical solutions
• Showing independence and initiative in identifying problems and solving them
• Solving problems in teams
• Applying problem-solving strategies across a range of areas
• Resolving customer concerns in relation to complex project issues

4) **Initiative and enterprise** that contribute to innovative outcomes:

• Adapting to new situations (e.g. New merger, acquisitions)
• Developing a strategic, creative, long-term vision
• Being creative and innovative
• Identifying opportunities not obvious to others
• Generating a range of options
• Translating ideas into action
5) **Planning and organising** that contribute to long-term and short-term strategic planning:

- Managing time and priorities – setting timelines, coordinating tasks for self and with others
- Adapting resource allocations to cope with contingencies and solving them verbally
- Establishing clear project goals and deliverables of areas
- Planning the use of resources including time management
- Participating in continuous improvement and planning processes

6) **Self-management** that contributes to employee satisfaction and growth:

- Having a personal vision and goals
- Evaluating and monitoring own performance
- Having knowledge and confidence in own ideas and vision
- Articulating own ideas and vision
- Taking responsibility

7) **Learning** that contributes to ongoing improvement and expansion in employee and company operations and outcomes:

- Applying learning to ‘technical’ issues (e.g. learning about products and ‘people’ issues (e.g. Interpersonal and cultural aspects of work)
- Having enthusiasm for ongoing learning, and being open to new ideas and techniques
- Being willing to learn in any setting – on and off the job; and being prepared to invest time and effort in learning new skills
- Acknowledging the need to learn in order to accommodate change
- Contributing to the learning community at the workplace

8) **Technology** that contributes to effective execution of tasks:

- Having a range of basic IT skills
- Applying IT as a management tool
Using IT to organise data
- Being willing to learn new IT skills;
- Having basic occupational health and safety knowledge to apply technology
- Having the appropriate physical capacity

And, finally **Personal attributes** that contribute to overall essential generic skills, such as:

- Loyalty
- Commitment
- Honesty and integrity
- Enthusiasm
- Reliability
- Ability to deal with pressure
- Motivation

In the last two decades, Australia has expended tremendous efforts in developing generic skills but most of the research has focussed on the integration of the key competencies/employability skills into employment, school education and vocational training (VET sector) rather than business or management research. As noted by Moy (1999, p.38), there has been far less emphasis on researching the links between generic skills and organisational performance. She further concludes that ‘there is merit in researching and promoting a broader, more integrated approach to performance’. However, after more than a decade of research, especially empirical research, on generic skills and their relationships with performance is still lacking in Australia.

While this research aims to investigate the relationship between generic skills and organisational performance, a review of the literature related to the impact of generic skills on organisational performance will be presented in Section 2.6.
2.4 Employee Engagement

The second parent discipline in this study is employee engagement. This section begins with a discussion on various definitions of employee engagement and then reviews employee engagement models and theories and finally, the key drivers of employee engagement are discussed.

2.4.1 Defining Employee Engagement

‘...a positive attitude held by the employee towards the organisation and its values. An engaged employee is aware of business context, and works with colleagues to improve performance within the job for the benefit of the organisation. The organisation must work to nurture, maintain and grow the engagement, which requires a two-way relationship between employer and employee.’ (Robinson et al. 2004, p.9)

In recent years, there has been a great deal of interest among HR professionals and researchers in studying employee engagement. Many scholars have claimed that employee engagement predicts employee outcomes, organisational success and financial performance (Richman 2006; Bates 2004; Baumruk 2004; Harter et al. 2002). However, Robinson et al. (2004) note that there is surprisingly little academic and empirical research on employee engagement, as much of what has been written about employee engagement comes from the practitioner literature and consulting firms.

According to Kular et al. (2008, p.3), one of the first challenges presented by the literature is the lack of a universal definition of employee engagement. Employee engagement had been defined in many ways by various authors and researchers. Saks (2006) states that most often it has been defined as emotional and intellectual commitment to the organisation (Richman 2006; Shaw 2005; Baumruk 2004), or the amount of discretionary effort exhibited by employees in their jobs (Frank et al. 2004). The Corporate Leadership Council (2004, p.5) defines employee engagement as ‘the extent to which employees commit to something or someone in their organisation, how hard they work and how long they stay as a result of that commitment.’ Moreover, engagement can be seen as a heightened level of ownership where each employee wants to do whatever they can for the benefit of their internal and external
customers, and for the success of the organisation as a whole (Corporate Leadership Council 2004).

In the academic literature, a number of definitions have been provided. According to Kahn (1990), employee engagement is different from other employee role constructs such as job involvement (Lawler & Hall 1970; Lodahl & Kejner 1965), commitment to organisations (Mowday et al. 1982), or intrinsic motivation (Deci 1975). He suggests that engagement is a multidimensional construct. People employ and express themselves physically, cognitively, and emotionally when performing their roles. For example, to be emotionally engaged is to form meaningful connections to others and to experience empathy and concern for others’ feelings. In contrast, being cognitively engaged refers to being acutely aware of one’s mission and role in the work environment (Luthans & Peterson 2001). On the other hand, when people are disengaged, they withdraw and defend themselves physically, cognitively, or emotionally during the performance of their roles (Kahn 1990, p.694).

Rothbard (2001) defines engagement as psychological presence but goes further to state that it involves two critical components: attention and absorption. Attention refers to ‘cognitive availability and the amount of time one spends thinking about a role’ while absorption ‘means being engrossed in a role and refers to the intensity of one’s focus on a role’ (Saks 2006, p.601). Schmidt et al. (1993) state that employee engagement is a modernised version of job satisfaction; it integrates the classic constructs of job satisfaction (Smith et al. 1969) and organisational commitment (Meyer & Allen, 1991). However, Robinson et al. (2004) argue that engagement is said to be related to but distinct from other constructs such as organisational commitment, job satisfaction and organisational citizenship behaviour because engagement is not an attitude (Sake 2006); it is the degree to which an individual is attentive and absorbed in the performance of their role. As stated by Robinson et al. (2004, p.8):

engagement contains many of the elements of both commitment and organisational citizenship behaviour (OCB) but is by no means a perfect match with either. In addition, neither commitment nor OCB reflect sufficiently two aspects of engagement- its two way nature, and the extent to which engaged employees are expected to have an element of business awareness.
Robinson et al.’s study (2004) also found that engaged employees feel a strong emotional bond to the organisation that employs them, which results in higher retention levels and productivity levels and lower absenteeism. When reliably measured, positive employee engagement can be causally related or correlated to specific positive business outcomes by workgroup and job type (Scarlett 2010).

In other study, Konrad (2006, p.1) found that employee engagement has a cognitive, an emotional, and a behavioural aspect. The cognitive aspect of employee engagement concerns employees' beliefs about the organisation, its leaders, and working conditions. The emotional aspect concerns how employees feel about each of those three factors and whether they have positive or negative attitudes toward the organisation and its leaders. The behavioural aspect of employee engagement is the value-added component for the organisation and consists of the discretionary effort engaged employees bring to their work in the form of extra time, brainpower and energy devoted to the task and the firm.

However, Kular et al. (2008) argue that the existence of different definitions makes the state of knowledge of employee engagement difficult to determine as each study examines employee engagement under a different protocol. Ferguson (2007) contends that unless employee engagement can be universally defined and measured, it cannot be managed, and nor can we know whether efforts to improve it are working.

In summary, the definitions and meanings of engagement in the practitioner literature often overlap with other constructs – most notably organisational commitment, organisational citizenship behaviour, and job satisfaction, but in the academic literature it has been defined as a distinct and unique construct that consists of cognitive, emotional, and behavioural components that are associated with individual role performance (Saks 2006, p.602).

2.4.2 Employee Engagement: Models and Theory

There has been very little in the way of model or theory development related to employee engagement, due to the limited academic research in this field. Nevertheless, there are two streams of research that provide models of employee engagement (Saks 2006). In Kahn’s qualitative study (1990) on the psychological conditions of personal engagement and
disengagement in an architecture firm, he found that there were three psychological conditions associated with engagement or disengagement at work: meaningfulness, safety, and availability. In other words, workers were more engaged in situations that offered them more meaning and psychological safety, and when they were more psychologically available (Kular et al. 2008).

Another study which found that meaningfulness, safety, and availability were significantly related to engagement is that of May et al. (2004) which empirically tested Kahn’s (1990) model. May et al. (2004) also found that job enrichment and role fit were positive predictors of meaningfulness, that rewarding co-worker and supportive supervisor relations were positive predictors of safety while adherence to co-worker norms and self-consciousness were negative predictors, and that resource availability was a positive predictor of psychological availability while participation in outside activities was a negative predictor (Saks 2006).

Kahn’s (1990) model indicates the psychological conditions that are necessary for engagement. However, it does not fully explain why individuals will respond to these conditions with varying degrees of engagement. Saks (2006, p.603) notes that a stronger theoretical explanation for employee engagement can be found in social exchange theory (SET).

According to Cropanzano and Mitchell (2005), SET argues that obligations are generated through a series of interactions between parties who are in a state of reciprocal interdependence. A basic tenet of SET is that relationships evolve over time into trusting, loyal, and mutual commitments as long as the parties abide by certain ‘rules’ of exchange. For example, when individuals receive economic and socio-emotional resources from their organisation, they feel obliged to respond in kind and repay the organisation by contributing their engagement in return for the resources and benefits provided by their organisation (Saks 2006). This is consistent with Robinson et al.’s (2004) description of engagement as a two-way relationship between the employer and employee. Further, it is also consistent with Kahn’s (1990) definition of engagement that when the organisation fails to provide these resources, individuals are more likely to withdraw and disengage themselves from their roles. Thus, the levels of cognitive, emotional, and physical resources that an individual is prepared
to devote to the performance of their work roles is contingent on the economic and socio-emotional resources received from the organisation (Ferguson 2007; Cropanzano & Mitchell 2005).

**2.4.3 Key Drivers of Employee Engagement**

Konrad (2006) has made the point in her study that employee engagement can be critically important to competitiveness in the contemporary business environment and that the influence of engagement is substantial. Recent research has focused on developing a better understanding of how variables such as quality of work relationships and values of the organisation interact and their link to important work outcomes (Schmidt et al. 2003). According to Tamkin (2005), the performance benefits accrued from increased employee commitment and engagement have been widely demonstrated in the UK literature. These benefits include:

- increased job satisfaction (Vandenberg & Lance 1992)
- increased job performance (Mathieu & Zajac 1990)
- increased job return to shareholders (Walker Information Inc. 2000)
- increased sales (Barber et al. 1999)
- decreased employee turnover (Cohen 1991)
- decreased intention to leave (Balfour & Wechsler 1996)
- decreased intention to search for alternative employers (Cohen 1993) and
- decreased absenteeism (Cohen 1993; Barber et al. 1999).

However, to understand what drives engagement is crucial to improving and managing the engagement levels of employees. There is a range of factors, known as drivers that are thought to increase overall engagement. Numerous authors (Welbourne 2007; Seijts & Crim 2006; Konrad 2006; Stairs 2005) have developed a long list of management practices for generating high involvement and high performance among employees. These range from selecting the right people for the organisation to a commitment to training and skill development, team-based work organisation, job security, and incentive-based pay. In each of these general categories, a variety of specific practices have been developed. For example, incentive-based pay can take the form of a gain-sharing program, performance-contingent
pay to individuals, team-based pay, or employee ownership. Training programs can be developed for current and future skills, technical and interpersonal skills, new hires and experienced employees (Konrad 2006, p.1-2).

A significant research finding regarding engagement drivers was discovered by the Institute of Employment Studies (IES) in the UK in 2003. Research has shown that engagement has clear links to attitudes towards other aspects of working life, and statistical analysis (Table 2.4) shows that the strongest driver of engagement is a sense of feeling valued and involved. This indicator relates to several aspects already identified as relevant to engagement, cited by Tamkin (2005, p.30):

- involvement in decision-making
- the extent to which employees feel able to voice their ideas, and to which managers listen to these views, and value employees’ contribution
- the opportunities employees have to develop their jobs
- the extent to which the organisation is concerned for employees’ health and wellbeing.

Table 2.4: Highly Significant Engagement Relationship

<table>
<thead>
<tr>
<th>Attitude/experience</th>
<th>Correlation coefficient</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling valued and involved</td>
<td>0.588</td>
<td>9,941</td>
</tr>
<tr>
<td>Co-operation</td>
<td>0.515</td>
<td>9,868</td>
</tr>
<tr>
<td>Communication</td>
<td>0.481</td>
<td>9,933</td>
</tr>
<tr>
<td>Training, development and career</td>
<td>0.465</td>
<td>9,943</td>
</tr>
<tr>
<td>Equal opportunities and fair treatment</td>
<td>0.479</td>
<td>9,911</td>
</tr>
<tr>
<td>How the organisation compares as a place to work with two years ago?</td>
<td>0.452</td>
<td>7,267</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>0.410</td>
<td>9,944</td>
</tr>
<tr>
<td>Immediate management</td>
<td>0.401</td>
<td>9,941</td>
</tr>
<tr>
<td>Pay and benefits</td>
<td>0.390</td>
<td>9,904</td>
</tr>
<tr>
<td>Performance and appraisal</td>
<td>0.381</td>
<td>9,923</td>
</tr>
<tr>
<td>Colleagues</td>
<td>0.280</td>
<td>9,834</td>
</tr>
<tr>
<td>Current career intentions</td>
<td>0.257</td>
<td>6,700</td>
</tr>
<tr>
<td>Stress and work pressure</td>
<td>0.155</td>
<td>9,930</td>
</tr>
<tr>
<td>Number of days spent on formal training and development in the last 12 months</td>
<td>0.069</td>
<td>9,459</td>
</tr>
<tr>
<td>Length of service</td>
<td>-0.062</td>
<td>9,744</td>
</tr>
</tbody>
</table>


Further, an engagement model developed by IES (2003), as shown in Figure 2.4, indicates that a focus on increasing individuals’ perceptions of their involvement with, and value to, the organisation will pay dividends in increased engagement levels. Tamkin (2005) argues
that many of the components of feeling valued and involved are what might be termed high performance working practices.

**Figure 2.4: IES’ Engagement Model**

![IES Engagement Model Diagram](image)


In other studies, more engagement drivers have been identified by various studies. Some of the key engagement drivers are:

- **Good quality line management:** A study by the Charted Institute of Personnel and Development (CIPD) (2001) concluded that having good relationships between managers and employees is one of the most important determinants of employee engagement and motivation at work. A good line manager is instrumental in delivering performance appraisals, offering career paths, smoothing the path to training, communicating and demonstrating equality of opportunity (Tamkin 2005; Green *et al.* 1996).

- **Quality of working relationships with colleagues:** According to Baumeister and Leary (1995), emotional attachment to colleagues is another important factor, maintained through frequent, rewarding contact with peers, which promotes feelings of belonging that can bind employees to the organisation.

- **Organisational justice and trust:** According to Kramer (1999), trust in an organisation can promote the acceptance of organisational initiatives. Individuals who are more engaged are likely to be in more trusting and high-quality relationships with
their employers. Therefore, they will be more likely to report more positive attitudes and intentions toward the organisation (Cropanzano & Mitchell 2005). On the other hand, organisations must treat employees fairly and communicate their commitment to employees (McFarlin & Sweeney 1992).

- **Employee perception of job importance:** Maslach *et al.*’s (2001) model stresses the importance of job characteristics for engagement. Employees who are provided with enriched and challenging jobs will feel obliged to respond with higher levels of engagement.

- **Reward and benefits:** Kahn (1990) states that employees will be more likely to engage themselves at work if perceive that the rewards, benefits and recognition for their role performances are large. Similarly, Cohen and Gattiker (1994) found that commitment was more strongly related to rewards than to actual income.

- **Training and career development:** Organisations with high levels of engagement provide employees with opportunities to develop their abilities, learn new skills, acquire new knowledge and realise their potential. The logic behind this is that when companies invest in their people in this way, their people invest in them (Kular *et al.* 2008).

It is important to mention that, engagement can make a difference; employee satisfaction and engagement are related to meaningful business outcomes at a magnitude that is important to many organisations (Seijts & Crim 2006; Harter *et al.* 2002). On the other hand, employee engagement also affects the mindset of people. Engaged employees believe that they can make a difference in the organisations they work for. When people have confidence in the knowledge, skills, and abilities that they and their colleagues possess, is a powerful predictor of behaviour and subsequent performance (Seijts & Crim 2006, p.2). Therefore, employee engagement is crucial to organisations’ success, as it can generate the kinds of discretionary behaviours that lead to enhanced performance (Konard 2006). In section 2.6.3, the impact of employee engagement on organisational performance will be discussed.
2.5 Organisational Performance

The third parent discipline in this study is organisational performance. According to Richard et al. (2009), organisational performance has been used widely as the most important criterion for evaluating organisations and it is one of the most important constructs in management research. However, researchers often pay little attention to what performance is and how it is measured (Richard et al. 2009). There are several challenges researchers must overcome when attempting to measure organisational performance (Chearskul 2010). First, it is apparent that organisational performance is a complex and multidimensional phenomenon, which makes it inherently difficult to obtain accurate measures (Dess & Robinson 1984), especially when what has to be measured keeps changing (Hubbard 2009). It also seems clear that different fields of study will and should use different measures of organisational performance because of the differences in research questions (Hofer 1983). Second, the relationships between variables of interest and performance can be influenced by other measures the organisation uses internally and how they alter managerial decisions and actions (Devinney et al. 2005). Arguably, performance itself is likely to be somewhat firm specific, as the strategic choices a firm makes will dictate which performance measures will reflect the latent performance construct (Steers 1975). As a result, the question of which measures should be used (e.g. subjective vs. objective measures or financial vs. non-financial measures) has remained a major concern to researchers (Devinney et al. 2005).

Richard et al. ’s review (2009) concluded that any study that claims to address organisational performance must include strong theory that addresses two key issues. The first one is about the nature of performance – the dimensionality of performance (e.g. establishing which measures are appropriate to the research context); and the second one is about the nature of measurement – the selection and combination of performance measures (e.g. establishing which measures can be usefully combined and the method of doing so). Thus, the measures selected and measurement approach used will affect research findings and the measurement model selection can materially affect the fit of research models (Aliawadi et al. 2004).
2.5.1 Defining Organisational Performance

Organisational performance has been defined in many ways by various researchers. However, many would agree that it comprises the actual output or results of an organisation as measured against its intended outputs such as goals and objectives (Miller & Toulouse 1986; Miller 1988, 1989 & 1992; Miller & Dess 1993 & 1996). In essence, organisational performance can be conceived in any of three broad areas: performance in activities that support the mission (effectiveness), performance in relation to the resources available (efficiency) and performance in relation to long-term viability or sustainability (ongoing relevance) (Knights & McCabe 1997).

The existing research conducted by Kirby (2005) confirms that there is no universally agreed definition of organisational performance. However, what is evident is that organisational performance was relatively simple to define in terms of the dominant shareholder back in the industrial age (Fontannaz & Oosthuizen 2007). According to Kotter and Heskett (1992) cited in Kirby (2000), defined performance in terms of annual growth in net income, average returns on invested capital, and appreciation in stock price. Other authors, such as Zook (2001) focused on a similar combination of outputs, including organisations which have grown both revenues and profits and produced shareholder returns in excess of the cost of capital.

While the key driver of organisational performance was the access to financial capital in the industrial economy, Fontannaz and Oosthuizen (2007) argue that a financial perspective such as this is no longer valid in the networked economy. As a result, it is now acknowledged that definitions of organisational performance should be based on the satisfaction of a range of stakeholder requirements. This perspective is supported by Kolk et al. (2005) and a broader definition of organisational performance is required to represent the multi-stakeholder perspective, such as the one introduced by Freeman (1984).

Freeman’s perspective (1984), viewed broadly, is that stakeholders include anyone who ‘can affected by the achievement of the organisation’s objectives', and according to Richard et al. (2009, p.723), stakeholders can have different motivations that imply different measurement needs; for example, managers, employees, suppliers, customers, stockholders, governments
and non-governmental organisations would all concentrate on the measures of performance most directly related to their own goals (Fitzgerald & Storbeck 2003; Hillman & Keim 2001). However, Kirby (2005) contends that the key challenge presented by the multi-stakeholder perspective is determining a common unit of analysis for measuring stakeholder satisfaction, across a range of dimensions.

Spreitzer and Quinn (2001) cited in Fontannaz and Oosthuizen (2007, p.11) suggest organisational performance is the synthesis of individual performance throughout the organisation and contend that individual performance is dependent on effectiveness (Drucker 1996), strength (Buckingham 2002) and partnership (Senge 2006). While workers’ skills, knowledge, imagination and intelligence are essential resources for an organisation’s success, Drucker (1996) argues that only effectiveness can convert these resources into results.

Performance is one type of effectiveness indicator, with both advantages and disadvantages (Richard et al. 2009). According to Venkatraman and Ramanujam (1986) it is important to distinguish between organisational performance and the more general construct of organisational effectiveness. As Cameron and Whetten (1983a, p.18) also state:

Organisational effectiveness is a broader construct that captures organisational performance, but with grounding in organisational theory that entertains alternate performance goals.

Furthermore, according to Richard et al. (2009, p.722):

Organisational performance 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 other words, organisational performance is important to scholars across the entire domain of management research, for example, to influence and measure organisational performance and to understand and improve performance (Mia et al. 2011; Richard et al. 2009; March & Sutton 1997; Venkatraman & Ramanujam 1986). In doing so, researchers adopt discipline-
specific measures such as customer satisfaction, productivity, and employment satisfaction to understand the interrelationships between specialist measures. This is essential to understanding the relationships between multiple organisational actions (Richard et al. 2009; Chenhall & Langfield-Smith 2007).

2.5.2 Measurement of Organisational Performance

‘Performance measures should not be made specific to the research question but be sufficiently robust to cover the domain of organisational performance.’ (Richard et al. 2009, p.737)

Many scholars agree that organisational performance is the ultimate dependent variable of interest for researchers concerned with just about any area of management (Richard et al. 2009; March & Sutton 1997; Venkatraman & Ramanujam 1986). For example, marketing, operations, human resources and strategy are all ultimately judged by their contribution to organisational performance (Richard et al. 2009). In terms of measurement, there are three approaches generally used to operationalise organisational performance as a dependent variable (see Figure 2.5). The first is where a single measure is adopted based on the belief that that measure influences performance. The second approach is to adopt several different measures but compare them independently to the same independent variables. The third approach, the most common, is where the researcher aggregates dependent variables, assuming convergent validity based on the correlations between the measures (Richard et al. 2009).

In regards to using several different measures, an early organisational performance model developed by Venkatraman and Ramanujam (1986) goes beyond the traditional shareholder theory (dominated by financial measures) and circumscribes the domain of organisational performance (see Figure 2.5). The model suggests that organisational performance should be measured using both financial indicators (e.g. sales growth, return on investment, earning per share) and non-financial indicators (e.g. market share, product quality, new product introduction). Venkatraman and Ramanujam (1986, p.807) further recommend that researchers should either ‘explicitly test the dimensionality of their conception of business performance’ or use an ‘a priori classification which recognizes the dimensionality issue’.
However, many researchers have not followed the suggestions from Venkatraman and Ramanujam (1986 & 1987) and prefer the narrow domain of organisational performance (e.g. using finance indicators), given that they believe the implementation and measurement of wider aspects of organisational effectiveness are complex and difficult (Richard et al. 2009; Bourne et al. 2000; Schneiderman 1999).

**Figure 2.5 Circumscribing the Domain of Organisational Performance**

![Diagram](image)

*Source: Venkatraman & Ramanujam 1986, p.803*

Ansoff (1965) proposed that the ultimate measure of organisational performance is return on investment. While he argued that this is the aim of the organisation, Ansoff acknowledged that the organisation was constrained by individual stakeholder objectives. As a consequence, the organisation must also have non-economic objectives that lead to maximisation of return on investment as limited by stakeholder constraints on organisational flexibility.

This thesis argues that measurement of organisational performance must take both shareholder and stakeholder perspectives into account and adopt both financial and non-financial measures, as the financial indicators are historic in nature and are not reliable predictors of organisational performance (Mia et al. 2011). Furthermore, Kaplan and Norton (1996a, 2001a) argue that many organisational performance measurements do not include

In the management literature, organisational performance has been studied and operationalised in a number of ways. For example, Guest et al.’s (2003) study of human resource management and corporate performance in the UK measured organisational performance by evaluating labour turnover, sales per employee, and quality of goods and services. Similarly, Delaney and Huselid (1996) investigated the relationship between HR practices and organisational performance using both financial and non-financial performance measures such as sales growth, customer satisfaction, and market share. Likewise, Shrivastava et al. (2006) examined the linkages between total quality management and organisational performance by evaluating five dimensions of organisational performance, such as market shares, customer satisfaction, profit margin, quality performance and labour efficiency. These studies have highlighted the implications of operationalising organisational performance as a mix of financial and non-financial measures.

2.5.2.1 Source of Performance Data

Source of performance data is one of the major research design issues that researchers need to pay close attention to when attempting to measure organisational performance. According to Venkatraman and Ramanujam (1986), performance data can be obtained either from a primary source (e.g. collecting data directly from organisations) or from secondary sources (e.g. collecting data from publicly available records or databases). They developed a scheme for measuring organisational performance with 10 basic approaches – as shown in Figure 2.6, there are four ‘within-cell’ approaches (numbered 1 through 4) and six ‘across-cell’ approaches (labelled A through F). Measurement approaches encompassing more than two cells can be depicted as combinations of these basic approaches and are not treated separately (Venkatraman & Ramanujam 1986, p.804). Venkatraman and Ramanujam (1986) described explicitly the benefits, limitations and key methodological considerations of each approach.
For example, Approaches 1 to 4 have a narrow perspective on business performance, while Approach E covers a broader conceptualisation of business performance and is needed for addressing specific research questions, but data on financial performance may not be forthcoming from primary sources due to reasons of confidentiality and sensitivity.

This study obtains both operational and financial performance data from primary sources (data was collected directly from organisations – Approach D). As a result, the research followed the suggestions from Venkatraman and Ramanujam (1986) that a researcher adopting this approach should (1) choose target respondents based on specific criteria (e.g., positions, functions, etc.); (2) measure performance relative to industry; (3) identify a priori dimensions of performance and empirically test the dimensionality; and (4) use multiple respondents to enable the evaluation of systematic bias and measurement error (Chearskul 2010 p.75).

**Figure 2.6: A Scheme for Measuring Organisational Performance**

![Figure 2.6: A Scheme for Measuring Organisational Performance](source)

*Source: Venkatraman & Ramanujam (1986, p.805)*

**2.5.2.2 Types of Performance Measures**

There are four types of measures identified from the literature: Fully-Objective, Quasi-Objective, Fully-Subjective and Quasi-Subjective.
Fully-objective measures are operationally defined measures such as return on investment (ROI), return on asset (ROA), return on sales (ROS), or market share based on an implicit assumption that these measures represent accurate theoretical concepts of organisational performance and can be applied across industries (Chearskul 2010). Accounting measures (e.g. ROI, ROA and sales growth) and financial market measures (e.g. earnings per share, total shareholder return and market capitalisation) can be obtained from databases such as Compustat and PIMS (Ketokivi & Schroeder 2004), or market intelligence reporting such as that done by the IBISWorld Company and Industry research and Dun and Bradstreet Company Intelligence. These data have been utilised widely in the literature. On the other hand, company performance data can also be obtained through self-report techniques, known as quasi-objective measures (Richard et al. 2009). However, Richard et al.’s (2009) also state that, influential research has often treated these as equivalent to the fully objective measures they reflect.

There are several problems associated with using objective measures in survey research, especially in large-sample empirical work where inferences are made about populations (Ketokivi & Schroeder 2004). Dess and Robinson (1984, p.266) argue that accurate estimates are very difficult to obtain by survey techniques and this represents a major source of measurement error for two key reasons: the confidential nature of the data and variance among participating firms with regard to accounting procedures. In addition, Glueck and Willis’s (1979) study questions the accuracy and reliability of performance data from documentary sources and databases. In a similar vein, Ketokivi and Schroeder (2004) contend that the same objective measure may be defined differently across industries or even within industries. As a result, the aggregation of objective measures can be difficult because of implicit relationships among them, and many organisational performance dimensions cannot be directly observed because they only exist in a cognitive sense (Chearskul 2010, p.76).

Many researchers adopt Quasi-subjective measures in order to overcome the low response rates which are common when asking informants to provide performance data (Ketokivi & Schroeder 2004). This approach is a hybrid of objective and subjective measures and the validity of performance measures is left to the informant’s discretion (Chearskul 2010). In general, the content of the measure is operational defined (e.g. ROI, market share and
growth), but the measurement units are defined perceptually, for example by using a 1-5 scale relative to competition or the industry (Ketokivi & Schroeder 2004).

In contrast *Fully-subjective* is a self-report measure which asks supposedly well-informed respondents about organisational performance and allows their responses to be strongly tailored to the dimensionality of the context of interest. Overall, the validity of the subjective measures depends on the quality of informant’s recollection of events and knowledge of informants (Richard *et al.* 2009). An important aspect of this direct approach is that because these measures are not anchored to any definite object, they are inherently relative (March & Sutton 1997; Richard *et al.* 2009). However, this type of measure may be distorted by psychological biases, leading to highly skewed and unrepresentative outcomes (Richard *et al.* 2009 p.736).

Ketokivi and Schroeder (2004) contend that the accuracy of perceptual measures of performance depends on whether the informants were honest, whether their responses reflect what is or what should be, and whether the informants engage in rhetoric that reflects their managerial position (Walker & Lorsch 1987). In addition, the possibility of different or inconsistent interpretations of measures’ definitions and differences in the interpretations of scale items such as ‘strongly agree’ or ‘above industry average’ are often brought up as potential problems (Chearskul 2010; Ketokivi & Schroeder 2004). Further, cognitive bias can also influence subjective measures, as respondents tend to view themselves positively, construe external criteria in their favour, and rely on causal ambiguity to take credit for positive outcomes (Stajkovic & Sommer 2000 in Richard *et al.* 2009; Campbell & Sedikides 1999; Taylor & Brown 1988).

Many researchers assert that the problems with subjective measures are not as severe as they have been portrayed as being by the others. Winter (2003), Venkatraman and Ramanujam (1987) and Wall *et al.* (2004) argue that respondents to subjective measures are often well-informed participants such as senior executives/senior managers who can be thought of as representatives of the organisation and they often have their views of organisational performance influenced by facts or figures contained in the objective performance measures. Dess and Robinson (2004) found that top management’s subjective evaluation of performance was highly correlated with objective measures, suggesting that researchers may
consider using subjective perceptual measures of return on assets and sales growth under certain conditions.

Brush and Vander Werf (1992) argue that primary information collected from management is preferable to secondary data sources when depth and context are important to the purposes of a study. Richard et al. (2009, p.736) add that the correlation between subjective and objective measures has been shown to be between 0.4 and 0.6, with correlations as high as 0.81 achieved by using more specific subjective constructs. Similarly, Venkatraman and Ramanujam (1987) compared objective Compustat data with the subjective perceptions of senior managers regarding financial performance and found correlations of between 0.44 and 0.51. In addition, there is empirical evidence suggesting that subjective measures consistently display high levels of discriminant validity, moderate convergent validity and strong construct validity (Wall et al. 2004).

In summary, the empirical evidence presented in this section suggests that subjective performance measures could be a viable alternative to measuring organisational outcomes. However, Richard et al. (2009, p.737) urge that researchers should not view the choice of subjective measures as a second-best alternative and should weigh up the trade-offs between the two against the research context to determine which is more favourable under the circumstances.

This section concludes the review of the literature investigating the development of research framework and research design. The specific rationale and approach to measuring organisational performance in the current study is further detailed in Chapter Three, Research Methodology.
2.6 Existing Knowledge about the Relationship between Generic Skills and Organisational Performance, and the Impact of Employee Engagement as a Moderator

This section reviews existing evidence to investigate what is known about the relationship between generic skills and organisational performance, and the moderating effects of employee engagement in order to identify and address the research gaps for this study.

2.6.1 Generic Skills and Organisational Performance: UK and US Literature

As mentioned in Sections 1.1 and 1.2.1, the UK government and UK researchers have led the way in exploring the relationship between skills and performance. A number of researchers (Green 2009; Felstead et al. 2007; Campbell & Giles 2003; Dearden et al. 2001) found that skills make a difference to performance and to the prosperity of members of the workforce. However, the existing empirical evidence on the relationship between skills and performance is rather limited and inconsistent (Lloyd & Payne 2004). Weeks (2004) also contends that if there is a link between exemplary employee generic skills and organisational performance, it is hidden rather than demonstrated by such literature. This section reviews the literature involved in examining the relationships between all skills and organisational performance, and generic skills and organisational performance.

The majority of the UK and US literature has looked at the associations between skills and organisational outcomes such as productivity and innovation (Mason et al. 2007; Galindo-Rueda & Haskel 2005; Haskel et al. 2003; Green et al. 2003). For instance, Green et al. (2003) discovered a strong relationship between different levels of UK workforce skills and the sophistication of products. Mason et al. (1996) found German biscuits were of much higher quality than British ones due to German workers being more qualified in the occupations they are engaged in.

Using matched plant and workforce data, Haskel et al. (2003) found that the top performers in UK manufacturing hired workers with, on average, an extra qualification level compared to the lower performers. Further, they found that higher skill levels supported innovation and
more sophisticated production processes and were associated with the production of higher quality products (Tamkin 2005). In the same study, the findings also showed that both hard skills (typically formal or accredited qualifications) and soft skills (e.g. interpersonal skills) were positively related to total factor productivity (TFP) and the skill gap between the top and bottom performing firms explained some 80% of the productivity gap. Several studies have also confirmed positive relationships between product quality, product specification (e.g. generally more innovative) and the skill levels of the workforce in a number of industries, including clothing, food processing and automotive components, such as Mason (2005); Hogarth and Wilson (2003); and Mason and Wagner (2002).

Mason et al. (2007), in their study on human capital found that educational attainment plays an important and significant role in determining the level of productivity. Using the Employment Prospects in the Knowledge Economy (EPKE) and the International Sector Productivity (ISP) dataset, they estimated that a 1% increase in educational attainment in the UK leads to an increase of approximately 0.09 % in productivity. However, they found little evidence to support the idea that growth in human capital has a short-term impact on productivity growth (Gambin et al. 2009).

A series of ‘well-known’ matched plant studies by the National Institute for Economic and Social Research (NIESR) also found that, on average, British firms are less productive than their European counterparts in the manufacturing sector. The study concluded that lower skills productivity levels in the UK had a direct and negative effect on labour productivity and the types of machinery chosen, the ways in which machinery was modified in line with particular needs, the smoothness of machinery performance and the introduction of new technology (Tamkin 2005).

Harris et al. (2005) combined Employers’ Skills Survey data with data from the Annual Respondents Database to examine the impact of skills on plant level productivity. They found that innovative plants were on average 5% more productive as a result of having a more qualified workforce. However, they argue that employing people with higher qualifications does not inevitably lead to higher productivity. Galindo-Rueda and Haskel (2005) have also looked at the impact of skills on firm performance and compare this to the impact these skills have on wages. They found that increased levels of workplace education attainment are
associated with improved firm-level productivity, and also, higher skills were found to be correlated with higher wages, suggesting that employers must make some gains from higher skills in order to be willing to pay higher wages in the first place (Gambin et al. 2009).

In the US, Lynch and Black (1995) found an extra year of education raised productivity by between 4.9% and 8.5% in the manufacturing industry and by between 5.9% and 12.7% in the service industry (Tamkin 2005, p.7). Another US study, Bates (1990) also asserted that higher qualification levels were related to improved access to finance and increased probabilities of business survival.

Many of the studies that relate skills to productivity and innovation are based on manufacturing data. Gambin et al. (2009, p.14) argue that this limits the generality of findings and prevents conclusions from being transferred to most other sectors or groups of sectors. However, these studies are still useful and provide some invaluable insights. There is also a substantial number of employer surveys and case studies (e.g. UK Employer Skills Survey 2011 & 2010) which confirm the importance of skills for business performance. Hogarth and Wilson (2007), report that a variety of different measures of organisational performance were considered in order to prove that a causal relationship exists between skills/generic skills and performance, such as sales growth, profit, market shares. Furthermore, various measures of the stock of skills and the extent of skill deficiencies all found that skills have an impact on performance (Constable 2012; Hogarth & Wilson 2001). However, none of these studies has proven any statistical relationship between generic skills and organisational performance.

2.6.1.1 Investment in Training and Organisational Performance

Grugulis and Stoyanova (2010) assert that some studies do attempt to explore the link between skills and performance a little more closely, and the most common proxy deployed is training, since training is designed to equip individuals with the knowledge and skills needed for their present job (Fitzgerald 1992); to create competitive advantages for an organisation (Salas & Cannon-Bowers 2001); and to improve employee skills, knowledge and firm performance (Thang 2009). As a result, there is substantial evidence over the past
two decades showing that investment in training is associated with better financial performance and non-financial performance.

A number of researchers (Zwick 2006; Faems et al. 2005; Albaladejo & Romijin 2001) have tried to estimate the impact of training on productivity/innovation, whereas other researchers have examined the influence of training on financial performance indicators such as ROI, ROA, ROE, or market shares (Bernthal & Wellins 2006; Paul & Anantharaman 2003; Huang 2000). For example, Albaladejo and Romijin (2001) found that higher training expenditure per employee was associated with higher technological complexity and originality. Bernthal and Wellins (2006) estimated the impact of training on both ROA and ROE indicators and found that training has a positive and significant effect on ROI. Some studies have examined the impact of training on non-financial performance indicators such as turnover, quality, absenteeism, and customer satisfaction. For example, Bassi and Van Buren (1998) demonstrated that training led to an increase in sales, quality, and customer satisfaction. Ghebregiorgis and Karsten (2007) and Krueger and Rouse (1998) demonstrated that training has a strong effect on absenteeism rate reduction. Also, Katou and Budhwar (2007) found that training has a positive effect on quality.

These studies indicate investment in training is associated with increases in performance and higher returns. However, Grugulis and Stoyanova (2010) argue that the term training covers a wide range of practices and is of limited value as a proxy for skills.

2.6.1.2 Key Arguments Regarding the Proxies for Skills

Tamkin (2005) argues that when looking at the evidence linking skills to organisational outcomes, scholars are in fact nearly always looking at evidence which uses qualifications or educational attainment as proxies for skills because it is very difficult to measure or monitor skills per se. The notion of skills is often translated by researchers to mean education and training (Green 2009). Qualifications and education indicators do not necessarily reflect the skills that a person has and uses in their work. Such indicators may reflect more about the personal characteristics of an individual rather than their skills, and in some cases, qualifications are merely formal certifications rather than true reflections of a person’s actual set of skills (Gambin et al. 2009). It is also difficult to agree that training is a good indicator
of skill levels, usage or propensity to enhance performance, nor is training necessarily about building skills (Grugulis & Stoyanova 2010, p.517).

Generic skills, conceptualised within its complex framework and nature are not easily measured. Stated by Dickerson and Green (2002), and the study of ‘The market value of generic skills’ by Green (1999), those skills are typically defined in slightly different ways from case to case, and they are hard to quantify, due to the complexity of its terms and concepts. As with the Sung et al. (2008) literature, generic skills appeared to be derived on the basis of perceptions and interpretation rather than anything more tangible or, indeed, any issues to do with the methodology used for elicitation. Therefore, designing appropriate proxies to measure generic skills remain a key challenge for quantitative researchers. It could be the reason for the scarcity of existing literature, in particular, empirical research on the relationship between generic skills and organisation performance (e.g. financial performance).

Most of the studies reviewed above deployed qualification levels, educational attainments and investment in training as proxies to measure skills. In order words, the key argument for this is that these studies have not explored the actual skills utilisations/competences and their impact on performance. Rather, what they discovered were the associations between the money spent on training, or the qualifications levels achieved, and performance outputs. These results do not necessarily reflect that performance impacts are attributable to ‘skills’. These findings were more likely to demonstrate the associations between the money spent on training/educational attainment/qualifications levels achieved and performance outcomes. In addition, Grugulis and Stoyanova (2010, p.516) argue that these assumptions may fit the practicalities of research design, especially empirical research, but is not particularly realistic.

This thesis argues that using such proxies can distort the relationship between skills/generic skills and performance by ignoring the actual effects of skills utilisation and the contribution they make to organisational performance. Moreover, these studies have generalised ‘skills’ as a single dimension without specifying any skill categories (e.g. generic skills and technical skills), types of skills (e.g. communication skills and organising skills) and the skill elements (e.g. ability to influence the others) underneath them.
2.6.1.3 Skills Gaps: how are these related to this research?

Skills gaps appear to be able to provide some compelling evidence of the impact of generic skills on organisational performance. According to Hogarth and Wilson (2007), skills gaps refer to the extent to which employers perceive their employees’ current skills as insufficient to meet current business objectives. Skills gaps typically occur due to a lack of or shortfall in generic skills or/and technical skills (Constable 2012). Sutherland (2010) argues that the effects of skills gaps, in the short run, could entail less than optimal working which may result in shortfalls in product/service quantity and quality. In the longer run, they may constrain the introduction of new products/services and new working practices by which these products/services are produced and delivered.

Some empirical studies, such as McGuinness and Bennett (2006 & 2009); and McGuinness and Bonner (2002) have tested the impact of skills gaps on productivity-related variables but no significant relationships were found. Hogarth and Wilson (2007) assert that organisational performance across a range of indicators is severely constrained as a consequence of skills gaps. In the last decade, more descriptive evidence such as a series of Northern Ireland sectoral studies (Erini 2005; NIERC 2000; 2001 & 2002;) have reported that skills gaps substantially have hampered organisational performance on several fronts (CEDEFOP 2010). The UK national employer survey in 2011 also found that over a quarter of surveyed employers reported that skills gaps increased operating costs, and resulted in difficulties in meeting quality standards and introducing new products. More importantly, employers perceived internal skills gaps in terms of generic skills shortfalls, especially in communication, problem-solving, reasoning, customer handling and team-working skills.

In another study, Hogarth and Wilson (2007) also found that employers continue to place considerable emphasis upon generic skills, rather than on formal qualifications and they often stress the importance of verbal and communication skills for managers, numerical skills for clerical and secretarial occupations and customer handling skills for sales occupations as those specific generic skills are significantly related to performance. In summary, these findings provide further evidence of an association between generic skills and organisational performance.
2.6.1.4 Other Indirect Evidence

According to Grugulis and Stoyanova (2010, p.521), the prescriptive literature leads the way on claiming links between generic skills and firm performance. An example is Korczynski’s study (2001) of a training course in a call centre where customer service representatives were told that improving customer skills would result a ‘wining’ situation for them, the customer and the firm. Another study, by Mittal and Lassar (1998), suggest that interpersonal skills have positive impacts on customer satisfaction/loyalty and can eventually influence a company’s performance. Similarly, other studies have identified interpersonal skills as one of the most influential factors for products and services quality; the reliability of the company; employee and customer satisfaction; and customer service orientation (Guenzi & Pelloni 2004; Algae et al. 2002; Kay & Russette 2000; Lewis & Entwistle 1990). Their argument is that it is people who make the difference and enable exemplary service, which results in satisfied customers and repeat business.

Other studies have also provided indirect evidence of the relationship between generic skills and organisational performance. For example, in their study of modular manufacturing, Appelbaum et al. (2000) contend that soft and social skills were keys to effective production. Green et al. (2007) suggest that pay is earned for putting computers to use in the workplace effectively rather than simply working with computers, as they have found clear evidence that effective computer use was combined with high-level ‘influence skills’.

Most recently, in their literature review on exploring the links between skills and productivity, Gamin et al. (2009) suggest that the effects of ‘soft’ skills such as academic skills, research skills and creativity on productivity are mediated through innovation and entrepreneurship. However, they did not provide any empirical evidence to support this suggestion. They also claimed that management and leadership skills are perhaps the most important skills for innovation performance. Further, they assert that innovation in services tends to be less reliant on technical skills than innovation in manufacturing, as enhancing services or indeed providing these through alternative delivery channels such as by phone or internet often requires ‘soft skills’ such as oral communication, customer handling, problem solving and teamwork. These skills are applied through ‘emotional labour’ and are
increasingly important for businesses seeking to compete on higher quality of service, rather than on price (Gambin et al. 2009, p.98).

In social science and psychological literature, there is some indirect evidence to demonstrate the association between cognitive skills and performance. For example, Morgan and Strong (2003) found a significant relationship between cognitive abilities and strategic orientation; and Bergeron et al. (2004) have found the strategic alignment between cognitive skills, IT, strategy, and structure impacts on performance. Delmar (1996) also found an association between entrepreneurial behaviour, cognitive abilities and business performance. The impact of cognitive skills on customer satisfaction was identified by Bagozzi in 1980, through a marketing study of examining the antecedents and simultaneity of performance and satisfaction.

In summary, these studies provided further understanding of the influence of specific generic skills on some indirect business outcomes. However, there seems to be no evidence of the advantages offered by generic skills in terms of financial performance.

2.6.2 Australian Literature

Compared to the UK and the US, Australia has far produced far fewer studies researching the relationship between generic skills and organisational performance. Most generic skills research has focused on employment, school education and vocational training environment, which have limited relevance to the research problem of this study. Most Australian literature related to this research uses case studies, consulting firm research and employer surveys. As a result, there are virtually no empirical studies or data that could be used as reference points for this section.

A number of Australian scholars did attempt to explore the generic skills and organisational performance relationship (Curtin et al. 2011; Kearns 2001; Moy 1999; Field & Mawer 1996). Recently, in their review on skills and innovation, Curtin et al. (2011) draw on two studies to consider the links between skills and their impact on the innovations introduced by firms, and assess the impact of innovation on performance. Based on longitudinal data from the Australian Bureau of Statistics on the co-occurrence of skills, innovation and organisational
performance, they further argue for the notion that firms assemble portfolios of skills that support the development of their higher-order innovation-related capabilities. However, they found that these innovation-related capabilities and activities have a complex and nuanced relationship with organisational financial performance.

In their case study research of the generic skills of high-performance workplaces, Field and Mawer (1996) developed their skill requirement model (Figure 2.7) on the basis of research involving 15 ‘high performance’ enterprises in Australia. However, the term of ‘high performance’ in the study was somehow unclear, given that there were no evidence, methodology or measure to indicate these organisations were ‘high performance’. According to Moy (1999, p.3), validation (or customisation) of this model, in a range of enterprises, is recommended as a strategy for increasing the knowledge of the role of generic skills on organisational performance. Field and Mawer (1996) canvassed possible generic skills not included in Mayer’s key competencies and identified a number of items such as making decisions, adding value and improving own performance. However they found that extending the list caused difficulties due to a high degree of overlap with the existing items (Field & Mawer 1996, p.21).

Field and Mawer (1996) suggest that generic skills cannot be considered in isolation from other factors that contribute to individual, team and organisational performance. In their model, as shown in Figure 2.7, they advocate a broader and more holistic model in which effective employees require the key competencies in combination with a broad range of enterprise goals and characteristics such as empowerment, quality, flexibility and commitment. The model includes the following characteristics (Field & Mower 1996, p.3):

- routine technical skills;
- learning competencies, to adapt to new circumstances and facilitate the learning of others;
- empowerment, or competence to act independently to achieve individual, team or organisational goals (which include being proactive) and
- intellectual and attitudinal core, which includes an intellectual dimension (knowledge, thinking and concepts) and an attitudinal dimension (values, beliefs and aspirations).
Although Field and Mawer’s model addressed the generic skills required by high performance enterprises, the effects of generic skills on organisational performance have not been statistically tested. Similar to the research conducted by Marett and Hoggard (1996) while Field and Mawer’s case study research only examined organisational perceptions of the value of key competencies during the late 90s.

In her literature review, Moy (1999) demonstrates industry perceptions of the value of key competencies and provides examples of approaches used to integrate them into the activities of training providers and enterprises. She states that ‘while generic skills are promoted as enhancing the workplace performance of individuals, work teams and consequently enterprises, there has been far less emphasis on researching the links between generic skills and workplace performance’ (Moy 1999, p.3). She argues that case studies and anecdotal evidence have provided the primary sources of evidence for linking the development and application of generic skills with improved workplace performance. However, empirical research on the importance of specific generic competencies and their relationship with performance is lacking. She asserts that this research gap should be addressed and that there
is merit in researching and promoting a broader and more integrated approach to workplace performance, such as Field and Mawer’s (1996) model of generic skills required in high performing workplaces. Disappointingly, after almost 15 years, empirical research in this area is still lacking.

Kearns’ (2001) review of research on generic skills for the new economy demonstrates that there is both direct and indirect evidence of the impact of generic skills on business performance. He contends that while studies of the effect of training on economic outcomes usually does not distinguish generic skills from other types of skills, a significant indicator resides in the growing demand of employers for generic skills. Research findings such as OECD (1999) and ILO (1998) are important in raising the question of the role of generic skills in assisting workers to acquire more complex and higher level skills, but the impacts cited above in this paragraph did not reflect any effects on organisational outcomes, financial performance, or non-financial performance, such as sales growth, profit, customer satisfaction and productivity.

Another influential piece of case study research examining employer perceptions of the requirements for generic skills in the 21st century was conducted by the Australian Chamber of Commerce and Industry (ACCI) and the Business Council of Australia (BCA) in 2002. As mentioned in Section 2.2, the current Employability Skills Framework was developed based on the outcomes of this research, with the set of generic skills that employers seek in their employees and which contribute to their organisation outcomes. Arguably, this is seem to be another employer wish list of the generic skills, and there has been little attempt to link any of these skills to actual organisational performance.

Studies conducted by consulting firms/employer surveys include the Allen Consulting Group Training to Compete Survey in 2000 which surveyed 350 companies in Australia. The study found that many Australian companies see a strong relationship between the knowledge and skills of their people and competitive business performance. For example, 81% of the surveyed best performing companies see a strong link between their training and competitiveness and in turn, many (61%) see that this will flow through to positive investor decisions (Allen Consulting Group 2000, p.25). Moreover, an important finding of the study is that key generic skills, especially those related to dealing with clients and taking greater
personal responsibility for quality output and services such as interpersonal skills (e.g. communication, team working, customer focus etc.) are increasingly important for companies dealing with change. Further, surveyed companies also linked management skills and interpersonal skills to organisational success. The study shows that companies see themselves as needing higher level skills founded on solid generic skills to deal with a competitive business climate. However, the causality in the relationship between generic skills and organisational performance was unclear and it was not statistically proven in the Allen Consulting Group study (2000).

More recent studies such as those conducted by the Allen Consulting Group (2006), Australian Industry Group and Deloitte (2008) and the Australian Institute of Management (AIM) (2012) have all attempted to establish linkages between generic skills and organisational outcomes (e.g. innovation, productivity and industry competitiveness). The Allen Consulting Group (2006) study found that employers agree that generic skills contribute to their organisation’s success but they are having trouble accessing the right skills, such as solid basic numeracy and literacy skills, to the higher level generic skills, such as willingness to learn, good communication, teamwork skills and problem solving skills. Skills for Innovation CEO Survey (AIG & Deloitte 2008) identified that generic skills are on the radar of Australian business as a key driver of competitiveness and innovation. The study shows the skill sets required for innovation and industry competitiveness incorporate are: problem-solving; technical skills; and management skills. The study found that problem solving is rated as the most important generic skills, followed by communication; adapting to change; and teamwork. Whilst problem solving skills are regarded as the most important for innovation, communication skills are considered to be the generic skills most lacking in organisations. The study suggests that such skills gaps are restricting the innovative ability of Australian firms and this places the future competitiveness of many companies at risk.

Most recently, a study conducted by the Australia Institute of Management (AIM) in 2012, which surveyed 1,700 business leaders and found an overwhelming 77% of the respondents, now report that their organisations have a gap in their workforce skills. The study estimated that the negative impact of skills gaps on organisational performance, in general creates more stress on employees; lower staff morale; the loss of some high performing employees; a reduction in customer service standards; an impact on profit/performance goals/strategic
planning and a loss of market share to competitors. The study also found that companies were experiencing skills gaps with the majority of lacking leadership skills (45%); followed by process and project management skills (39%); communication/interpersonal skills (34%); and managerial skills (18%).

As noted at the beginning of this section, most of the Australian evidence reviewed in this chapter is from consulting firm studies or employer surveys (AIM 2012, Australian Industry Group and Deloitte 2008, and Allen Consulting Group 2000 & 2006). While such findings are useful for an initial conceptualisation of the impact of generic skills on organisational performance, organisations driven by the bottom line require more rigorous empirical evidence to translate into practices that solve organisational problems.

2.6.2 Generic Skills and Employee Engagement: is there any connection?

There is no direct evidence for an association between generic skills and employee engagement. However, based on Kahn (1990) it could be argued that the utilisations/effects of generic skills will be reduced if the employees are disengaged, withhold their skills and defend themselves physically, cognitively, or emotionally during role performance. Recently, a publication from Skills Australia (2010) highlighted the importance of skills use on employee engagement. The paper suggests that employee satisfaction levels and engagement increases when enterprises make better use of their employees’ skills, and this in turn contributes to increased productivity and higher retention rates. It is against this background/gap that this thesis is trying to confirm Kahn’s (1990) assertion.

2.6.3 Employee Engagement and Organisational Performance

Employee engagement has been studied in relation to organisational performance. Some studies dealing with the relationship between employee engagement and organisational performance have already been mentioned in Section 2.4. All of them are in agreement that employee engagement and organisational performance are related (Walker Information Inc. 2000; Barber et al. 1999; Balfour & Wechsler 1996). However, empirical research into this relationship is very limited, especially in the Australian context.
Saks (2006, p.606) notes that the driving force behind the popularity of employee engagement is that it has positive consequences for organisations. A meta-analysis conducted by Harter et al. (2002) confirms there is a general belief that there is a connection between employee engagement and business results and they concluded that: ‘employee satisfaction and engagement are related to meaningful business outcomes at a magnitude that is important to many organisations’ (2002, p.272). On the other hand, Khan (1992) proposed that high levels of engagement lead to both positive outcomes for individuals (e.g. quality of people’s work and their own experiences of doing that work), as well as positive organisational-level outcomes (e.g. the growth and productivity of organisations). As a result, there is reason to expect employee engagement is related to individuals’ attitudes, intentions and behaviours (Kular et al. 2008).

Employee engagement has been shown to have a statistical relationship with productivity, profitability, employee retention, safety, and customer satisfaction (Coffman & Gonzalez-Molina 2002; Buckingham & Coffman 1999). However, similar relationships have not been shown for most traditional organisational constructs such as job satisfaction (Fisher & Locke 1992). Harter, Schmidt and Hayes (2002), in a study of 36 organisations in the public and private sectors, which examined the relationship between employee satisfaction and business unit outcomes by using engagement as an intervening variable. They found that both employee satisfaction and engagement are related to objective measureable business outcomes. The initial findings in this study indicated that employee engagement appears to have a positive impact on customer satisfaction, customer loyalty ratings and financial outcomes, and a negative relationship with employee turnover.

The research firm, The Gallup Organisation (2004) found critical links between employee engagement, customer loyalty, business growth and profitability by utilising the Q12 instrument (as shown in Table 2.5) to measure employee engagement levels. Gallup compared the scores of these variables among a sample of stores scoring in the top 25% on employee engagement and customer loyalty with those in the bottom 25%. Stores in the bottom 25% significantly under-performed across three productivity measures: sales, customer complaints and turnover.
Table 2.5 - Gallup Q12 indicators to assess employee engagement

<table>
<thead>
<tr>
<th>Indicator</th>
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<tbody>
<tr>
<td>1. Do you know what is expected of you at work?</td>
</tr>
<tr>
<td>2. Do you have the materials and equipment to do your work right?</td>
</tr>
<tr>
<td>3. At work, do you have the opportunity to do what you do best every day?</td>
</tr>
<tr>
<td>4. In the last seven days, have you received recognition or praise for doing good work?</td>
</tr>
<tr>
<td>5. Does your supervisor, or someone at work, seem to care about you as a person?</td>
</tr>
<tr>
<td>6. Is there someone at work who encourages your development?</td>
</tr>
<tr>
<td>7. At work, do your opinions seem to count?</td>
</tr>
<tr>
<td>8. Does the mission/purpose of your company make you feel your job is important?</td>
</tr>
<tr>
<td>9. Are your associates (fellow employees) committed to doing quality work?</td>
</tr>
<tr>
<td>10. Do you have a best friend at work?</td>
</tr>
<tr>
<td>11. In the last six months, has someone at work talked to you about your progress?</td>
</tr>
<tr>
<td>12. In the last year, have you had opportunities to learn and grow?</td>
</tr>
</tbody>
</table>


In addition, Ott (2007) cites the Gallup research, which found that higher workplace engagement predicts higher earnings per share (EPS) among publicly-traded businesses. When compared with industry competitors at the company level, organisations with more than four engaged employees for every one actively disengaged experienced 2.6 times more growth in EPS than did organisations with a ratio of slightly less than one engaged worker for every one actively disengaged employee. The findings can be considered as reliable as the variability in different industries was controlled by comparing each company to its competitors, and the patterns across time for EPS were explored due to a ‘bouncing’ increase or decrease which is common in EPS. This research into EPS provides a degree of proof that employee engagement correlates to crucial business outcomes. Towers Perrin’s research (2003) also showed that companies with engagement levels above their industry sector’s average outperformed their peer group, on aggregate, by 17% in terms of operating margin.

A study conducted by the Corporate Leadership Council (2004), emphasises the link between engagement and business success and its direct impact on employee performance and retention. Organisations that have a highly engaged workforce were found to have almost 10 times as many committed, high-effort workers as organisations with workforces with low levels of engagement. Those employees who are most committed perform 20% better and are 87% less likely to leave the organisation. This indicates the significance of engagement to
organisational performance. The key findings of this study also point to the manager as the most important enabler of employee commitment to the organisation, job and work teams.

Another research firm, The International Survey Research (ISR) also cites numerous similar examples of increased profit after companies increased employee engagement. They examined the relationship between different levels of employee engagement and corporate financial performance, measured by changes in operating margins and changes in net profit margins. Comparing high-engagement to low-engagement companies over a three-year period, the financial differences were substantial (ISR 2005). Ferguson (2007) also cites ISR has having found convincing evidence that, organisations can only reach their full potential by emotionally engaging employees and customers.

There are other anecdotal studies which point to a bottom line impact on sales, customer satisfaction, shareholder return, and absenteeism (Stairs 2005). For example, IES’s research in the UK retail sector showed conclusively that employee engagement and commitment had a direct impact on sales (Barber et al. 1999). This direct link was not expected at the start of the research. The research also found that commitment influenced sales through improved customer loyalty and improved employee attendance. Consequently, as engagement increased, sales went up; in addition, employee absenteeism decreased, customer satisfaction increased and customer spending intention increased, causing sales go up even more (Tamkin 2005; Barber et al. 1999).

In summary, this section of the literature review provided evidence of the existing knowledge between employee engagement and organisational performance. Currently, there is a very limited number of studies on employee engagement, especially academic research rather than practitioner and consulting firm studies. However, based on the considerable amount of anecdotal evidence, it is fair to conclude that employee engagement makes a difference to organisational outcomes. Nonetheless, it is arguable whether the cause and effect relationship between employee engagement and organisational performance is clear, due to the lack of empirical research. In addition, there are no studies conducted which treat employee engagement as a moderator of the relationship between generic skills and organisational performance.
2.6.4 Generic skills, employee engagement and Organisational Performance

Some scholars argue that ‘bundling’ skills with other human resource practices can intensify their impact and makes it more likely that they will contribute to good performance (Grugulis & Stoyanova 2010; Tamkin 2005; Field & Mawer 1996). For example, according to Tamkin (2005), skills and development are seen to produce individual and organisational outcomes, and the broader HR practices and enhanced employee commitment give rise to improved organisational performance. On the other hand, Field and Mawer (1996) indicate that improved work performance and productivity usually result from the integration, or ‘bundling’ of a number of complementary HR practices to enhance employees’ commitment in order to achieve organisational goals. Grugulis and Stoyanova (2010, p.525) assert that the importance of the impact of skills on performance will not be sustained without HR practices such as training and performance-related pay. They add that even when positive links with performance are found, they tend to reveal more about the link between performance and HR practices as a whole rather than skills, suggesting that skills themselves become more meaningful when grounded in HRM.

In summary, the studies reviewed in this section provide indirect evidence relevant to this research, as this study focuses on generic skills and the important part they play in meeting skills needs in the 21st century. In addition, this research also focuses on the moderating effects of employee engagement on the generic skills and organisational performance relationship, instead of common constructs such as organisational commitment or job satisfaction. As a result, the proposed relationships examined in this research have not been captured in existing studies.

2.7 Confirmation of Research Gaps

From the review that has been presented in this chapter it can be seen that empirical research on the relationship between generic skills and organisational performance is lacking. An extensive review of the relevant UK and US literature reveals that there is considerable evidence of an association between skills and organisational outcomes such as productivity and innovation (Gambin et al. 2009; Mason et al. 2007; Galindo-Rueda & Haskel 2005;
Haskel et al. 2003). However, these studies researched skills as a whole without specifying any skills categories, such as technical or generic skills. The proxies they used to measure ‘skills’ include investment in training, educational attainments and qualifications levels, and the researcher questions whether these studies were actually researching the performance impacts attributable to ‘skills’, or the associations between training cost/educational attainment/qualifications levels achieved and performance outputs. In addition, most UK and US studies seem to be only interested in exploring the links between skills and productivity or innovation, rather than the broader organisational performance dimensions, such as financial performance and non-financial performance. From this review it can be concluded that the literature does not provide sufficient evidence to demonstrate the relationship between generic skills and organisational performance.

The literature review also shows that there has been far less emphasis on researching the links between generic skills and organisational performance in Australia, since the literature in generic skills concentrates mostly on the integration of the key competencies/employability skills into employment, school education and vocational training. The literature review also reveal that much of the relevant Australian evidence comes from case studies, consulting firm research, employer surveys or other anecdotal evidence (e.g. AIM 2012; Allen Consulting Group 2000 & 2006). As a result, the context of generic skills is barely addressed in the Australian management literature, and there is also a lack of empirical research on the relationship between generic skills and organisational performance in Australia.

The evidence of the impacts of employee engagement on organisational performance was also addressed in the literature review. However, the second part of the research problem, to examine the moderating effects of employee engagement on the relationship between generic skills and organisational performance could not be addressed through available literature because: 1) the existing empirical evidence on the relationship between employee engagement and organisational performance is insufficient, as most of the studies to date have been limited to consulting firm studies; 2) there is a lack of research treating employee engagement as a moderating variable; and 3) there is no direct evidence of the relationship between generic skills and employee engagement, and whether employee engagement can intensify the effects of generic skills on organisational performance.
Finally, the literature review presented in this chapter confirms that there are significant gaps in the knowledge of the relationship between generic skills and organisational performance, and of the moderating effects of employee engagement on that relationship. It is therefore proposed that the research problem of this study cannot be adequately addressed through reviewing the literature, and that this research can make a contribution to knowledge in this area.

2.8 Development of Conceptual Model and Hypotheses

As discussed in Chapter One, the purpose of this study is to investigate the relationship between generic skills and organisational performance and to examine the moderating effects of employee engagement on the relationship. Specifically, the research questions posed in Section 1.2.2 act to guide the hypotheses as presented in the conceptual model in Figure 2.8. As shown in the conceptual model in Figure 2.8, based on the literature review, it has been decided that the independent variables for this research consist of the following generic skills: interpersonal skills (communication, teamwork and customer service); cognitive skills (problem solving and learning); planning, personal management and enterprising skills (planning and organising; self-management; and initiative and enterprise). Employee engagement was the moderating variable as the second objective of this research is to examine the moderating effects of employee engagement on the proposed generic skills and organisational performance relationships. Finally, the dependent variable for this research has been identified as organisational performance (market performance and financial performance).

2.8.1 Hypotheses

The approach adopted was to develop a research model to understand the relationship between specific types of generic skills and organisational performance and the moderating effects of employee engagement on this relationship. From the model, the following hypotheses were derived.
Hypothesis 1

Interpersonal skills have been described as mental and communication algorithms applied during social communication and interaction to achieve certain effects and results (Ahmad et al. 2010). The dimensions of interpersonal skills used in this study are communication, teamwork and customer service skills. According to the ACCI and BCA (2002, p.39), employers in Australia consider communication skills as critical to customer service and workplace harmony, effective operations, productivity and organisational performance. Enterprises tended to see communication in a more sophisticated manner, with a demand for employee who can empathise, negotiate and in some instances communicate in multiple languages. Enterprises also expected employees to have an ability to exchange opinions/information effectively; and to speak up with suggestions and tackle problems as they arise (Field & Mawer 1996).

Effective teamwork skills contribute to productive working relationships and outcomes (ACCI & BCA 2002). Effective teamwork relies on having an appreciation of what each team member can offer – their knowledge, skills, experience, networks and insights (Field & Mawer 1996, p.28). Employers have indicated that the demand for ‘solo’ employees was negligible and working more closely with a range of different people means that employees are developing new skills and attitudes relating to co-operation and tolerance (ACCI & BCA 2002). Enterprises have also stressed the need for their employees to be customer orientated, provide excellent customer service and build strong long-term customer relationships in order to achieve organisational outcomes.

An important finding of the Allen Group survey (2000) is that key generic skills, especially those related dealing with clients and taking greater personal responsibility for quality output and services such as interpersonal skills (e.g. communication, team working, customer service etc.) are increasingly important for companies dealing with or at the cutting edge of change. Therefore, H1 is as the following:
H1: Interpersonal skills and organisational performance are positively related.

H1a: There is a significant positive relationship between communication skills and organisational performance.
H1b: There is a significant positive relationship between teamwork skills and organisational performance.
H1c: There is a significant positive relationship between customer service skills and organisational performance.

Hypothesis 2

Cognitive skills comprise learning, thinking, reasoning, problem solving and adaptability skills as suggested by Kearns (2001). In this study, the cognitive skills considered include problem solving and learning skills. According to ACCI and BCA (2002), problem solving skills contribute to productive outcomes. In high performance workplaces, there is a constant focus on solving problems in order to achieve overriding goals like customer service and quality. Process improvement projects are one form of applied problem solving, where employees are encourage to speak up with constructive criticisms and suggestions (Field & Mawer 1996). Rowlands, in Jasinski (1996, p.4.14) in a case study of the Mitsubishi Motors Australia Limited proved that problem solving has direct productivity outcomes, after the company includes a problem solving module which teaches the company's approach to problems and uses actual enterprise examples. Moreover, they found that enterprises believe their ongoing employees need to show a level of initiative and an ability to identify and solve problems before they can have a serious impact on production or service delivery.

Learning skills contribute to ongoing improvements and expansion in employee and company operations and outcomes. As an implicit component of the Employability Skills Framework learning skills are a critical skill in the workplace and the ACCI and BCA (2002) found that all enterprises participated in their research recognised the importance of learning and skill development. Participated enterprises also suggested that their employees needed to understand and think about general aspects of the economy and current affairs, and not just about the job at hand so that they could provide effective customer service (ACCI & BCA 2002, p. 44). Thus, the second hypothesis is:
H2: Cognitive skills and organisational performance are positively related.

H2a: There is a significant positive relationship between problem solving skills and organisational performance.

H2b: There is a significant positive relationship between learning skills and organisational performance.

Hypothesis 3

In this study, the dimension of planning, personal management and enterprising skills that were studied included: planning and organising; self-management; and initiative and enterprising skills. Planning and organising skills contribute to ongoing improvement and expansion in employee and company operations and outcomes. ACCI and BCA (2002) found that enterprises expected all employees in the full range of jobs to have good time management skills and strong project management capability. They also found employers also argued that project management skills, including setting goals, timelines, outputs and communicating, work allocation and progress monitoring, were important for all employees, not just technical staff, as they are critical to continuous improvement (ACCI & BCA 2002). On the other hand, the ACCI and BCA study found that self-management skills contribute to employee satisfaction and growth. Initiative and enterprise skills contribute to innovative outcomes, and appear to be increasingly important as enterprises require their employees to show initiative in the workplace. Therefore, H3 is:

H3: Planning, personal management and enterprising skills and organisational performance are positively related.

H3a: There is a significant positive relationship between planning and organising skills on the one hand, and organisational performance on the other.

H3b: There is a significant positive relationship between self-management skills and organisational performance.

H3c: There is a significant positive relationship between initiative and enterprising skills on the one hand, and organisational performance on the other.

Hypothesis 4

The differences made to productivity by skilled employees will be limited, if they are not motivated to perform well in their jobs (Delany & Huselid 1996). The most educated, highly skilled and trained people may not do a good job if they are disinterested or de-motivated and
therefore skills utilisation is dependent in part on the motivation and engagement of employees, their attitudes to their organisation, their colleagues, their customers and their job (Tamkin 2005). As suggested by Seijts and Crim (2006), engagement really makes a difference in organisational performance.

Employee satisfaction and engagement are related to meaningful business outcomes at a magnitude that is important to many organisations (Harter et al. 2002, p. 276). On the other hand, employee engagement also affects the mindset of people. Engaged employees believe that they can make a difference in the organisations they work for. Confidence in the knowledge, skills, and abilities that people possess – in both themselves and their colleagues – is a powerful predictor of behaviour and subsequent performance (Seijts & Crim 2006, p. 2). Thus, this thesis argues that employee engagement intensifies the effects of generic skills to achieve higher organisational performance. As a result, the final hypothesis is:

<table>
<thead>
<tr>
<th>H4: The positive effects of generic skills on organisational performance will be stronger when employees are highly engaged.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4a: The relationship between interpersonal skills and organisational performance will be stronger when the employee engagement level is high.</td>
</tr>
<tr>
<td>H4b: The relationship between cognitive skills and organisational performance will be stronger when the employee engagement level is high.</td>
</tr>
<tr>
<td>H4c: The relationship between planning, personal management and enterprise skills on organisational performance will be stronger when the employee engagement level is high.</td>
</tr>
</tbody>
</table>
As shown in Figure 2.8, these four key hypotheses (including 11 sub-hypotheses) were tested using the research model to assess their impact on organisational performance in the Australian business environment. Further discussion of the development and testing of this model will follow in Chapter Three, Research Methodology.
2.9 Conclusion

This chapter reviewed the extensive literature on generic skills, employee engagement and organisational performance, from various research publications, journal articles, books and other relevant sources in the areas of skills development, employment, education, human resource management and business management. The literature review reported that empirical research on the relationship between generic skills and organisational performance is rare, particularly in Australia. The existing empirical literature on the relationship between employee engagement and organisational performance is insufficient, and there is no direct evidence of the relationship between generic skills and employee engagement, and whether employee engagement can intensify the effects of generic skills on organisational performance. As a result, there are gaps in existing literature, and a research conceptual model was developed for the purpose of investigate the relationship between generic skills and organisational performance and to examine the moderating effects of employee engagement on the relationship.

Chapter Three will describe the research design, survey samples (size and selection), survey procedures, ethical issues and the analysis techniques used in this research.
Chapter Three—Research Methodology

3.1 Introduction

Chapter Three describes the research methods used in this study and the research design for the collection of data and to test the hypotheses outlined in Section 2.8.1. The chapter also discusses the analytical techniques and tools used to analyse the survey data, and the ethical issues relevant for this research. The overall structure of Chapter Three is shown in Figure 3.1.

Figure 3.1 Overall Structure of Chapter Three

Source: Developed for this research
3.2 Research Paradigms

The first step in creating a research design is the choice of suitable paradigm(s) (Chow 2002). According to Guba and Lincoln (1994, p.105), a research paradigm is a systematic conceptual framework which guides researchers on how to conduct appropriate research. It can be described as serving to define what should be studied, what questions should be asked and what rules should be followed in interpreting the answers obtained. A paradigm can indicate which method is suitable for solving the research problem. This study reviewed and evaluated three paradigms: 1) positivism, 2) phenomenology and 3) realism.

3.2.1 Positivism

The purpose of research influences its mode of inquiry, which in turn determines the choice of paradigm (Kumar 1998, p.12). According to Deshpande (1983), positivism is an objective procedure which seeks the facts and causes of phenomena without advocating a subjective interpretation. The positivist paradigm is based on an ontology which holds that there are provable assumptions in natural law and assumes that the use of appropriate methods of analysis will uncover similar natural laws that may be described in an objective and value-free manner (McNeill 1986, p.108). The epistemology of positivism is that ‘the researcher is independent and neither affects nor is affected by the subject of the research’ (Saunders et al. 2000, p.85). As stated by Tsoukas (1989), positivism requires the measurement and analysis of diverse causal variables by the construction of closed systems such as experiments and surveys in order to identify causal laws as the researchers are independent of what is being researched. As a result, researcher value and bias will not influence the outcomes when correct procedures are followed (Guba & Lincoln 1994; Kaplan 1986). Positivism primarily uses quantitative techniques, as a numeric statistical answer is usually where the positivist paradigm finds its solutions (Ellis 2004).

3.2.2 Phenomenology

The phenomenology paradigm, developed by Edmund Husserl in the early 20th-century (McNeill 1986, p.112), involves an ontology of ‘discovering underlying assumptions, of which group members are often unaware, but which influence how they perceive’ (Saunders
et al. 2000, p.86). Its epistemology holds that humans make choices regarding their actions and could therefore choose to act differently under identical circumstances at another time (McNeill 1986, p. 111). According to Cavana et al. (2001, p.9), phenomenologists argue that the world is largely what people perceive it to be and being able to generalise the results is not a crucial issue (Saunders et al. 2000). Generally, a researcher following a phenomenological paradigm will focus on the understanding of human behaviour and the research methodology developed within a phenomenology paradigm tends to yield descriptive data and may be aimed at building new theory through observation, whereas a methodology developed within a positivist paradigm is often designed for verification and testing of existing theory (Perrott 1993; Duncan 1979). The phenomenology paradigm depends on the interpretive ability of the scholar and focuses principally on qualitative techniques (Saunders et al. 2000).

3.2.3 Realism

The final research paradigm considered was realism. The core of realism is its conception of reality. The ontology of this paradigm is that there is a real world to discover, even if its structures and mechanisms are imperfect and the probabilities apprehensible (Guba & Lincoln 1994; Perry & Coote 1994; Merriam 1988; Tsoukas 1989). The epistemology is similar to that of the positivist paradigm, in that it is concerned with ‘real world’ activities at the same time. It is also similar to the epistemology of phenomenology in that it accepts ‘realities’ that may not be empirically tested (Ellis 2004, p.126-127). Methodologies in realist paradigms typically involve multi-method approaches using primary and secondary data. Researchers with a realist orientation observe the empirical domain in order to discover knowledge by combining theoretical reasoning and experimentation (Outwaite 1983). By using the realist multi-method approach paradigm, researchers are able to allow triangulation (the use of different data collection methods within one study) to take place to cross-check information conclusion (Saunders et al. 2000). In other words, the realist paradigm creates knowledge about an external reality that is probably true, rather than completely true as asserted by positivism (Perry et al. 1999, p.18).
3.2.4 Justification of Selected Research Paradigm

Based on the discussions above, the key characteristics of the three research paradigms are outlined in Table 3.1 to assist the choice of paradigm for this research. The initial investigation of the research problem was conducted through a literature review, which was summarised in Chapter Two. Based on the nature of the research problem, the research questions, and examples from the existing literature, a positivist paradigm was chosen for this study. This is because the major purpose of this research is to measure the correlation between generic skills and organisational performance, and to test the moderating effects of employee engagement on the relationship between generic skills and organisational performance. As such, this research requires an objective research approach rather than a subjective one. The positivist paradigm is therefore appropriate because the goal of using an objective approach is to discover potential relationships and produce generalisable knowledge (Ellis 2004).

As the research does not involve theory building, neither the phenomenology nor the realist paradigm seems to be suitable for this study. Furthermore, the deductive method of testing theories or hypotheses is associated with the positivist paradigm and it is common for methods such as survey research to be used to collect the data for analysis. Thus, the positivist approach, based on survey research (which will be discussed in Section 3.4) is appropriate for this research as it will allow the researcher to collect data from many participants without having any direct influence on them. Finally, utilising the positivist approach will achieve the aims of this study due to the fact that the researcher does not need to attempt to build a subjective relationship between themselves and the respondents in order to create the findings (Dejnambanchachai 2007).
Table 3.1 Key Characteristics of Research Paradigms

<table>
<thead>
<tr>
<th>Paradigm/Element</th>
<th>Positivism</th>
<th>Phenomenology</th>
<th>Realism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontology</strong> – Fundamental beliefs</td>
<td>A single apprehensible reality that is known.</td>
<td>Reality shaped by social, political cultural and gender values.</td>
<td>Critical realism – there is a single reality but it is imperfectly apprehensible.</td>
</tr>
<tr>
<td><strong>Epistemology</strong> – Theory of method on grounds of knowledge</td>
<td>Value-free findings. Observer is separated from the process.</td>
<td>Interaction between researcher and research object.</td>
<td>Researcher is part of research, but remains as objective as possible.</td>
</tr>
<tr>
<td><strong>Methodology</strong> – Process of conducting research within a paradigm</td>
<td>Experimental /manipulative verification of issues usually quantitative, using experiments or surveys.</td>
<td>Transformative, intellectual. Using focus groups and action research.</td>
<td>Using case studies, this method depends on triangulating several perceptions of reality. Includes qualitative and quantitative techniques.</td>
</tr>
</tbody>
</table>

*Source: Developed for this research as adapted from Ellis (2004); Cavana, et al. (2001); Perry, Riege and Brown (1999); Guba and Lincoln (1994)*

### 3.3 Research Design

Section 3.3 reviews a number of research design considerations such as research approaches and types of business research; and justifies the selected methodology from a theoretical and practical perspective. A methodology is proposed for data collection in order to answer research questions and test hypotheses.

#### 3.3.1 Research Approaches- Quantitative versus Qualitative Research

According to Easterby-Smith et al. (1991), research can be quantitative or qualitative. This section reviews these two core research approaches before discussing the justification of the selected research approach.
3.3.1.1 Quantitative Research

Quantitative research is conceptualised as having a logical structure in which the researcher addresses the research problem by formulating hypotheses which are based on existing theories (Neuman 2010; Bryman 1999). Gay and Diehl (1992) state that quantitative research methods are appropriate when quantifiable measures of the variables of interest are required and where hypotheses need to be tested. To test these hypotheses, the researcher develops precise measures with numbers (variable, reliability, statistics, hypotheses, replication and scales) to capture important features of their investigating issues (Neuman 2010). Generally, quantitative research involves methods which quantify the relationships between variables such as weight, time and performance (Sekaran 2003). Quantitative research can also be used to measure customer/employee attitudes, satisfaction, commitment and a range of other useful market data that could be tracked over time (Lee 1993).

Quantitative research focuses on the collection, analysis and presentation of numerical data (Zikmund 2003) and often uses statistical measures such as frequencies, correlations, regression, or other methods to describe and explain the relationships between variables (Ticehurst & Veal 2000). The most common quantitative research methods available include observation techniques, experimentation, and surveys (Sekaran 2003; Cooper & Schindler 1998). In terms of interpretation of data and findings, the quantitative results are expressed in numbers such as percentage or statistical coefficients (Neuman 2010). In order words, researchers will utilise numbers to explain how they relate to the research hypotheses and to prove or disapprove them.

3.3.1.2 Qualitative Research

According to May (2001), qualitative research involves questioning knowledgeable respondents individually or in small groups regarding the ‘why’ of behaviour and this design is mostly used in exploratory research. Qualitative research aims to understand actions and attitudes of human beings with in-depth data, possibly through interactive and interview processes (Neuman 2010) as qualitative research is subjective. Previously, qualitative research leaves most of the measurement process to the discretion of the researcher (Lee 1993), but at present, there are many software can be used to manage and quantify qualitative
data such as NVivo, NU*DIST, ATLAS and XSIIGHT (Bazeley 2006). Qualitative researchers now have the option to ‘technologised’ their approach in data management and data analysis to ease the complexity of the research process (Bakar & Ishak 2012, p.94).

Qualitative research methods tend to be most appropriate where the aims of the research involve building theory, rather than testing pre-existing ideas in a given environment. Qualitative research involves the use of qualitative data, such as interviews, focus groups, documents and participants’ observation data, to explain certain social phenomena (Punch 1998). These social phenomena can then be organised into a cluster of linked ideas to form new theories. Qualitative research allows the researcher to explore new areas of research and build new theories through face-to-face interviews with respondents to uncover knowledge of a particular phenomenon (Hakim 1992 & 2000). The limitations of qualitative studies are that they do not tend to be generalisable to a large population and tend to result in fairly subjective conclusions (Neuman 2010).

### 3.3.1.3 Differences between Quantitative and Qualitative Research

Having reviewed the two core research methodology approaches, it is suggested that quantitative research differs from qualitative research in the following ways (Burn 2000):

- Data is gathered through more structured research instruments
- Results provide less details on behaviour, attitudes and motivation
- Results are based on a larger sample size that is representative of the population
- Research can be replicated with high reliability
- Analysis of results is more objective in quantitative method

Finally, to summarise this section, a comparison between the features associated with quantitative and qualitative research is presented in Table 3.2.
Table 3.2 Comparisons between quantitative and qualitative research

<table>
<thead>
<tr>
<th>Comparison Dimension</th>
<th>Quantitative Research</th>
<th>Qualitative Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>To quantify the data and generalise the results from the sample to the population of interest</td>
<td>To gain an initial and qualitative understanding of the underlying reasons and motives</td>
</tr>
<tr>
<td>Approaches</td>
<td>Theory is largely causal and deductive</td>
<td>Theory can be causal or non-causal and is often inductive</td>
</tr>
<tr>
<td>Type of research</td>
<td>Descriptive and/or causal</td>
<td>Exploratory</td>
</tr>
<tr>
<td>Flexibilities in research design</td>
<td>Low (as a results of a standardised and structured questionnaire: one-way communication)</td>
<td>High (as a result of the personal interview, where the interviewer can change questions during the interview: two-way communication)</td>
</tr>
<tr>
<td>Sample Size</td>
<td>Large (100+)</td>
<td>Small (15–60)</td>
</tr>
<tr>
<td>Data analysis</td>
<td>Statistical summary</td>
<td>Subject, interpretative</td>
</tr>
<tr>
<td>Ability to replicate with same results</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Interview requirement</td>
<td>No special skill required</td>
<td>Special skills required (an understanding of the interactions between interviewer and respondent)</td>
</tr>
<tr>
<td>Time consumption during research</td>
<td>Design phase: High (formulation of questions must be correct) Analysis Phase: Low (the answers to questions can be coded)</td>
<td>Design phase: Low (no &quot;exact&quot; questions are required before the interview) Analysis phase: High (as a result of many &quot;soft&quot; data)</td>
</tr>
</tbody>
</table>

Source: Developed for this research as adapted from Neuman 2010; Hollensen 2004; Zikmund 2003

3.3.1.4 Justification of the Selected Research Approach

Given the previous discussion of qualitative versus quantitative research approaches, it is evident that quantitative research was preferred for this study, given the nature of the research is to seek answers to a set research hypotheses rather than to attempt to build theory, and that the research is positivist. The justification for the quantitative research method used in this study is that the objective of this research is to test six hypotheses related to different types of generic skills that influence organisational performance and the moderating effect of employee engagement. The next section (3.3.2) will present a review of the main types of quantitative research approaches which tend to be used in business research.
3.3.2 Types of Business Research Considered in this Research

Zikmund (2003) states that research into a range of business related issues can generally be divided into three types: (1) descriptive research; (2) causal research; and (3) exploratory research. This section reviews the three types of business research before justifying the selected business research approach for this study.

3.3.2.1 Exploratory Research

Exploratory research is ‘initial research conducted to clarify and define the nature of a problem’ (Zikmund 2003, p.110). It is suitable when researchers have no idea of the problem and need to discover more information related to the problem (Zikmund 2003). For example, this approach can help a marketing company test a concept before launching a product for sale (Ticehurst & Veal 2000). In other words, exploratory studies are a ‘valuable means of finding out what is happening and gaining insights to assess phenomena in a new light’ (Saunders et al. 2000, p.97) and exploratory research is mostly used in qualitative research. Practically, the results of exploratory research can provide some indication as to ‘why’, ‘how’, and ‘when’ something happens. However, it cannot indicate ‘how often’, or ‘how many’ (time/number). Therefore, a result cannot represent the whole population being studied (Zikmund 2003).

Exploratory research can be applied through either an informal or formal approach. Using an informal approach, researchers can collect data by different methods such as a literature review or an informal discussion with customers, employees, management or even competitors (Sekaran 2003; Gay & Diehl 1992). Using the formal approach, researchers can obtain data by in-depth interviews, focus groups, case studies, or pilot tests (Zikmund 2003; Ticehurst & Veal 2000).

3.3.2.2 Causal Research

The aim of causal research is to explore and establish cause-and-effect relationships between variables where the research problems have been clearly defined (Zikmund 2003; Quee 1999; Malhotra 1996). In causal studies it is typical to have an expectation of the relationship to be
explained, such as a prediction about the influence of price, packaging, advertising, and the like on sales. Thus researchers must be knowledgeable about the subject (Zikmund 2003, p. 56). According to Malhotra (1996) and Quee (1999), causal research is typically accomplished through laboratory and/or controlled experiment, which involves manipulation of independent variables and control of other mediating or/moderating variables to enable the measurement of the effects on other variables. In addition, it can also involve research which attempts to assess the relationship between variables.

While the research objectives in this study do not require any experimentation to address the stated hypotheses, it requires an investigation of the relationship between variables (i.e. types of generic skills, employee engagement and organisational performance). As a result, there is an element of causal research adopted in this research.

3.3.2.3 Descriptive Research

The major purpose of descriptive research, as the term implies, is to describe the characteristics of a population in regard to a particular phenomenon. Descriptive research seeks to determine the answers to who, what, when, where and how questions (Zikmund 2003, p. 55). Thus, descriptive research is used when the objective is to provide a systematic description that is as factual and accurate as possible (Zikmund 2003), as described by Saunders et al. (2000, p.97) ‘to portray an accurate profile of persons, events and situations’. In addition, ‘descriptive research is often carried out to describe characteristics of groups within an organisation or community’ (Sekaran 2003, p.121).

According to Copper and Schindler (1998), descriptive research is normally used to explain consumer behaviour. It cannot establish a causal relationship between variables (Hussey & Hussey 1997) since descriptive approaches alone cannot explain the causes of specific behaviour, motivation, and occurrence. In terms of research techniques, the most widely-used methods to conduct descriptive research tend to be observational and survey techniques. However, survey research tends to be the more objective approach as the researcher is less likely to misinterpret data than they are when they are observing behaviours or events (Copper & Schindler 1998).
**Survey Research**

Zikmund (2003) defines a survey as a method of primary data collection based on communication with a representative sample of individuals with the objective of producing quantitative descriptions of some aspects of the studied population. The primary concern in a survey is to collect data to determine the relationships between research variables (Burns 2000; Perry 1998). Basically, the subjects studied might be individuals, groups, organisations, or communities; they also might be projects, applications, or systems (Burns 2000; Baker 1999). Survey research is a quantitative method which requires standardised information (through the use of the survey instrument) from and/or about the subjects being studied. It is more reliable than other techniques (Copper & Schindler 1998; Gay & Diehl 1992) as the standardisation and uniformity of the survey technique helps respondents answer the questionnaires (Ticehurst & Veal 2000). It also provides a quick, efficient, inexpensive and accurate means to obtain information from a given population (Zikmund 2003; Copper & Schindler 1998). A detailed review of survey methods, and their strengths and weaknesses in business research, is presented in Section 3.4.

**3.3.2.4 Justification of Selected Business Research Method**

After reviewing the three main business research methods mentioned above, descriptive and causal research were chosen for this research because descriptive research involves collecting data through the administration of a survey questionnaire to a group of appropriately selected respondents to answer research questions. The researcher has chosen the survey research method because this study is a quantitative study and because causal research can identify the relationship between variables, specifically the relationship between generic skills and organisational performance.

**3.4 Survey Design**

Section 3.3 provided a broad overview of the research approaches (quantitative and qualitative research) and the three main types of business research (exploratory, causal and descriptive research). The aim of this section is to discuss the survey research method and
sample design. Given the positivist nature of this research and the need to test research hypotheses through a quantitative approach, the method used to collect the data for this study was through the administration of an online survey questionnaire to a group of appropriately selected respondents.

3.4.1 Survey Research Methods

Herzog (1996) defines surveys as ‘self-report measuring instruments’ and classifies them in terms of stimuli (or questions) and responses (or answers). Surveys can take many forms such as online, mail, email, telephone interviews and face-to-face interview and they generally tend to take one of two forms: (1) assisted by an interviewer; or (2) respondent-completed (i.e. self-administered mail and online questionnaires). Gorard (2003, p.91) suggests that the ‘key decision affecting the likely response rate, cost, speed, sample size and length of your questionnaire is how you intend to deliver it to your sample’. In the case of interviewer-completed surveys, an interviewer reads the questions out to the respondent and records the respondent’s answers on the questionnaire. In respondent-completed questionnaires, respondents fill out the questions independently (Dejmambanchachai 2007, p.74).

3.4.1.1 Personal Approaches (face-to-face or telephone interviews)

Surveys conducted via face-to-face or telephone interviews are generally expensive, time-consuming and have a profound impact on the cost of research. However, the benefits of the interview survey methods are that they provide higher interactivity between interviewer/s and respondents, higher responses and the ability to gather richer data (Gorard 2003; Cavana, Delahaye & Sekaran 2001). Judd (1992 & 2000) suggests that the reasons for the high response rate for face-to-face interviews include the intrinsic attractiveness of being interviewed, the difficulty of saying ‘no’ to someone in person, and the fact that the importance and credibility of the research are conveyed best by a face-to-face interviewer who shows identification and credentials. According to Neuman (2010), the main differences between telephone and personal interviews are that telephone interviews are considered as less costly with greater anonymity and geographic reach, but the telephone interview has its weaknesses including a lack of verbal cues and a lack of control over the interview.
3.4.1.2 Self-administered Approaches (mail, email or online questionnaire)

Another approach to business research is the self-administered survey such as surveys conducted via mail, email or online/web-based questionnaires. According to Neuman (2010) and Bryman (2001), the mail survey method has the advantages of being inexpensive, quick to administer, with no interviewer variability, convenience for respondents and greater geographic reach, and the respondents are assured of confidentiality. The main weaknesses of self-administered approaches are the lower response rate, an inability to probe and the difficulty of collecting additional data (Bryman 2001). On the other hand, electronic questionnaires via emails or web portals can achieve greater global reach (Zikmund 2003), the questionnaires can be delivered to the participants within seconds and the research is able to receive several thousand responses within a day or two. The main disadvantages are: a low response rate (as many people dislike unsolicited emails even more than unsolicited regular mail); people can easily quit in the middle of a questionnaire; respondents might be unclear about the questionnaire; and it might be difficult to prevent people responding multiple times to bias the results (Neuman 2010).

3.4.1.3 Justification for the Selected Survey Method

The criteria for selecting an appropriate survey design for this research are cost, speed and anonymity. In this research, a web-based online questionnaire survey method was preferred and chosen as it is a cost-effective and speedy method of gathering information and it has the ability to reach a decent number of respondents. The number of respondents should be large enough to allow a statistical analysis of results. Moreover, given the fact that respondents such as executives, managers and professionals are often extremely busy, the web-based approach enabled them to answer the questionnaire anytime at their convenience during the survey period. Compared to the mail survey, a web-based online survey is more convenient since the completed questionnaires could be submitted within seconds rather than taking a few days for postal delivery. As a result, the researcher could collect and analyse all the survey responses within a tight timeframe.

The advantages and disadvantages of utilising different types of survey research methods are summarised in Table 3.3.
Table 3.3 Advantages and Disadvantages of Different Survey Methods

<table>
<thead>
<tr>
<th>Methods</th>
<th>Advantages and Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Face-to-face interviews</strong></td>
<td><em>Advantages</em></td>
</tr>
<tr>
<td>INTERACTIVE</td>
<td>Able to find the target population</td>
</tr>
<tr>
<td></td>
<td>Respondents may be willing to talk longer face-to-face than to someone on the phone.</td>
</tr>
<tr>
<td></td>
<td>Visual materials may be shown or demonstrated; probing possible.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
<td>High cost/interviews can be very time consuming.</td>
</tr>
<tr>
<td></td>
<td>The interviewer is considered a part of the measurement instrument so the interviewers have to be well trained.</td>
</tr>
<tr>
<td><strong>Telephone interviews</strong></td>
<td><em>Advantages</em></td>
</tr>
<tr>
<td>INTERACTIVE</td>
<td>People can usually be contacted faster over the telephone than with other methods.</td>
</tr>
<tr>
<td></td>
<td>Advanced technology like CATI (computer assisted telephone interviewing) software, makes complex questionnaires practical by offering many logical options. It can automatically skip questions, perform calculations and modify questions based on the answers to earlier questions. It can check the logical consistency of answers and can present questions or answer choices in a random order.</td>
</tr>
<tr>
<td></td>
<td>Skilled interviewers can often elicit longer or more complete answers than people who participate in mail/email surveys on their own.</td>
</tr>
<tr>
<td></td>
<td>Interviewers can also ask for clarification of unclear responses.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
<td>Many people are reluctant to answer phone interviews.</td>
</tr>
<tr>
<td></td>
<td>High cost and can be very time consuming.</td>
</tr>
<tr>
<td></td>
<td>Many people don’t have publicly-listed telephone numbers.</td>
</tr>
<tr>
<td></td>
<td>Interviews have to be relatively short or people will feel imposed upon.</td>
</tr>
<tr>
<td><strong>Mail Surveys</strong></td>
<td><em>Advantages</em></td>
</tr>
<tr>
<td>NON-INTERACTIVE</td>
<td>Least expensive.</td>
</tr>
<tr>
<td></td>
<td>Able to find the target population.</td>
</tr>
<tr>
<td></td>
<td>Respondents complete the survey in private, when it’s convenient.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
<td>Poorly design questionnaire will have low response rate/respondents unable to understand what is required/respondents failed to return competed surveys within specific timeframe.</td>
</tr>
<tr>
<td><strong>Email Surveys</strong></td>
<td><em>Advantages</em></td>
</tr>
<tr>
<td>NON-INTERACTIVE</td>
<td>Speed &amp; low cost - an email questionnaire can gather several thousand responses within a day or two.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
<td>Low response rate: many people dislike unsolicited email even more than unsolicited regular mail.</td>
</tr>
<tr>
<td></td>
<td>Respondents might be unclear about the questionnaire.</td>
</tr>
<tr>
<td><strong>Internet/Web-based Surveys</strong></td>
<td><em>Advantages</em></td>
</tr>
<tr>
<td>NON-INTERACTIVE</td>
<td>Speed &amp; low cost - a questionnaire posted on a popular Web site can gather several thousand responses within a few hours.</td>
</tr>
<tr>
<td></td>
<td>On average, people give longer answers to open-ended questions on Web page questionnaire.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
<td>People can easily quit in the middle of a questionnaire.</td>
</tr>
<tr>
<td></td>
<td>Might be difficult to control people responding multiple times to bias the results.</td>
</tr>
</tbody>
</table>

*Source: Developed for this research as adapted from Neuman 2010*

### 3.5 Sample Design

The process of sampling involves any procedure using a small number of items or parts of the whole population to draw conclusions about the whole population. The purpose of sampling is to enable researchers make judgements about some unknown characteristic of the
population (Zikmund 2003, p.369). As the survey research method for this study has been discussed in Section 3.4.1, the aim of this section is to specify the target population; sampling and selection; and the survey administration procedures.

3.5.1 Industry Analysis: The Australian Finance and Insurance Industry

The finance and insurance industry is one of the largest contributors to Australia’s gross domestic product generating more than 10% of Australian output or A$132 billion of real gross value in 2012 (ABS 5206.0, 2012). The industry employed approximately 424,900 people in 2012, which accounted for 3.9% of the total Australian workforce (ABS 6291.0.55.003, 2012). According to the Reserve Bank of Australia (2011), there are approximately 4,564 companies in the finance and industry and three main types of financial institutions:

1) **Authorised Deposit-taking Institutions (ADIs):** national and regional banks, foreign banks, building societies and credit unions.
2) **Non-ADI Financial Institutions:** money market corporations/merchant banks, finance companies and securitisers.
3) **Insurers and Fund Managers:** life insurance companies, general insurance companies, superannuation, public unit trusts, cash management trusts, common funds and friendly societies.

Australia’s finance and insurance industry is extremely important to the economy; it has sought to leverage the country’s strengths in natural resources, infrastructure, public-private partnerships, property and related capital market activities (Austrade 2011, p.5). In terms of capacity, among 21 countries surveyed by the Asian Bankers 500, Australia has the largest pool of bank assets in the region after Japan and China. Australia’s total bank assets accounted for around 240 per cent of the country’s nominal GDP, well above Japan (193), China (178), South Korea (146), India (102), and the regional average (176) (Austrade 2011, p.6). As for reputation, Australia is well positioned as a banking centre in the Asia-Pacific region, with 20 of Forbes’ top 25 banking institutions having a presence in Australia (Austrade 2011; Forbe 2010). Australia is ranked fifth amongst the world’s 57 leading financial systems and capital markets in the World Economic Forum Financial Development
The finance and insurance industry also has a highly skilled and multilingual workforce, which ranks favourably across the region and other financial centres.

The Australian finance and insurance industry was facing an uncertain time in 2010–2011 due to global markets downturn, but overall, the outlook of the industry remained positive for the next five years. According to IBIS World industry research (2011), the industry will grow in importance as expanding household wealth, funds under-management and economic activity drive demand for an increasing array of financial services and products. In the five years through 2016–17, industry revenue is expected to grow by an average of 4.1% per annum.

In this study, the finance and insurance industry was chosen as the research domain for a number of reasons. The researcher aimed to select an industry that displays potential, competitiveness, dynamism and prosperity as a starting point for this research context. After being considered against the structural changes to the economy as discussed in Section 1.1, she contends that the finance and insurance industry has potential to become Australia’s major industry in the near future and may take over mining and other traditional industries, such as manufacturing and construction. Given that the finance and insurance industry is one of the largest contributors to the Australian economy but has a relatively small workforce, the researcher was particularly interested in exploring the industry’s success factors. She believes that researching top performing finance and insurance institutions will enable her to obtain a comprehensive understanding of the essential generic skills and workforce behaviour such as employee engagement that can contribute to success in a highly competitive domestic market, and in the Asia Pacific region.

3.5.2 Sampling and Selection Process

The IBIS World Company and Industry Research Top 2,000 companies list is used as the sampling frame for this study. As at January 2012, there were a total of 218 financial and insurance institutions listed in Australia’s Top 2,000 companies. According to IBIS World (2012), the top 2,000 rankings are based on the most recent available financial data and include listed and non-listed public companies, private firms, foreign-owned businesses,
trusts and governmental departments. The combined revenue of these companies accounted for about 65% of the economy.

The Top 2,000 companies list of IBIS World Company and Industry Research is adopted due to its reputation for accuracy in business intelligence (e.g. companies and key personnel contacts information). The researcher obtained a Top 2,000 companies list with the contact details of over 4,500 key personnel details through a private research subscription, for the purpose of sampling and recruitment of participants. These personnel included managing directors, general managers and non-executive directors. The contact details of approximately 1,000 senior executives/managers were sourced from the 218 top finance and insurance institutions (on average, three executive contact details per company), in the following finance and insurance industry sectors:

1) *Authorised Deposit-taking Institutions (ADIs):* national and regional banks, foreign banks, building societies and credit unions.

2) *Non-ADI Financial Institutions:* money market corporations/merchant banks, finance companies and securitisers.

3) *Insurers and Fund Managers:* life insurance companies, general insurance companies, superannuation, public unit trusts, cash management trusts, common funds and friendly societies.

### 3.5.2.1 Target Population

A purposive sampling technique was adopted for this research, where only senior executives/managers of the Australian finance and insurance companies (218 companies) listed in the IBIS World top 2,000 companies list were asked to participate in this research, as they were expected to have thorough understanding and deep knowledge of their staff and how their organisations performed (details of respondents’ profile will be presented in Chapter Four). Also, as discussed in Section 2.5.2.1, several scholars (Wall *et al.* 2004; Winter 2003; Venkatraman & Ramanujam 1987) suggest that senior executives/senior managers are ‘well-informed’ respondents as they are in a high-level decision making positions in their organisations. Therefore, they can be thought of as representatives of the organisation and as being able to provide accurate answers. A strict rule of this study was that
only one senior executive/manager of each organisation was invited to participate in the survey since this is a firm-level study (one observation per firm).

The details of how the participants were recruited will be discussed in Section 3.5.3.

### 3.5.2.2 Sample Size

There are generalised scientific guidelines as to what constitutes an acceptable decision on sample size for a given population (Cavana et al. 2001, p.278). In order to determine the sample size, Zikmund (2003, p.240-241) states that it depends on the kind of data analysis the researcher plans, on how accurate the sample has to be for the researcher’s purpose, and on population characteristics. Indeed, a large sample size alone does not guarantee a representative sample and a large sample without random sampling or with a poor sampling frame is less representative than a small one with random sampling and an excellent sampling frame. On the other hand, when the population elements are highly homogeneous, samples are highly representative of the population. As a result, only a small sample is required. Further, when populations have considerable heterogeneity, large samples provide data of sufficient precision to make most reliable decisions (Zikmund 2003). One principle of sample sizes is that, the smaller the population, the bigger the sampling ratio has to be for an accurate sample. In other words, larger populations permit smaller sampling ratios for equally good samples (Zikmund 2003, p.241). Cavana et al. (2001) further suggest that sample sizes that are larger than 30 and smaller than 500 are appropriate for most research. They contend that too large a sample such as more than 500 would be prone to committing Type II errors – that is, accepting the findings when in fact results should be rejected (Lim 2007, p.89).

The target sample of 218 top performing finance and insurance companies was within an excellent sampling frame and they are highly homogeneous (as discussed in Section 3.5.2). Therefore, it could be concluded that the target sample of 218 is a significant number for this research and the 104 usable responses (48% of the target sample) is an appropriate figure to meet the sampling criteria discussed in this section.
3.5.3 Survey Administration Procedures

As discussed in Section 3.5.2.1, the researcher obtained a contact list of approximately 1,000 senior executives/managers of the 216 top performing finance and insurance companies in Australia, for the purpose of recruiting survey participants. It is important to re-state that this research is a firm-level study which allows only one observation per organisation. And therefore, only one participant invitation was issued for each company. The researcher, assisted by three colleagues, contacted 620 senior executives and managers of the 216 finance and insurance companies via phone in the initial recruitment and sourcing process. Prior to making any phone calls, a briefing session on confidentiality and privacy issues was provided by the researcher to her three colleagues to ensure that they were familiar with the subject, so that they could ensure potential participants’ privacy and confidentiality when participating in this research. A telephone script (Appendix 2) was provided to the colleagues for recruitment purposes, with a statement assuring participants that their personal details would not be circulated to any person other than the researcher; and the confidentiality and security of data/information would be protected by the researcher and the university. (It is important to state that, this research is original and independent. The three colleagues of the researcher were ONLY responsible for the recruitment of survey participants and making follow-up calls. They did not participate in other parts of this research, such as involve in generating research concepts, data analysis and thesis writing etc.)

The researcher obtained 115 email addresses with permissions to send out survey invitations and related information directly to participant’s work/personal emails. Sixty-five survey invitations were sent via the professional social network, LinkedIn, based on participants’ preferences, and a further 38 invitations were sent by mail to participants’ offices. The researcher and her colleagues secured one representative for each target organisation to participate in this research. As a result, a total of 218 invitations were sent via email, LinkedIn and post. The invitations (Appendix 1) included an introduction to explain the purpose of the survey; an indication that participation in this study was voluntary with an assurance that anonymity and confidentiality of the information provided by respondents would be guaranteed; an URL is provided for participants to access the survey online; the principal researcher and supervisor’s contact details; and the closing date and time of the survey are included.
The recruitment and sourcing process was completed in a three-week period (between 23\textsuperscript{rd} March and 11\textsuperscript{th} April 2012) through a minimum of six hours contacting time spent on each business day (between 9am and 5pm). As an indication of duration, preparation of the survey took approximately 3 months (January to April 2012) and the online survey was administered between 16\textsuperscript{th} April and 11\textsuperscript{th} June 2012 via a web-based survey portal, www.surveymonkey.com. Techniques such as reminder emails and follow-up phone calls were used to obtain a high response rate. For example, the first reminder message was sent during the third week of the survey period; the second reminder was sent during the fifth week; and a final reminder was sent in the seventh week. It is also important to mention that new recruitment calls were also made as some of the invited participants dropped out. The researcher and her colleagues asked the invited participants whether they were still able to complete the survey during the follow-up calls, if the answer was ‘no’, the researcher/colleagues then recruited another representative for that targeted organisation. Altogether, the researcher and her colleagues made more than 400 follow-up and new recruitment calls, and sent more than 300 messages via email, LinkedIn and by post in order to secure a response rate of 48%.

### 3.5.3.1 Risk to the Participants

The risk level to the participants in this research was negligible as they were only required to complete an anonymous survey online. This research did not lead to harm, discomfort or inconvenience for participants or others, such as physical harm, psychological harm, devaluation of personal worth, social harm, economic harm or legal harm. The participants did not need to travel to participate in the research, and only approximately 20–25 minutes of their time was required to complete the survey online.

The researcher ensured that all assistants gained sufficient knowledge of confidentiality issues before contacting any potential participants, as mentioned in Section 3.53. All invitations (via email, LinkedIn and post) included an information sheet (Appendix 1) with details of the purpose of this research, confidentiality and privacy issues, security of data and information and the contact details of researcher and her supervisor.
3.5.3.2 Anonymous Survey

The online questionnaire for this study was an anonymous survey, and participants were only asked to provide information related to the topic of research. The demographic information collected from the survey was not sufficient to identify them and their companies. Participants were not asked to provide their names and company names and they were assured by the researcher of their confidentiality and anonymity repeatedly, during the survey recruitment and follow-up processes. The reasons for these measures were to avoid a low response rate, to reduce the problem of self-reporting bias and ensure the accuracy of information collected.

In Section 3.6, the online survey questionnaire which linked to the theoretical framework and hypotheses for this study will be discussed, as will the pilot test and the reliability and validity check process.

3.6 Survey Development

This section focuses on the development of the survey for this research. It provides details regarding the measurement methods for variables, questionnaire design, the pilot survey and issues relating to the reliability and validity of the selected survey instrument.

3.6.1 Measurement of Variables

Neuman (2010, p.181) argues that when quantitative researchers measure, they begin with an abstract idea, followed by a measurement procedure, and end with empirical data that represent the original idea. He suggests that the researcher should first conceptualise and define a variable. At the next level, the researcher should then operationalise the process by developing an operational definition or set of indicators before applying the indicators empirically (Neuman 2010). The variables of this study have been defined and discussed in Chapter Two. Measures in this research were operationalised by referring to a number of literature sources for the appropriate phrasing of specific items. In this section, the measurement techniques for the research variables will be discussed.
3.6.1.1 Operationalised Measures for Generic Skills

As discussed in the literature review, previous studies all used training expenditure, educational attainment and qualification levels as proxies to measure skills, and they did not specify any skill types or categories. This thesis argues that previous studies did not measure the performance impacts attributable to ‘skills’; rather, they focused on the associations between money spent on training, educational attainment, qualifications levels achieved and performance outputs. Although there are questions on generic skills such as the UK Employer skills surveys (Felstead et al. 2007), but a scale for measuring only generic skills was rarely found in the literature. In this study, the items used to measure interpersonal skills (communication; teamwork; customer solving); cognitive skills (problem solving; learning); and planning, personal management and enterprising skills (planning and organising; self-management; initiative and enterprise) were adapted from ACCI and BCA (2002), Kearns (2001) and Field and Mawer (1996) (Table 3.4 illustrates the survey items for interpersonal skills).

As described in the literature review, the Employability Skills Framework was developed by ACCI and BCA through a comprehensive study of the generic skills that employers sought in their new and existing employees. The key skill elements under each type of generic skill in the framework were those believed by employers to be essential to organisational performance. Thus, utilising the key skill elements in the Employability Skills Framework from ACCI and BCA (Section 2.3.4) to measure the utilisation/effects of generic skills seems to be appropriate to facilitate an understanding of, and to discover the relationship between different types of generic skills and organisational performance. This study also adapted Kearns’s (2001) clusters of key generic skills model (Figure 2.3) to create two broader generic skills categories: interpersonal skills (communication; teamwork; customer services) and cognitive skills (problem solving; learning). A few elements from Field and Mawer’s (1996) study of the generic skill requirements of high performance workplaces were also adapted as the measurement items of generic skills, such as ‘have strong ability to exchange opinions/information effectively’ in Question 1 of the survey questionnaire (Section 3.6.2).
Table 3.4: Operationalised Measures for Generic Skills

<table>
<thead>
<tr>
<th>Survey Items for the Interpersonal Skills Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Adapted from ACCI &amp; BCA (2002); Kearns (2001); Field &amp; Mawer (1996)</em></td>
</tr>
<tr>
<td><strong>Commun01</strong></td>
</tr>
<tr>
<td><strong>Commun02</strong></td>
</tr>
<tr>
<td><strong>Commun03</strong></td>
</tr>
<tr>
<td><strong>Commun04</strong></td>
</tr>
<tr>
<td><strong>Commun05</strong></td>
</tr>
<tr>
<td><strong>Teamwork01</strong></td>
</tr>
<tr>
<td><strong>Teamwork02</strong></td>
</tr>
<tr>
<td><strong>Teamwork03</strong></td>
</tr>
<tr>
<td><strong>Teamwork04</strong></td>
</tr>
<tr>
<td><strong>Teamwork05</strong></td>
</tr>
<tr>
<td><strong>Teamwork06</strong></td>
</tr>
<tr>
<td><strong>CustomerSer01</strong></td>
</tr>
<tr>
<td><strong>CustomerSer02</strong></td>
</tr>
<tr>
<td><strong>CustomerSer03</strong></td>
</tr>
<tr>
<td><strong>CustomerSer04</strong></td>
</tr>
<tr>
<td><strong>CustomerSer05</strong></td>
</tr>
</tbody>
</table>

*Source: Developed for this study*

In this study, the respondents were asked to indicate the extent to which these eight specific types of generic skills (with a total of 42 key skill elements) influenced the performance of their organisations on a seven-point Likert scale (1= most insignificant; 4= neutral; 7= most significant). Generally speaking, this is similar to the approach based on evaluation by managers used in previous studies, such as Landy and Farr (1980), which suggests that senior executives and managers’ evaluation is accurate and reliable because they are extremely familiar with their employees’ skill competences, and how these skills contribute to their business performance based on long-term observations. In addition, the respondents would have utilised the outcomes of these observations for their organisation’s strategic planning and decision making processes. The researcher suggests that utilising such new methods to measure and quantify generic skills can facilitate further understanding and improvement in this research context.
The phrasing of the questions and answers were derived from ACCI and BCA’s Employability Skill Framework (2002); Kearns’s (2001) clusters of generic skills; and Field and Mawer’s generic skill requirements of high performance workplaces (1996). The full details of the survey questions for generic skills will be discussed in Section 3.6.2 Questionnaire Design.

3.6.1.2 Operationalised Measures for Employee Engagement

The researcher adopted a purposive sampling technique for this research, where only senior managers/executives were expected to participate. One of the reasons for this was that large organisations are more likely to have systems in place (e.g. internal survey studies) to assess employee engagement levels in their organisation. An approach based on evaluation by managers is utilised to measure employee engagement for this study. Concerning this, Ahmad et al. (2010, p.190) suggest that the rating-by-managers approach is a meaningful construct as proven by Shore et al. (1995) and Allen (1994) in their studies on managerial perception of employee commitment to the organisation and the approach showed good reliability with a coefficient alpha of 0.77.

In this study, employee engagement is measured by adapting a few items from the Q12 indicators developed by the Gallup Organisation (2004) (as discussed in Section 2.6.3), the engagement measurement indicators made by the IES (2003) and some suggestions in Tamkin’s (2005) study as discussed in Chapter Two. These previous studies all found critical links between employee engagement, customer loyalty, business growth and profitability. There are a total of eight items used to measure employee engagement in this study as presented in Table 3.5.

Respondents were asked to indicate their agreement or disagreement with the statements in Table 3.8 on a seven-point Likert scale from 1=strongly disagree to 7=strongly disagree. The researcher believes that this measuring scale was effective for discovering the impact of employee engagement on organisational performance, and for assessing the moderating effects of employee engagement on the relationship between generic skills and organisational performance. The full details of this survey question will be discussed in Section 3.6.2 Questionnaire Design.
Table 3.5: Operationalised Measures for Employee Engagement

<table>
<thead>
<tr>
<th>Survey Items for the Employee Engagement Construct</th>
<th>Adapted from Tamkin (2005); The Gallup Organisation (2004); IES (2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engaged01</td>
<td>In general, to my knowledge, the employee engagement level in my organisation is high.</td>
</tr>
<tr>
<td>Engaged02</td>
<td>People in this organisation are highly involved and valued.</td>
</tr>
<tr>
<td>Engaged03</td>
<td>People in this organisation always put in a great deal of effort and accept any types of assignments.</td>
</tr>
<tr>
<td>Engaged04</td>
<td>People in this organisation know what is expected from them.</td>
</tr>
<tr>
<td>Engaged05</td>
<td>People in this organisation understand that they have opportunities at work to learn and grow.</td>
</tr>
<tr>
<td>Engaged06</td>
<td>People in this organisation receive recognition and encouragement for doing good work.</td>
</tr>
<tr>
<td>Engaged07</td>
<td>People in this organisation know that their managers, colleagues and the senior management team care about them and willing to offer them support.</td>
</tr>
<tr>
<td>Engaged08</td>
<td>People in this organisation know that their opinions always count and they frequently make suggestions to improve organisation's products and services.</td>
</tr>
</tbody>
</table>

*Source: Developed for this study*

### 3.6.1.3 Operationalised Measures for Organisational Performance

Various types of organisational performance measures were discussed in Chapter Two. Previous empirical studies on organisational performance used either financial (e.g. sales growth, return on investment, earning per share etc.) or non-financial (e.g. customer satisfaction, product quality, new product introduction etc.) indicators with objective or subjective measures, or utilised multiple indicators and measures in combination. Richard *et al.* (2009) suggest that performance measures should not be made specific to the research question but should be sufficiently robust to cover the domain of organisational performance.

In this study, organisational performance was the dependent variable. The researcher attempted to measure organisational performance by utilising a composite approach with quasi-objective measures of financial performance, and subjective measures of non-financial performance. As discussed in Section 2.5.2.2, company financial performance data can be obtained through self-report techniques, such as quasi-objective measures (Richard *et al.* 2009). The researcher chose this measuring method because she contends that the information provided by the respondents is highly accurate, as they are in high-level decision making positions in their organisations, and because they utilised company financial data for strategic planning and budgeting. Thus, they can be thought of as representatives of the
organisation and as providing accurate answers. This argument is supported by Wall et al. (2004); Winter (2003); and Venkatraman and Ramanujam (1986) as discussed in Section 2.5.2.2. The items used to measure financial performance were adopted from Richard et al. (2009) and Venkatraman and Ramanujam (1986) as shown in Table 3.6. The respondents were asked to assess their companies’ sales growth and ROI (Return on Investment) on an ordinal scale and the financial performance variable (a composite variable of sales growth and ROI) have displayed high reliability with a Cronbach’s Alpha of 0.83.

**Table 3.6: Operationalised Measures for Financial Performance**

<table>
<thead>
<tr>
<th>Survey Items for the Organisational Performance Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adapted from Mia et al. 2011; Hubbard 2009; Richard et al. (2009); Venkatraman &amp; Ramanujam (1986)</strong></td>
</tr>
<tr>
<td>FinancialPer01</td>
</tr>
<tr>
<td>FinancialPer02</td>
</tr>
<tr>
<td>MarketPer01</td>
</tr>
<tr>
<td>MarketPer02</td>
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<tr>
<td>MarketPer03</td>
</tr>
</tbody>
</table>

*Source: Developed for this study*

Non-financial performance was measured using subjective measurements, where respondents were asked to rate their organisations’ overall market performances on a seven-point Likert scale from 1= far below average to 7= more than above average. As shown in Table 3.9, the three items adapted from Mia et al. (2011) and Hubbard (2009) were appropriate for subjective non-financial performance measures since the finance and insurance industry is highly customer service-orientated and driven by competitive and innovative products and services. Although some scholars argue that cognitive bias can influence subjective measures as respondents tend to view themselves positively, scholars such as Wall et al. (2004) found that there is empirical evidence suggesting subjective measures display consistently high levels of discriminant validity, moderate convergent validity and strong construct validity. A reliability test also confirmed that the subjective measures for non-financial performance used in this study are reliable (Cronbach’s Alpha =0.73), the reliability test results for each variable are presented in Chapter Four. The survey questions for organisational performance will be discussed in the next section.
3.6.2 Questionnaire Design

Questionnaire design is one of the most critical stages in the survey research process (Zikmund 2003, p.330) and is the first practical step of most studies (Kumar 1998). The objective of questionnaire design is to ensure the relevance and accuracy of the questionnaire to achieving the researcher’s purpose (Zikmund 2003). Further, the development of a survey is strongly influenced by the nature of the research questions and the research objectives (Zikmund 2003). Therefore, the research instrument (survey) should incorporate questions to allow issues to be examined and hypotheses tested.

The objective of this study is to investigate the impact of generic skills on organisational performance, and to examine whether employee engagement can intensify the effects of generic skills on organisational performance. In order to attain this objective, the relationship between generic skills and organisational performance needs to be established first, and then the moderating effects of employee engagement need to be tested. A questionnaire developed by the researcher is utilised as a research instrument to survey the relationship between generic skills and organisational performance and the moderating effects of employee engagement. The questionnaire had four sections and consisted of fifteen questions. Questions 1 to 10 were designed to obtain information on the significance of different types of generic skills on business performance/success, employee engagement and organisational performance in finance and insurance institutions, while questions 11–15 capture general company information and information on the respondents’ profiles.

The structure of the survey questionnaire was set up as follows:

1. **Section 1** includes general introduction, explains the purpose of the survey and how long it would take.
2. **Section 2** assesses the significance of different types of generic skills on organisational performance.
3. **Section 3** assesses employment engagement level by utilising a rating-by-managers approach.
4. **Section 4** captures organisational performance including financial and non-financial information.
5. **Section 5** captures information on the organisational and respondent profiles.

The researcher has followed on the following guidelines suggested by Davie (1996) and Fowler (1993) to ensure the relevancy and accuracy of the questionnaire:

- Item wording should be clear, unambiguous, and easily understood by the respondent in order to ensure error-free data is collected.
- Response format should be appropriate for the survey such as the use of scales.
- The questionnaire should start with simple and interesting questions, provide clear and easy-to-read instructions, ask sensitive and classificatory information last, and consider the flow of the questioning process.
- The questionnaire should be pretested on a set of respondents who are similar to the final study respondents. This is an iterative process where the questionnaire is further refined from problems identified and actions taken to correct it.

Questions one to four (Section 2) are designed to discover the significance/importance of the key elements (42 items in total) of interpersonal skills (communication, teamwork and customer service skills included in the interpersonal skills category – 16 items); cognitive skills (problem solving and learning skills included in the cognitive skills category – 10 items); planning and organising skills (5 items); self-management skills (5 items); and initiative and enterprise skills (6 items). Respondents were asked to indicate the extent to which the specified key elements of generic skills influence their organisational performance and/or contributed to their organisations’ successes. An example of Question One is provided below for illustration.

1. To what extent do the following elements of your employees’ **interpersonal skills** contribute to your organisation’s success/influence the performance of your organisation?

Note: The Interpersonal skills category includes communication skills (items 1–5), teamwork skills (items 6–11) and customer service skills (items 12–16).
<table>
<thead>
<tr>
<th>Communication Skills</th>
<th>Most Insignificant</th>
<th>Slightly Insignificant</th>
<th>Neutral</th>
<th>Slightly Significant</th>
<th>Significant</th>
<th>Very Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Listening and understanding effectively</td>
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<td>2. Speaking clearly and directly in any situations, effectively communicate verbally and non-verbally</td>
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<td>3. Negotiating responsively and ability to influence</td>
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<tr>
<td>4. Writing to the needs of the audience (e.g. Customers and internal stakeholders) and using numeracy effectively</td>
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<td>5. Have strong ability to exchange opinions/information effectively</td>
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<tr>
<td>Teamwork Skills</td>
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<tr>
<td>6. Working with people of different ages, gender, race, religion or political persuasion</td>
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<td>7. Working as an individual and as a member of a team</td>
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<tr>
<td>8. Knowing how to define a role as part of a team</td>
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<tr>
<td>9. Applying teamwork skills to a range of situations, e.g. futures planning, crisis problem solving</td>
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<tr>
<td>10. Identifying the strengths of team members</td>
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<td></td>
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<tr>
<td>11. Coaching, mentoring and giving feedback</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Customer Service Skills</td>
<td></td>
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</tr>
<tr>
<td>12. Understanding the needs of internal and external customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Listening effectively and process accurate information, be patient and provide quick response to customers</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>14. Build and maintain strong and long-term relationships with customers</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>15. Ability to solve problems and provide right solutions to suit different customers</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>16. Have excellent knowledge of company's products/services; and outstanding business etiquette and phone manner</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Source: Developed for this study*
A seven-point Likert scale was utilised to rate survey responses. The reason this study utilised a seven-point Likert scale was to allow respondents to express a diverse range of responses, while being balanced by a neutral mid-point with three positively and three negatively-worded labels (Zikmund 2003). Moreover, the researcher considered that an alternative answer was likely to vary somewhat in value. For example, the alternative answers’ significant’ and ‘slightly significant’ are different; ‘slightly significant’ is different from ‘very significant’, and so on. Further, as suggested by Zikmund (2003), an odd-point scale is preferred rather than an even-number point scale due to circumstances in which it is valid for respondents to adopt a neutral position. As a result, the following scaling method allows respondents’ views to be judged in accordance to the level of significance with respect to the construct of interest:

1= Most Insignificant  
2= Insignificant  
3= Slightly insignificant  
4= Neutral  
5= Slightly significant  
6= Significant  
7= Most significant

Section 3 only contained one question (Question 5) to assess employee engagement in the respondents’ organisation by utilising a rating-by-managers approach as discussed in Section 3.6.1. Respondents were asked to indicate the extent to which they agreed with the 13 statements which were used to indicate the engagement and motivation level of the people in their organisations. A seven-point Likert scale was also utilised to rate survey responses and to allow respondents to express a diverse range of responses, (where 1= Strongly disagree; 2= Disagree; 3= Trend to disagree; 4= Either agree or disagree; 5= Tender to agree; 6= Agree and 7= Strongly agree). An example of Question 5 is provided below for illustration.

Q5. In the view of the **employee engagement** level in your organisation, to what extent do you agree with the following statements?
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>disagree</th>
<th>Tend to disagree</th>
<th>Either agree or disagree</th>
<th>Agree</th>
<th>Tend to agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>In general, to my knowledge, the employee engagement level in my organisation is <strong>high</strong>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>People in this organisation are highly involved and valued.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>People in this organisation always put in a great deal of effort and accept any types of assignments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>People in this organisation know what is expected from them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>People in this organisation understand that they have opportunities at work to learn and grow.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>People in this organisation receive recognition and encouragement for doing good work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>People in this organisation know that their managers, colleagues and the senior management team care about them and willing to offer them support.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>People in this organisation know that their opinions are always count and they frequently make suggestions to improve the products/services our organisation offer.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Developed for this study

In order to establish the relationship between generic skills and organisational performance and to test the moderating effects of employee engagement, the financial performance and non-financial performance of survey samples will be measured as organisational performance in Section 4. The financial performance items used as objective measures in this study are 1) sales growth rate and 2) return on investment, as described in Section 3.6.1. For example, in Question 7, respondents were asked to indicate their sales growth rate using an ordinal scale. An example of Question 7 is provided below for illustration.
Q7. What is your organisation’s sales growth rate (%) in current financial year?

• <10%
• 10% to 20%
• 21% to 30%
• 31% to 40%
• 41% to 50%
• 51% to 60%
• 61% to 70%
• 71% to 80%
• 81% to 90%
• 91% to 100%
• >100%

Source: Developed for this study

On the other hand, the non-financial performance items used as subjective measures were 1) customer satisfaction 2) product/service quality and 3) innovation development (new products/services). As in Question 8, respondents were asked to indicate their overall performance for the three items by rating them using a seven-point Likert scale as follows:

Q8. Please indicate your organisation’s overall performance in the following areas

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Far below average</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below average</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slightly below average</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slightly above average</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above average</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than above average</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Developed for this study

Section 5 sought demographic information such as the respondent’s job title, industry sector (e.g. ADIs, non-ADIs, insurance) and the number of employees in the organisation. All the
demographic questions were placed at the end of the questionnaire as they were straightforward for respondents to answer.

In order to ensure the quality of the survey instrument, the questionnaire was pre-tested in a small number of pilot surveys before being officially administered online. The reason for this was to test the feasibility and appropriateness of the questionnaire (Punch 1998) and to ensure respondents’ understanding of the survey items. The details of the pilot test are fully discussed in Section 3.6.3.

3.6.3 Pilot Survey

The main objectives for the pilot study were to evaluate the psychometric properties of the survey scales and examine the practicality of the questionnaire administration (Forza, 2002). Pilot studies collect data from a small population of the research project to serve as a guide for the larger study (Zikmund 2003, p.63), which usually involves 15 to 30 people from the samples to evaluate questionnaire items and help in devising the final wording of questions (Judd 1992 & 2000; Warwick & Lininger 1975) and identify and eliminate potential problems. Pilot surveys also provide an opportunity to interact with respondents to determine whether the questionnaire creates a positive impression that motivates people to answer and the pilot survey produces information and insights that might not be accessible without the dialogue session between the researcher and the respondents (Aldridge & Levine 2001).

In essence, a pilot survey demonstrates that making a mistake with a small population and correcting that mistake could avert the disaster of administering an invalid questionnaire to hundreds of individuals (Chong 2006, p.146). For this research, a sample of 15 people was randomly selected from the population for the pilot tests. Firstly, the potential respondents were contacted and invited by the researcher to participate in the pilot surveys. Secondly, 15 pilot surveys were sent out and the researcher was able to obtain all the completed surveys within five working days. Lastly, the researcher conducted phone interviews with the pilot survey respondents after the day they completed the online pilot surveys. The respondents were asked to indicate any areas of difficulty they experienced in responding to the survey questions, and/or to suggest any areas of confusion or problems that arose for them. The researcher adapted the following questions from Czaja (1998, p.12) to obtain respondents’
feedback for the pilot survey. These questions constitute part of the rating form to provide a systematic quantifiable method of identifying problems in the survey instrument adopted.

1. Did you have any difficulty reading the question exactly as worded?
2. Does the question contain words or concepts that you do not understand?
3. Do you have difficulty retrieving information or providing an answer to the question?

The majority of the respondents agreed that the survey questionnaire was simple, understandable and in plain English. They did not have any difficulties in reading the questions exactly as worded. They indicated that they were interested in the survey topic and they were keen to know about the survey results in the near future. They also indicated they did not have difficulty retrieving information or providing answer to the questions and they agreed that most senior managers/executives have the right knowledge to answer the questions in regards to employees’ generic skill competencies, employee engagement levels and company performance information.

Some of the pilot survey respondents suggested that the survey invitations should be sent out before 9 am as the possibility for them to answer the survey during their breakfast/morning tea breaks will be greater, as their awareness of the survey would be higher in the morning before they started their usual busy working days. Finally, they indicated that the survey took them approximately 15 to 20 minutes to complete, which was acceptable. The pilot survey was also reviewed by a group of senior researchers to test content validity. When the pilot surveys were completed, the researcher made some minor changes to the questions based on her supervisor’s suggestions before finalising the questionnaire. The pilot survey results were also uploaded in researcher's statistical analysis software (SPSS) in order to test the reliability for all research variables in this study.

3.6.4 Reliability and Validity

One of the key aims of the pilot study was to assist the researcher in considering the issues of reliability and validity because they are the most important determinants of the quality of the instrument and the credibility of the research results (Zikmund 2003; Ticehurst & Veal 2000).
Reliability and validity are concerned with how concrete measures, or indicators, are developed for the construct (Hussey & Hussey 1997). Generally, reliability refers to the extent to which the measure is free from error and consistent across time and across the various items in the instrument (Cavana et al. 2001). To determine the reliability of a test, several methods are used: Cronbach’s co-efficient alpha, test and re-test reliability and internal consistency reliability (May 2001; Lee 1993; Hakim 1992 & 2000). Validity, on the other hand, deals with ‘the issue of the authenticity of the cause and effect relationships (internal validity), and their generalisability to the external environment (external validity)’ (Cavana et al. p. 212).

In this study, an analysis of reliability measures was conducted as part of the pilot study process. According to Chong (2006, p.151-152), Cronbach’s coefficient alpha has an important use in measuring the reliability of a psychometric instrument and this technique is used to assess the extent to which a set of test items can be treated as measuring a single latent variable. The value of coefficient alpha ranges from 0 (no reliability) to 1 (perfect reliability) (Cronbach 1951). In most research, values above a cut-off value of 0.70 are considered as indicating ‘acceptable’ reliability (Nunnally & Bernstein 1960). Hair et al. (1995) also suggest that if the alpha values are close to 0.7 (e.g. 0.65), they can still be accepted as acceptable reliability. The analysis of the reliability of variables in the pilot study suggests that all variables achieved or are above an acceptable level of reliability (above 0.7). Content validity tests were also performed during the pilot study process by having experienced knowledgeable people (e.g. the researcher’s supervisor and a group of five senior researchers) to look at the test items and make judgements about the appropriateness of each item and overall coverage of the domain. As mentioned in the last section, only minor wording changes were suggested, which were incorporated into the survey questions. A full discussion of the reliability of survey results is presented in Chapter Four.
3.7 Statistical Methods for Data Analysis

The objective of Section 3.7 is to provide details of techniques used for statistical analysis for this study.

Generally, the process of data analysis begins after the data have been collected. Prior to the data editing, coding and analysing processes, researchers must record the number of questionnaires returned and the date of return. In addition, sight-editing to check for legibility, completeness, consistency and accuracy, and for the presence of ambiguities, is recommended (Sekaran 2000; Zikmund 2000; Alreck & Settle 1995; Burns & Bush 1995). All statistical analyses conducted in this study used the Statistical Package for the Social Sciences (SPSS) program version 17.0. There are several statistical techniques applied in this study, for example: factor analysis, correlation analysis and multiple regression analysis as discussed below.

3.7.1 Factor Analysis

Factor analysis is used to analyse interrelationships among a large number of variables and to explain these variables in terms of their common underlying dimensions that are each linearly related to the original variables. In this study, Principal Components Analysis (PCA) of factor analysis was used to verify the dimensionality of the independent, moderating and dependent variables by utilising varimax rotation. According to Hair et al. (1998), varimax rotation has the ability to produce solutions which identify each variable with a single factor and when a single factor solution is reported with an eigenvalue greater than 1, it is considered that a valid factor exists. If a set of factors accounts for at least 60% of the shared variation of the research variables, then these factors would be accepted (Guttman et al. 1971). In other words, principal components analysis (PCA) allowed the researcher to identify how many underlying dimensions appear to be represented in the responses to the items in her questionnaire (Manning & Munro 2007). At the end of each principal components analysis, a composite variable (also called a ‘summated scale’) was created in order to represent the key concept of the single factor. The factor analysis results of the independent, moderating and dependent variables are presented in Chapter Four: Data analysis and review of empirical evidence.
3.7.2 Correlation Coefficients

The key objective of this study is to investigate the relationship between generic skills and organisational performance. The analysis of the relationships between two or more variables can be accomplished through correlation analysis. A correlation co-efficient is a single number measure of the strength of association between two variables. The direction of a correlation co-efficient can be positive, zero or negative. A positive correlation means that as the value for one measure increases, the values for the other measure also increases. A zero correlation indicates there is no relationship between the two variables and a negative correlation means that as values for one measure increase the value for the other measure decreases (Chong 2006, p.154). There are various types of correlation coefficients for different purposes, such as Pearson’s ‘r’ and Spearman’s ‘rs’ (Tabachnick & Fidell 2001). In this study, Pearson product-moment correlation (Pearson r) was used to analyse the relationships between different types of generic skills and non-financial performance (market performance) as the data collected for non-financial performance was measured using an interval scale, whereas Spearman’s rank-order correlation (Spearman’s rho) was used to analyse the relationship between generic skills and financial performance, since sales growth and ROI were measured in an ordinal scale.

In this study, key focused was in whether there are significant relationships between specific generic skills and organisational performance. As a result, correlation analysis was chosen to test the relationships between specific types of generic skills and organisational performance, instead of using the regression method which produces a single equation to estimate the unique contribution to prediction of each of the independent variables (Manning & Munro 2007). A three-step hierarchical regression analysis was applied to examine the moderating and interaction effects of employee engagement on the relationship between generic skills and organisational performance, as described in the following section.

3.7.3 Multiple Regression analysis

Multiple regression analysis is a statistical technique that allows researchers to examine the relationships between two or more independent variables and a dependent variable. It can
determine a linear relationship between variables that can be used in prediction and explanation.

This study utilised a three-step hierarchical multiple linear regression method to examine the differences with respect to main effects, moderating direct effects and interaction effects. For example, the first step consisted of the independent variable (e.g. interpersonal skills) in the equation to test for a direct relationship between generic skills and organisational performance. Employee engagement (moderating variable) was introduced into the regression equation in the second step in order to test the moderating effects on organisational performance, and finally the third step of the analysis was to test the interactive effects between the moderator (employee engagement) and the independent variable (e.g. interpersonal skills) with organisational performance as the dependent variable. The full details of the hierarchical regression analysis for this study will be presented in Chapter Four.

3.8 Ethical Issues

Carrying out research in an ethical way is a critical element of the research process (McMurray 2010, p.93). Cooper and Schindler (1998) state that research must be designed to ensure that the respondent does not suffer any physical harm, discomfort, pain, embarrassment, or loss of privacy. The proposal for this research was submitted to the SCU Human Research Ethics Committee (HREC) for approval. The approval was granted on 22nd March 2012 with the approval number is ECN-12-064. Survey recruitment for participations commenced after receipt of the approval from HREC, and the process was completed on 11th April 2012. The online survey commenced on 16th April 2012 and closed on 11th June 2012.

As discussed in Section 3.5.3.1, the risk level to the participants in this research is negligible as they are only required to complete an anonymous survey online. This research does not lead to harm, discomfort and/or inconvenience for participants or others, such as physical harm, psychological harm, devaluation of personal worth, social harm, economic harm or legal harm. The participants do not need to travel to participate in the research, and only about 20–25 minutes of their time was required to complete the survey online. Their
anonymity, privacy, confidentiality and security of data/information were protected by the researcher and the university, as described in Section 3.5.3.

The researcher and her assistants informed participants of the purpose of this research with honesty, and the design of the questionnaire avoided any physical, emotional or cultural sensitivity or harm to the participants. The researcher (and assistants) ensured that all participants understood the reason for the research. Confidentiality and privacy were assured by the researcher and assistants who stressed that the results would not be presented in any format other than an aggregate set of results, reported in the research thesis and any subsequent publications, with there being no way of isolating or accessing individual responses. Lastly, the researcher and her supervisor were also available to answer any questions from the participants during the survey process. Further to conform to the university requirements, the research data and other relevant materials will be kept in a secure location for a period of seven years.

3.9 Conclusion

Chapter Three has examined the methodologies employed in this research and how they were used to collect data for investigation. The chapter provided details of the selection of, and justification for, using positivist approach based on quantitative research. The approaches to survey design, such as the selection of online surveys, sampling and selection process of survey participants of the top performing finance and insurance companies, questionnaire development and the survey administration procedures were discussed. The chapter also showed how the research was conducted rigorously by illustrating how to achieve reliability and validity. The data analysis techniques were described, and justified with the selection of factor analysis, correlation analysis and multiple regression analysis, based on the appropriateness of each method to examine the statistical relationship between generic skills and organisational performance, as well as the moderating effects of employee engagement. Finally, the ethical issues were also examined, as it is a critical element of the research process (McMurray 2010, p.93).
Chapter Four – Data Analysis and Review of Empirical Evidence

4.1 Introduction

The previous chapter provided details of the methodology and the data analysis strategy used in this research. The purpose of these methodologies is to ensure that there is sufficient evidence to draw valid conclusions in relation to the research problem (Barns 2002). This chapter presents survey results (descriptive analysis), the testing of hypotheses and the empirical evidence for this study (statistical analysis). Chapter Four consists of seven sections as shown in Figure 4.1.

Figure 4.1 Overall Structure of Chapter Four

Source: Developed for this research
4.2 Online Survey Response Rate

As noted in Chapter Three, 104 completed surveys were collected from 218 top performing finance and insurance institutions of the IBISWorld Top 2000 companies list (section 3.5.1), yielding a good response rate of 48%. In other words, 114 or 52% of people who were invited to participate in the online survey did not wish to do so. The survey respondents are busy senior executives/managers and so it was very challenging to persuade them to support this research, even though they agreed with the researcher that the research findings would benefit their companies. Some of them were unable, or found it hard, to commit 15-20 minutes to complete the survey.

All the returned questionnaire were 100% completed, which means there were no missing items and they were all usable responses. The online survey was administered probably during the busiest period of the year (between middle of April and middle of June), during which the senior executives/managers were mostly concentrating on the end of their financial year results reporting and the preparation of new budgets for the new financial year. This may have contributed to the response rate being lower than expected.

The researcher was aware that low response rate often reflects bias and some sub-groups are more likely to respond than others. During the final round of follow-up and reminder call processes, the researcher and her colleagues asked the respondents whether they had completed the survey or whether they would do so in order to identify the extent of non-response error. For those who answered ‘yes’, the researcher and her colleagues reminded them of the survey closing date, sent them another invitation (with the URL to access the online survey) and thanked them for their participation. Those indicated ‘no, I don’t think I will complete the questionnaire’, were asked to answer two simple questions in order to identify the non-respondents bias: 1) what industry sector do you work in? and 2) can you tell me the reason why you cannot participate in this research? Once again, respondents’ anonymity was assured by the researcher and her colleagues. (It is important to reinstate that, this research is original and independent. The three colleagues of the researcher were ONLY responsible for the recruitment of survey participants and making follow-up calls. They did not participate in other parts of this research, such as involve in generating research concepts, data analysis and thesis writing etc.)
Based on the answers given by the non-respondents, ‘too busy/lack of time to participate’ was the most common reason for not responding to the survey and no particular industry or sector was over-represented among non-respondents. As Chong (2007) suggests, a lower response rate is not a problem if the non-respondents are spread randomly among the population. Hence, the non-response bias for this study was treated as minimal. Finally, an important point to mention is that the researcher and her colleagues made more than 400 follow-up and new recruitment calls, and the researcher had sent more than 300 messages via email, LinkedIn and post so as to secure this level of response.

### 4.3 Respondent Characteristics

Survey data were collected from 104 respondents (n=104) of 218 top performing finance and insurance institutions in the IBISWorld Top 2000 companies list as described in Chapter Three and Section 4.2. A profile of the 104 respondents is presented in Table 4.1, which shows the frequencies and percentages of respondents’ 1) industry sector, 2) position title, 3) education level, 4) length of service and 5) company size.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industry Sector</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authorised deposit-taking institutions (ADIs)</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td>Non-ADI (authorised deposit-taking) financial institutions</td>
<td>37</td>
<td>35.6</td>
</tr>
<tr>
<td>Insurers and fund managers</td>
<td>41</td>
<td>39.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>104</td>
<td>100</td>
</tr>
<tr>
<td><strong>Position Title</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chief executive officer/managing director</td>
<td>6</td>
<td>5.8</td>
</tr>
<tr>
<td>Senior executive</td>
<td>30</td>
<td>28.8</td>
</tr>
<tr>
<td>General manager</td>
<td>38</td>
<td>36.5</td>
</tr>
<tr>
<td>Senior manager</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>Senior professional</td>
<td>5</td>
<td>4.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>104</td>
<td>100</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 12</td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td>Certificate/Diploma</td>
<td>14</td>
<td>13.5</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>56</td>
<td>53.8</td>
</tr>
<tr>
<td>Master degree</td>
<td>30</td>
<td>28.8</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>104</td>
<td>100</td>
</tr>
<tr>
<td><strong>Length of Service</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>3</td>
<td>2.9</td>
</tr>
<tr>
<td>Length of Service</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>-------------------</td>
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<td>------------</td>
</tr>
<tr>
<td>1 to &lt;5 years</td>
<td>24</td>
<td>23.1</td>
</tr>
<tr>
<td>5 to &lt;10 years</td>
<td>36</td>
<td>34.6</td>
</tr>
<tr>
<td>10&lt;15 years</td>
<td>37</td>
<td>35.6</td>
</tr>
<tr>
<td>15 to 20 years</td>
<td>3</td>
<td>2.9</td>
</tr>
<tr>
<td>20 or more years</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>104</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Size</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 100 employees</td>
<td>14</td>
<td>13.5</td>
</tr>
<tr>
<td>101-400 employees</td>
<td>24</td>
<td>23.1</td>
</tr>
<tr>
<td>401-700 employees</td>
<td>22</td>
<td>21.2</td>
</tr>
<tr>
<td>701-1,000 employees</td>
<td>8</td>
<td>7.7</td>
</tr>
<tr>
<td>1,001-1,400 employees</td>
<td>6</td>
<td>5.8</td>
</tr>
<tr>
<td>1,401-1,700 employees</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>1,701-2,000 employees</td>
<td>5</td>
<td>4.8</td>
</tr>
<tr>
<td>Above 2,000 employees</td>
<td>13</td>
<td>12.5</td>
</tr>
<tr>
<td>Above 5,000 employees</td>
<td>3</td>
<td>2.9</td>
</tr>
<tr>
<td>Above 10,000 employees</td>
<td>4</td>
<td>3.8</td>
</tr>
<tr>
<td>Above 30,000 employees</td>
<td>4</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>104</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Developed for this research (from survey results)

### 4.3.1 Industry Sectors

In Question 13 of the online survey, the respondents were asked to indicate which part of the finance and insurance sector they worked in. The distribution of responses by industry sector is shown in Table 4.1 and Figure 4.2. Of the 104 respondents, 41 (39.4%) worked in the insurance and fund managers sector; 37 (35.6%) in the non-ADI (authorised deposit-taking) financial institutions sector; and 26 (25%) in authorised deposit-taking institutions (ADIs) sector.

**Figure 4.2: Which of the following finance and insurance sector do you work in?**

Source: Developed for this research (from survey results)
The results suggest that most of the top performing companies in the Australian finance and insurance industry were insurance and fund managers (e.g. general insurance and superannuation), followed by the non-authorised deposit-taking financial institutions (e.g. finance companies and securitisers) and the authorised deposit-taking institutions (e.g. national and foreign banks etc.). The results were also consistent with government statistics (Austrade 2010, RBA 2011) and a range of market intelligence such as IBISWorld Company and Industry Research and Dun and Bradstreet.

**4.3.2 Position Title**

As mentioned in Chapter Three, a purposive sampling technique was adopted for this research, where only the senior executives/managers of the Australian finance and insurance companies listed in the IBIS World Top 2,000 companies list were expected to participate in this research, as they were expected to have a thorough understanding and deep knowledge of their employees’ generic skill competencies, employee engagement levels and their companies’ performance information. In Question 11 of the questionnaire, the respondents were asked to describe the job title they are currently holding in their organisation. As shown in Table 4.1 and Figure 4.3, of the total 104 responses, there 6 (5.8%) chief executive officers/managing directors participated in the survey; 30 (28.8%) were senior executives; 38 (36.5%) were general managers; 25 (24%) were senior managers; and 5 (4.8%) were senior professionals.

**Figure 4.3: Which of the following best describes the position you hold in your organisation?**

![Pie chart showing percentages of different position titles](chart.png)

*Source: Developed for this research (from survey results)*
The results suggest that senior executives/managers are the best ‘informants’ for the survey research, especially firm-level studies, since they are in high-level decision-making roles in their organisations; have a strong understanding and knowledge of their staff and how their organisations performed. The respondents of this research did not miss any questions and were all able to provide all the requested information the researcher needed for her study. The results also suggest that the majority of best ‘informants’ were general managers (36.5%), followed by senior executives (28.8%) and senior managers (24%).

4.3.3 Education Level

In Question 12 of the questionnaire, the respondents were asked to indicate their highest education level. As shown in Table 4.1 and Figure 4.4, of the 104 responses, two respondents (1.9%) had completed year 12 as their highest education level; 14 (13.5%) had a certificate/diploma; 26 (53.8%) a bachelor’s degree; 30 (28.8%) a master’s degree; and 2 (1.9%) a doctoral degree. The results suggest that respondents who were highly educated were more willing to participate in and support a new research study. They also demonstrated a better understanding of business terms, definitions (e.g. types of generic skills and employee engagement) and of the interpretation of the questionnaire without skipping any questions, or requesting any clarifications from the researcher and her supervisor. The survey found that the majority of senior executives/managers in the Australian finance and insurance industry are highly educated and obtained higher education qualifications such as bachelor’s degrees (53.8%) and master’s degrees (28.8%).

Figure 4.4: What is your highest educational level achieved?

Source: Developed for this research (from survey results)
4.3.4 Length of Service

In Question 10 of the questionnaire, the respondents were asked ‘how long have you been with this company?’ As shown in Table 4.1 and Figure 4.5, of the total 104 responses, there were 3 (2.9%) respondents who had worked less than a year in their organisations; 24 (23.1%) for 1 year to less than 5 years; 36 (34.6%) for 5 to less than 10 years; 37 (35.6%) for 10 less than 15 years; 3 (2.9%) for 15 to 20 years; and 1 (1%) for 20 or more years. Similar to the suggestion in Section 4.3.2, the results suggest the majority of respondents (70.2%) had worked in their organisations for over five years, and they were familiar and knowledgeable about the operation of their organisations as they were involved in most of their organisations’ strategic activities. As a result, they were able to provide relevant, accurate and knowledgeable answers to the questionnaire.

Figure 4.5: How long have you been with this company?

Source: Developed for this research (from survey results)

4.3.5 Company Size

In Question 14 of the questionnaire, the respondents were asked to indicate the size of their organisations. As shown in Table 4.1 and Figure 4.6, of the total 104 responses, there were 14 (13.5%) respondents who worked in an organisation with less than 100 employees; 24 (23.1%) with 101–400 employees; 22 (21.2%) with 401–700 employees; 8 (7.7%) with 701–1,000 employees; 6 (5.8%) with 1,001–1,400 employees; 1 (1%) with 1,401–1,700 employees; 5 (4.8%) with 1,701–2,000 employees; 13 (12.5%) with more than 5,000 employees; 4 (3.8%) with more than 10,000 employees; and 4 (3.8%) with more than 30,000...
employees. The results suggest that the majority of top performing finance and insurance institutions in Australia were medium and large organisations.

**Figure 4.6: Approximately, how many employees does your organisation have?**

![Bar chart showing the number of employees per organisation size]

*Source: Developed for this research (from survey results)*

### 4.4 Analysing the responses to variables

In this study, senior executives/managers of top performing finance and insurance companies were asked to evaluate the contributions of generic skills to their organisations’ successes; to rate the degree of their agreement to statements about employee engagement levels in their organisations; and to provide information to indicate their organisations’ performance.

#### 4.4.1 Independent Variables: Generic Skills

As discussed in Chapter Two, the independent variables of this research are communication, teamwork, customer service, problem solving, learning, planning and organising, self-management and initiative and enterprise. In the questionnaire, respondents were asked to indicate the extent to which the specified key elements of generic skills influenced their organisational performance and/or contributed to their organisations’ successes. A seven-point Likert Scale (1= most insignificant, 2= insignificant, 3= slightly insignificant, 4= neutral, 5= slightly significant, 6= significant, 7= mostly significant) was used to provide
answers to these questions. Tables 4.2a to 4.2h display the results with mean scores and standard deviations for Questions 1-5.

Table 4.2a presents means of perceived impacts of communication skills on organisational performance. Among the communication skills measures, respondents rated every skill element highly for this question. Responses about the most significant communication skills elements exhibited ranged from a mean of 5.85 to 6.02 on a seven-point scale. The range of difference of means for the communication skills construct is 0.17 (6.02-5.85) and the average mean of the communication skills construct is around 5.9.

Table 4.2a: Perceptions towards contribution of communication skills on organisational success/performance

<table>
<thead>
<tr>
<th>Communication Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Listening and understanding effectively</td>
<td>5.85</td>
<td>0.86</td>
</tr>
<tr>
<td>2. Speaking clearly and directly in any situations, effectively communicate verbally and non-verbally</td>
<td>5.77</td>
<td>0.84</td>
</tr>
<tr>
<td>3. Negotiating responsively and ability to influence</td>
<td>5.92</td>
<td>0.78</td>
</tr>
<tr>
<td>4. Writing to the needs of the audiences (e.g. Customers and internal stakeholders) and using numeracy effectively</td>
<td>6.02</td>
<td>0.70</td>
</tr>
<tr>
<td>5. Have strong ability to exchange opinions/information effectively; and outstanding business etiquette and phone manner</td>
<td>5.94</td>
<td>0.76</td>
</tr>
</tbody>
</table>

Source: Developed for this research (from survey results)

Among the five communication skills elements, a mean of 6.02 in item 4 shows that many respondents indicated that writing to the needs of the audiences (e.g. customers and internal stakeholders) and using numeracy effectively contributed to their business success/performance significantly. Speaking clearly and directly in all situations, effectively communicating verbally and non-verbally (mean=5.77) were the least influential components of the communication skills construct. The results might implicate that structural changes, and the growing complexity and diversity of services and products being provided in the industry have contributed to the increased requirements for writing skills (DEST 2006). On the other hand, using numeracy effectively is also an essential requirement for employees to perform their jobs, not only in the finance and insurance industry or top performing enterprises, but across all industry sectors and company types. This is supported by other
descriptive evidence such as the UK employer skills survey (2011 & 2010) and the Australian skills gaps survey (2012).

Overall, the results indicate all five communication skills elements were highly valued by respondents’ organisations, suggesting finance and insurance employees are required to have good communication skills (verbal and written) to interact with clients as well as staff effectively, as those skills are as centralised importance for an interactive service industry (Yang & Kankanhalli 2012; Philippon & Reshef 2007; Warhurst et al. 2001; Johnson 1995), such as finance and insurance.

In Table 4.2b, item 9 (mean 5.09) suggests that respondents rated highly the application of teamwork to a range of situations, such as future planning and crisis problem solving. This reflects that ‘solo’ performance is no longer good enough, particularly when dealing with critical situations. As stated by Field and Mawer (1996), effective teamwork relies on having an appreciation of what each team member can offer – their knowledge, skills, experience, networks and insights can contribute to business outcomes. Overall, respondents rated lower in item 7 (mean=4.34), item 10 (mean=4.34) and item 11 (mean=4.28). This illustrates that senior executives/managers in top performing finance and insurance organisations generally perceived that these skills were important, but they did not significantly contribute to business success/performance. All the respondents rated relatively low in item 6 (mean=3.23) and item 8 (mean=3.94). This suggests that these teamwork skills elements are possibly not related to business outcomes.

<table>
<thead>
<tr>
<th>Teamwork Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Working with people of different ages, gender, race, religion or political persuasion</td>
<td>3.23</td>
<td>1.44</td>
</tr>
<tr>
<td>7. Working as an individual and as a member of a team</td>
<td>4.34</td>
<td>1.21</td>
</tr>
<tr>
<td>8. Knowing how to define a role as part of a team</td>
<td>3.94</td>
<td>1.12</td>
</tr>
<tr>
<td>9. Applying teamwork skills to a range of situations, e.g. future planning, crisis problem solving</td>
<td>5.09</td>
<td>0.86</td>
</tr>
<tr>
<td>10. Identifying the strengths of team members</td>
<td>4.34</td>
<td>1.14</td>
</tr>
<tr>
<td>11. Coaching, mentoring and giving feedback</td>
<td>4.28</td>
<td>1.12</td>
</tr>
</tbody>
</table>

*Source: Developed for this research (from survey results)*
As shown in Table 4.2c, generally speaking, respondents rated all customer service skills elements highly (mean>6.0). This shows that customer service skills are important in top performing finance and insurance companies. Item 14 (mean=6.54) suggests that building and maintaining strong and long-term relationships with customers had a strong positive impact on organisational performance and contributed to business success. There were also strong ratings for ability to solve problems and provide right solutions to suit different customers (mean=6.47); understanding the needs of internal and external customers (mean=6.4); have excellent knowledge of company’s products/services (mean=6.39); and listening effectively and process accurate information, be patient and provide quick response to customers (mean=6.31). Overall, the results suggest top performing finance and insurance companies are highly customer driven.

Table 4.2c: Perceptions of contribution of customer service skills

<table>
<thead>
<tr>
<th>Customer Service</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Understanding the needs of internal and external customers</td>
<td>6.40</td>
<td>0.75</td>
</tr>
<tr>
<td>13. Listening effectively and process accurate information, be patient and provide quick response to customers</td>
<td>6.31</td>
<td>0.61</td>
</tr>
<tr>
<td>14. Build and maintain strong and long-term relationships with customers</td>
<td>6.54</td>
<td>0.55</td>
</tr>
<tr>
<td>15. Ability to solve problems and provide right solutions to suit different customers</td>
<td>6.47</td>
<td>0.62</td>
</tr>
<tr>
<td>16. Have excellent knowledge of company's products/services</td>
<td>6.39</td>
<td>0.69</td>
</tr>
</tbody>
</table>

Source: Developed for this research (from survey results)

Item 5 in Table 4.2d suggest that applying problem-solving strategies across a range of areas has a strong influence on organisational performance/business success. Generally, respondents also rated all skill elements in the problem solving skills construct highly. This result is consistent with Field and Mawer (1996), who found that in high performance workplaces there is a constant focus on solving problems in order to achieve overriding goals like customer service and quality. Respondents also rated showing independence and initiative in identifying and solving problems highly (mean= 5.52), and solving problems in team also had a high mean of 5.44. This is associated with item 9 in the teamwork skills construct. The high rating for developing creative, innovative and practical solutions (mean= 5.3) also suggests that the finance and insurance industry is ‘highly innovative’.
Table 4.2d: Perceptions towards contribution of problem solving skills

<table>
<thead>
<tr>
<th>Problem Solving</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Developing creative, innovative and practical solutions</td>
<td>5.30</td>
<td>0.76</td>
</tr>
<tr>
<td>18. Showing independence and initiative in identifying problems and solving them</td>
<td>5.52</td>
<td>0.72</td>
</tr>
<tr>
<td>19. Solving problems in teams</td>
<td>5.44</td>
<td>0.81</td>
</tr>
<tr>
<td>20. Applying problem-solving strategies across a range of areas</td>
<td>5.86</td>
<td>0.65</td>
</tr>
</tbody>
</table>

*Source: Developed for this research (from survey results)*

The Department of Education, Science and Training, DEST (2006, p. 26) suggests that learning contributes to ongoing improvement and expansion in employee and company operations and outcomes. Table 4.2e shows the mean scores in the learning skills construct. They range between 3.97 and 4.79. Item 25 (mean= 4.79) suggests respondents attached considerable importance to the need to learn in order to accommodate change as in item 21 (mean=4.62). This applied to learning related to both ‘technical’ issues and ‘people’ issues. These results are consistent with structural changes as growing complexity and diversity of services and products have influenced employees to learn more and apply new knowledge in their jobs. Respondents have rated item 23 (mean= 4.43) and item 24 (mean= 4.48) lower; and in item 22 (mean=4.23) and item 26 (mean=3.97) were relatively low.

Table 4.2e: Perceptions towards contribution of learning skills

<table>
<thead>
<tr>
<th>Learning</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Applying learning to ‘technical’ issues (e.g. learning about products) and ‘people’ issues (e.g. Interpersonal and cultural aspects of work)</td>
<td>4.62</td>
<td>0.96</td>
</tr>
<tr>
<td>22. Having enthusiasm for ongoing learning</td>
<td>4.23</td>
<td>1.13</td>
</tr>
<tr>
<td>23. Being willing to learn in any setting – on and off the job; and being prepared to invest time and effort in learning new skills</td>
<td>4.43</td>
<td>1.04</td>
</tr>
<tr>
<td>24. Being open to new ideas and techniques</td>
<td>4.48</td>
<td>0.95</td>
</tr>
<tr>
<td>25. Acknowledging the need to learn in order to accommodate change</td>
<td>4.79</td>
<td>0.96</td>
</tr>
<tr>
<td>26. Contributing to the learning community at the workplace</td>
<td>3.97</td>
<td>1.19</td>
</tr>
</tbody>
</table>

*Source: Developed for this research (from survey results)*

Table 4.2f shows mean scores for the planning and organising skills construct. All planning and organising skills elements (mean scores ranging from 5.34 to 5.40) were rated consistently and reasonably high. For instance, the high ratings for item 29 (mean=5.4)
‘establishing clear project goals and deliverables’; item 31 (mean=5.39) ‘participating in continuous improvement and planning processes; and item 28 (mean= 5.38) ‘adapting resource allocations to cope with contingencies’ all suggest they are perceived to have significant influences on business performance/success. This result is also associated with the research conducted by the Australian Chamber of Commerce and the Business Council of Australia (ACCI & BCA) in 2002, in which they suggests that planning and organising can contribute to long-term and short-term strategic planning.

Table 4.2f: Perceptions towards contribution of planning and organising skills

<table>
<thead>
<tr>
<th>Planning and Organising</th>
<th>Item</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>27. Managing time and priorities – setting timelines, coordinating tasks for self and with others</td>
<td>5.34</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td>28. Adapting resource allocations to cope with contingencies</td>
<td>5.38</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td>29. Establishing clear project goals and deliverables</td>
<td>5.40</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>30. Planning the use of resources including time management</td>
<td>5.35</td>
<td>0.64</td>
</tr>
<tr>
<td></td>
<td>31. Participating in continuous improvement and planning processes</td>
<td>5.39</td>
<td>0.70</td>
</tr>
</tbody>
</table>

*Source: Developed for this research (from survey results)*

Item 5 in Table 4.2g suggests a positive influence on business performance/success when employees take responsibility (mean=5.43) for their organisations. Respondents have not given high ratings for other skill elements in the self-management construct (between 4.22 and 4.46), which might possibly indicate that these skills – ‘having a personal vision and goals’; ‘evaluating and monitoring own performance’; ‘having knowledge and confidence in own ideas and vision’; and ‘articulating own ideas and vision’ are undervalued by the respondents, or that there is simply no relationship between self-management skills and organisational performance.
Table 4.2g: Perceptions towards contribution of self-management skills

<table>
<thead>
<tr>
<th>Planning and Organising</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>32. Having a personal vision and goals</td>
<td>4.22</td>
<td>0.99</td>
</tr>
<tr>
<td>33. Evaluating and monitoring own performance</td>
<td>4.29</td>
<td>1.00</td>
</tr>
<tr>
<td>34. Having knowledge and confidence in own ideas and vision</td>
<td>4.38</td>
<td>0.96</td>
</tr>
<tr>
<td>35. Articulating own ideas and vision</td>
<td>4.46</td>
<td>0.98</td>
</tr>
<tr>
<td>36. Taking responsibility</td>
<td>5.43</td>
<td>0.85</td>
</tr>
</tbody>
</table>

*Source: Developed for this research (from survey results)*

The mean scores of the final independent variable (initiative and enterprise skills) are shown in Table 4.2h. Overall, respondents have given reasonably high ratings to all initiative and enterprise skills elements (mean scores between 5.18 and 5.87). Item 40 (mean= 5.87) suggests top performing companies are proactive and exercise initiative as they identify opportunities which are not obvious to others. This could be regarded as one of their ‘key success’ factors. Item 41 (mean= 5.7) was also rated high as respondents perceived generating a range of options had an impact of their business performance/success. This result is also consistent with item 40 as the researcher believes that these two skills elements are key contributors to innovation and business growth. Respondents gave lower ratings to item 42 (mean= 5.57); item 39 (mean= 5.22); item 37 (mean=5.21) and item 38 (mean 5.18), but they were all perceived to have positive influences on organisational performance.

Table 4.2h: Perceptions towards contribution of initiative and enterprise skills

<table>
<thead>
<tr>
<th>Initiative and enterprise</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>37. Adapting to new situations (e.g. New merger, acquisitions)</td>
<td>5.21</td>
<td>0.85</td>
</tr>
<tr>
<td>38. Developing a strategic, creative, long-term vision</td>
<td>5.18</td>
<td>0.76</td>
</tr>
<tr>
<td>39. Being creative and innovative</td>
<td>5.22</td>
<td>0.81</td>
</tr>
<tr>
<td>40. Identifying opportunities not obvious to others</td>
<td>5.87</td>
<td>0.71</td>
</tr>
<tr>
<td>41. Generating a range of options</td>
<td>5.70</td>
<td>0.73</td>
</tr>
<tr>
<td>42. Translating ideas into action</td>
<td>5.57</td>
<td>0.79</td>
</tr>
</tbody>
</table>

*Source: Developed for this research (from survey results)*
4.4.2 Moderating Variable: Employee engagement

In this study, the second objective was to test whether employee engagement can intensify the effects of generic skills to achieve higher organisational performance. As a result, employee engagement was used as a moderating variable to test the moderating effects on the relationship between generic skills and organisational performance. In the questionnaire, respondents were asked to rate the degree of their agreement with eight statements about their perceptions of the employee engagement level in their organisations. A seven-point Likert Scale (1= strongly disagree, 2= disagree, 3= tend to disagree, 4= either agree or disagree, 5= tender to agree, 6= agree, 7= strongly agree) was utilised to expose answers to these statements. Tables 4.2 shows the results with mean scores and standard deviations for Question 6 of the questionnaire.

The strong mean of 5.62 in item 1 of Table 4.2 suggests that the employee engagement level in top performing companies is generally high. Item 2 (mean= 5.54) indicates that employees in top performing organisations are highly involved and valued. This suggests that employees are involved in decision-making; feel able to voice their ideas, and that manager listen to these views, and value employees’ contributions. Item 2 also indicates that employees in these organisations have opportunities to develop their jobs; and their organisation is concerned for their health and wellbeing. A study developed by IES (The Institute of Employment Studies) in 2003 indicates that a focus on increasing individuals’ perceptions of their involvement with, and value to, the organisation will pay dividends in increased engagement levels.

Respondents gave high ratings to item 6 (mean= 5.33) as they agreed that people in their organisations receive recognition and encouragement for doing good work. Responses for item 7 (mean= 5.27) suggest that employees in top performing organisations understand that their managers, colleagues and the senior management team care about them and are willing to offer them support. Responses to item 8 (mean= 5.22) indicate that employees’ opinions and suggestions to improve organisations products and services will also count. These results are associated with the findings of item 2 and prove that the strongest driver of engagement is feeling valued and involved, a finding which is supported by IES (2003).
Responses for item 4 (mean= 5.12) ‘people in this organisation know what is expected from them’; item 5 (mean= 5.11) ‘people in this organisation understand that they have opportunities at work to learn and grow’; and item 3 (mean= 5.08) ‘people in this organisation always put in a great deal of effort and accept any types of assignments’ had lower mean scores compared to the other items within the employee engagement construct. This might reflect that management in top performing organisations have higher expectations for their employees – that while they agree that their employees are doing good jobs, understand management’s expectations, and are keen to learn and put in good efforts, there is always have room to improve.

Table 4.2j: Perceptions towards employee engagement

<table>
<thead>
<tr>
<th>Employee Engagement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In general, to my knowledge, the employee engagement level in my organisation is high</td>
<td>5.62</td>
<td>1.07</td>
</tr>
<tr>
<td>2. People in this organisation are highly involved and valued</td>
<td>5.54</td>
<td>1.05</td>
</tr>
<tr>
<td>3. People in this organisation always put in a great deal of effort and accept any types of assignments</td>
<td>5.08</td>
<td>1.89</td>
</tr>
<tr>
<td>4. People in this organisation know what is expected from them</td>
<td>5.12</td>
<td>1.03</td>
</tr>
<tr>
<td>5. People in this organisation understand that they have opportunities at work to learn and grow</td>
<td>5.11</td>
<td>1.04</td>
</tr>
<tr>
<td>6. People in this organisation receive recognition and encouragement for doing good work</td>
<td>5.33</td>
<td>1.08</td>
</tr>
<tr>
<td>7. People in this organisation know that their managers, colleagues and the senior management team care about them and willing to offer them support</td>
<td>5.27</td>
<td>1.10</td>
</tr>
<tr>
<td>8. People in this organisation know that their opinions always count and they frequently make suggestions to improve organisation's products and services</td>
<td>5.22</td>
<td>1.07</td>
</tr>
</tbody>
</table>

*Source: Developed for this research (from survey results)*

### 4.4.3 Dependent Variable: Organisational Performance

A mentioned in Chapter Three, previous empirical studies on organisational performance have used either financial indicators (e.g. sales growth, return on investment, earning per share etc.) or non-financial (e.g. customer satisfaction, product quality, new product introduction etc.) indicators with objective or subjective measures or multiple indicators and measures of these in combination. In this study, organisational performance was the
dependent variable. The researcher measured organisational performance by using quasi-objective and subjective measures of financial and non-financial performances, as discussed in Chapter Three (Section 3.61).

There were three questions in the questionnaire to measure respondents’ organisational performance. Of these, two questions were objective measures designed to collect company financial information such as sales growth and return on investment. Since the respondents were senior executives/managers, they were expected to have a thorough knowledge of their company’s financial performance. Financial performance data for top performing organisations are often listed in the public domain, for example in company websites, annual reports and a range of market intelligence publications. As a result, there were no confidentiality issues involved and so respondents were not reluctant to release financial data. Respondents were asked to provide their actual sales growth rate and the percentage of return on investment on an ordinal scale (e.g. 1= <10%, 2= 10% to 20%, 3= 21% to 30% etc.). Respondents were also asked to rate their overall performance in terms of customer satisfaction, products/services quality and innovation development on a seven-point Likert scale (1= far below average, 2= below average, 3= slightly below average, 4= average, 5= slightly above average, 6= above average, 7= more than above average).

Descriptive statistics for the two performance measures (financial performance and market performance) are presented in Figures 4.7 and 4.8 and Table 4.2. Figure 4.7 shows the sales growth rates for top performing finance and insurance companies in Australia. Almost 35% of the respondents reported less than 10% growth in sales. This suggests that the finance and insurance industry might have been impacted by a range of economic and political forces as the survey was undertaken in 2012 and reflected the particular political and economic climate of the time, which involved global economic uncertainties, the European financial crisis and the slowdown of the Australian economy.

Companies with sales growth rates in excess of 100% made up 6.7% of total respondents. Based on further cross-tabulation analysis, it has found that top performing finance and insurance companies that had over 100% growth in sales were from insurance and fund managers sector. The result shows that the insurance and fund manager sector is a key contributor to Australia’s GDP and is one of the fastest growing industries in Australia. This
is also supported by Austrade (2010), Forbe (2011) and the IBIS World industry research (2011). Surveyed companies with sales growth rates of between 61% and 70% made up the smallest number of respondents (1.9%) and a total of 46.2% of respondents reported revenue growth rates of between 10% and 40%. Almost 10% of the respondents reported sales growth rates of between 41% and 70%, which was considered as the moderate to high growth category.

**Figure 4.7: What is your organisation’s sales growth rate (%) in current financial year?**

![Sales growth rate chart]

*Source: Developed for this research (from survey results)*

Figure 4.8 shows the percentage of return on investment for the surveyed companies. Among the respondents, 36.5% reported less than 10% of return on assets whilst 28.8% reported their return on investment was between 10% and 20%. Companies with between 61% and 80% returns made up the smallest number of respondents (2%); 18.3% had between 21% and 30% returns on assets and a total of 14.4% respondents reported their returns on assets were between 31% and 60% in the current financial year. Like the findings of the sales growth rate, return on investment might have been impacted by a range of economic and political forces as the survey was undertaken in 2012, which represented an unstable global political and economic climate.
Figure 4.8: What is your organisation’s return on investment (%) in current financial year?

Source: Developed for this research (from survey results)

Table 4.2k presents mean scores and standard deviations of perceived market performance. Respondents rated every market performance measure highly. Responses to the most outstanding market performance exhibited ranging from a mean of 6.29 to 5.98 on a seven-point Likert scale. The range difference of means for the market performance construct is 0.29 (6.27-5.98) and the average mean of the market performance variable is around 6.14.

Table 4.2k: Perceptions towards market performance

<table>
<thead>
<tr>
<th>Market Performance</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Customer Satisfaction</td>
<td>6.29</td>
<td>0.54</td>
</tr>
<tr>
<td>2. Products/Services Quality</td>
<td>6.17</td>
<td>0.47</td>
</tr>
<tr>
<td>3. Innovation Development (new products/services)</td>
<td>5.98</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Source: Developed for this research (from survey results)

Among the three market performance indicators, a mean of 6.29 in item 1 suggests that most top performing finance and insurance companies had high customer satisfaction. This is consistent with respondents’ high ratings of their employees’ customer service skills, where they perceived good customer service had contributed to business success. Descriptive evidence in Section 4.4.1 also suggests respondents’ companies are highly ‘customer driven’. As a result, customer satisfaction can be seen as one of the competitive advantages of top
performing finance and insurance companies. As a result, customer satisfaction can be seen as one of the competitive advantages of top performing finance and insurance companies.

Item 2 ‘products/service quality’ also had a strong mean of 6.17, suggesting that top performing finance and insurance companies have sophisticated continuous improvement and quality control systems in place to ensure high quality products and service excellence. This result is also consistent with the descriptive evidence in Section 4.4.1, where respondents gave high ratings to their employees’ contribution to participating in continuous improvement and planning processes.

A strong mean of 5.98 of item 3 suggests that top performing finance and insurance companies are ‘highly innovative’, in terms of new products and services development. The growing complexity and diversity of services and products being provided in the industry have been influenced by the structural changes to the economy. In other words, finance and insurance companies strive to satisfy the changing needs of customers and stakeholders, and compete against their domestic and foreign competitors by offering innovative products and services.

4.5 Goodness of Measures

Survey research is constantly being questioned over the quality of its measures (Ahmad et al. 2010). As a result, the researcher has used different statistical procedures – factor analysis and reliability testing to ensure the validity and reliability of the measures in this study. Factor analysis was utilised for the validation procedure to allow the researcher to see whether the reduced sets of items were similar to the concepts that were initially modelled (Ahmad et al. 2010). Reliability analysis was used once the variables were validated and then subjected to test for internal consistency.

4.5.1 Factor Analysis

In the present study, principal components analysis (PCA) of factor analysis was used to verify the dimensionality of the independent, moderating and dependent variables by utilising
varimax rotation. According to Hair et al. (1998), varimax rotation has the ability to produce solutions to identify each variable with a single factor as easily as possible, and when a single factor solution was reported with an eigenvalue greater than 1, it was considered that a valid factor existed. Statistically, if a set of factors accounts for at least 60% of the shared variation among the research variables, then these factors would be accepted (Guttman et al. 1971). In other words, principal components analysis (PCA) allowed the researcher to identify how many underlying dimensions appear to be represented in the responses to the items in her questionnaire (Manning & Munro 2007). At the end of each principal components analysis, a composite variable (also called a ‘summated scale’) was created to represent the key concept of the single factor. The factor analysis results of the independent, moderating and dependent variables are presented in the following sections.

4.5.1.1 Independent Variables: Generic Skills

As mentioned in Section 4.4.1, the independent variables of this research are communication, teamwork, customer service, problem solving, learning, planning and organising, self-management and initiative and enterprise. Eight factor analyses were conducted in order to identify the dimensions of the independent variables.

Communication Skills

A principal components analysis (PCA) followed by a varimax rotation, was conducted on the five items of the communication skills variable. Table 4.3 (1a) shows that all bivariate correlations between items were above .30 and so the correlation matrix was considered to be potentially appropriate for PCA. As shown in Table 4.3 (1b), the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO=.832) was greater than .6, and Barlett’s Test of Sphericity was significant ($\chi^2=430.428$, p<.05), so by each of these two criteria it was deemed to be appropriate to apply PCA to this dataset (Manning & Munro 2007).
Table 4.3 (1a): Correlation Matrix for Communication Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Listening and understanding effectively</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Speaking clearly and directly in any situations, effectively</td>
<td>.95**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>communicate verbally and non-verbally</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Negotiating responsively and ability to influence</td>
<td>.729**</td>
<td>.725**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Writing to the needs of the audience (e.g. Customers and</td>
<td>.614**</td>
<td>.653**</td>
<td>.743**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>internal stakeholders) and using numeracy effectively</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Have strong ability to exchange opinions/information effectively</td>
<td>.652**</td>
<td>.679**</td>
<td>.692**</td>
<td>.693**</td>
<td>1</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level

Source: Developed for this research (from survey results)

A set of five items measuring communication skills was included in the principal component analysis. The statistical procedure confirmed that it had a one-factor solution. This factor accounted for 76.75% of the total variance that was extracted with an eigenvalue of 3.94. The item with the largest loading (.908) on this factor was item 2 ‘speaking clearly and directly in any situations, effectively communicate verbally and non-verbally’, and item 4 ‘writing to the needs of the audience (e.g. customers and internal stakeholders) and using numeracy effectively’ had the smallest loading (.842). Thus, item 2 was considered to be the most important and influential on this factor. Based on the results of PCA, the researcher created a composite variable ‘Communication’ to represent the theoretical concept of ‘communication skills’.

Table 4.3 (1b): Factor Loadings for Communication Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Speaking clearly and directly in any situations, effectively</td>
<td>.908</td>
</tr>
<tr>
<td>communicate verbally and non-verbally</td>
<td></td>
</tr>
<tr>
<td>1. Listening and understanding effectively</td>
<td>.894</td>
</tr>
<tr>
<td>3. Negotiating responsively and ability to influence</td>
<td>.888</td>
</tr>
<tr>
<td>5. Have strong ability to exchange opinions/information effectively</td>
<td>.842</td>
</tr>
<tr>
<td>4. Writing to the needs of the audience (e.g. Customers and internal</td>
<td></td>
</tr>
<tr>
<td>stakeholders) and using numeracy effectively</td>
<td></td>
</tr>
</tbody>
</table>

Eigenvalue: 3.937
Percentage Variance Explained (%): 76.747
KMO Measure of Sampling Adequacy: .832
χ² (d.f): 430.428 (10)

Source: Developed for this research (from survey results)
Teamwork Skills

The correlation matrix in Table 4.3 (2a) shows that the bivariate correlations between the six items of the teamwork skills variable were in excess of .30. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO=.821) was greater than .6, and Barlett’s Test of Sphericity was also significant ($\chi^2=334.948$, p<.05) in Table 4.5 (2b). As a result, a PCA was conducted to measure the six teamwork skills items. This single factor accounted for 62.61% of the total variance and was extracted with an eigenvalue of 3.76, and the analysis confirmed that the scale was in fact uni-dimensional.

Table 4.3 (2a): Correlation Matrix for Teamwork Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Working with people of different ages, gender, race, religion or</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>political persuasion</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Working as an individual and as a member of a team</td>
<td>.461***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Knowing how to define a role as part of a team</td>
<td>.562***</td>
<td>.642***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Applying teamwork skills to a range of situations, e.g.</td>
<td>.321*</td>
<td>.645***</td>
<td>.498**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>futures planning, crisis problem solving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Identifying the strengths of team members</td>
<td>.398**</td>
<td>.738***</td>
<td>.603**</td>
<td>.532***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Coaching, mentoring and giving feedback</td>
<td>.412**</td>
<td>.592**</td>
<td>.668***</td>
<td>.431***</td>
<td>.731***</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level

*Source: Developed for this research (from survey results)*

Table 4.3 (2b) shows that item 7 ‘working as an individual and as a member of a team’ had the largest loading (.870) of all items, while item 6 ‘working with people of different ages, gender, race religion or political persuasion’ had the smallest factor loading (.620). Given this pattern of results, the researcher decided to create a composite variable ‘Teamwork’ to represent the theoretical concept of ‘teamwork skills’.
Table 4.3 (2b): Factor Loadings for Teamwork Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Working as an individual and as a member of a team</td>
<td>.870</td>
</tr>
<tr>
<td>10. Identifying the strengths of team members</td>
<td>.860</td>
</tr>
<tr>
<td>8. Knowing how to define a role as part of a team</td>
<td>.843</td>
</tr>
<tr>
<td>11. Coaching, mentoring and giving feedback</td>
<td>.821</td>
</tr>
<tr>
<td>9. Applying teamwork skills to a range of situations, e.g. futures</td>
<td>.700</td>
</tr>
<tr>
<td>planning, crisis problem solving</td>
<td></td>
</tr>
<tr>
<td>6. Working with people of different ages, gender, race, religion or</td>
<td>.620</td>
</tr>
<tr>
<td>political persuasion</td>
<td></td>
</tr>
</tbody>
</table>

Eigenvalue: 3.757
Percentage Variance Explained (%): 62.609
KMO Measure of Sampling Adequacy: .821
χ² (d.f): 334.948 (15)

Source: Developed for this research (from survey results)

Customer Service Skills

The principal component analysis confirmed that the five items of the customer service skills variable were measuring a single underlying construct, as shown in Table 4.3 (3b). This single factor solution accounted for 62.61% of the variance and had an eigenvalue of 3.76. The inter-item correlations (Table 4.3 3a) were also above the criterion of .30 specified by Hair et al. (1998). The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO=.824) was greater than .6, and Barlett’s Test of Sphericity was also significant (χ²= 254.425, p<.05) in Table 4.3 (3b). From this pattern of results, the researcher decided to create a composite variable using items 15 to 19.
Table 4.3 (3a): Correlation Matrix for Customer Service Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Understanding the needs of internal and external customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Listening effectively and process accurate information, be patient and provide quick response to customers</td>
<td>.676</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Build and maintain strong and long-term relationships with customers</td>
<td>.502**</td>
<td>.606**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Ability to solve problems and provide right solutions to suit different customers</td>
<td>.549**</td>
<td>.598**</td>
<td>.634**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Have excellent knowledge of company's products/services</td>
<td>.406**</td>
<td>.484**</td>
<td>.607**</td>
<td>.695**</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level

Source: Developed for this research (from survey results)

The most influential and important item of this single factor was item 15 ‘ability to solve problems and provide right solutions to suit different customers’. This item had the largest loading compared to the other items (.860). Item 12 ‘understanding the needs of internal and external customers’ had the smallest loading (.765) on this factor. A composite variable ‘Customer Service’ was created to represent the five items of this factor.

Table 4.3 (3b): Factor Loadings for Customer Service Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Ability to solve problems and provide right solutions to suit different customers</td>
<td>.860</td>
</tr>
<tr>
<td>13. Listening effectively and process accurate information, be patient and provide quick response to customers</td>
<td>.828</td>
</tr>
<tr>
<td>14. Build and maintain strong and long-term relationships with customers</td>
<td>.826</td>
</tr>
<tr>
<td>16. Have excellent knowledge of company's products/services</td>
<td>.784</td>
</tr>
<tr>
<td>12. Understanding the needs of internal and external customers</td>
<td>.765</td>
</tr>
</tbody>
</table>

Eigenvalue

3.308

Percentage Variance Explained (%)

66.159

KMO Measure of Sampling Adequacy

.824

$\chi^2$ (d.f)

254.425 (10)

Source: Developed for this research (from survey results)
Problem Solving Skills

A principal component analysis (PCA) was conducted for the four items of the problem solving skills variable. As shown in Table 4.3 (4a) and Table 4.3 (4b), the inter-item correlations for the four items were above the 0.30 threshold and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO= .747) was greater than .6. The Barlett’s Test of Sphericity was also significant ($\chi^2 = 184.629$, p<.05) as presented in Table 4.3 (4b). The analysis showed that the four items were uni-dimensional with an eigenvalue of 2.715 and accounted for 67.88% of variance.

Table 4.3 (4a): Correlation Matrix for Problem Solving Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Developing creative, innovative and practical solutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Showing independence and initiative in identifying problems and solving them</td>
<td>.774**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Solving problems in teams</td>
<td>.609**</td>
<td>.591**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Applying problem-solving strategies across a range of areas</td>
<td>.414**</td>
<td>.500**</td>
<td>.516**</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level

Source: Developed for this research (from survey results)

Table 4.3 (4b) reports the factor loadings for the problem solving skills scale. It shows that item 18 ‘showing independence and initiative in identifying problems and solving them’ had the largest loading (.882) in this factor and item 20 ‘applying problem-solving strategies across a range of areas’ had the smallest loading (.714). In other words, item 18 was considered as the most important and had the greatest influence for this factor. Based on the PCA results, the researcher created a composite variable ‘Problem Solving’ to represent the concept of ‘problem solving skills’.
Table 4.3 (4b): Factor Loadings for Problem Solving Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Showing independence and initiative in identifying problems and solving them</td>
<td>.882</td>
</tr>
<tr>
<td>17. Developing creative, innovative and practical solutions</td>
<td>.863</td>
</tr>
<tr>
<td>19. Solving problems in teams</td>
<td>.825</td>
</tr>
<tr>
<td>20. Applying problem-solving strategies across a range of areas</td>
<td>.714</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eigenvalue</th>
<th>Percentage Variance Explained (%)</th>
<th>KMO Measure of Sampling Adequacy</th>
<th>χ2 (d.f)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.715</td>
<td></td>
<td>184.629 (6)</td>
</tr>
<tr>
<td></td>
<td>67.874</td>
<td>.747</td>
<td></td>
</tr>
</tbody>
</table>

Source: Developed for this research (from survey results)

Learning Skills

The inter-item correlations for the six items of the learning skills variable were above .30 and so the correlation matrix (Table 4.3 5a) was considered to be appropriate for PCA. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO=.884) in Table 4.3 (5b) was greater than .6, and the Barlett’s Test of Sphericity was significant (χ²= 485.233, p<.05), so by each of these two criteria it was also deemed appropriate to apply PCA to this dataset. As presented in Table 4.3 (5b), only a single factor was extracted from the varimax rotation with an eigenvalue of 4.4 and this item accounted for 73.4% of total variance.

The item with the largest loading (.922) on this factor was item 23 ‘being willing to learn in any setting – on and off the job; and being prepared to invest time and effort in learning new skills’. Other items with large loadings in this factor were item 24 (.921) ‘being open to new ideas and techniques’ and item 26 (.852) ‘contributing to the learning community at the workplace’, as shown in Table 4.3 (5b). Item 25 ‘acknowledging the need to learn in order to accommodate change’ (.787) was the item with the smallest loading in this factor. A composite variable ‘Learning’ was created to represent the six items of this factor.
Table 4.3 (5a): Correlation Matrix for Learning Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>21</th>
<th>22</th>
<th>23</th>
<th>24</th>
<th>25</th>
<th>26</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Applying learning to ‘technical’ issues (e.g., learning about</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>products and ‘people’ issues (e.g., Interpersonal and cultural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aspects of work)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Having enthusiasm for ongoing learning</td>
<td></td>
<td>.570**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Being willing to learn in any setting – on and off the job; and</td>
<td></td>
<td></td>
<td>.754**</td>
<td>.769*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>being prepared to invest time and effort in learning new skills</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Being open to new ideas and techniques</td>
<td></td>
<td>.748**</td>
<td>.728**</td>
<td>.844**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>25. Acknowledging the need to learn in order to accommodate change</td>
<td></td>
<td>.522**</td>
<td>.549**</td>
<td>.614**</td>
<td>.690*</td>
<td>1</td>
</tr>
<tr>
<td>26. Contributing to the learning community at the workplace</td>
<td></td>
<td>.595**</td>
<td>.659**</td>
<td>.729**</td>
<td>.702**</td>
<td>.698*</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level

Source: Developed for this research (from survey results)

Table 4.3 (5b): Factor Loadings for Learning Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. Being willing to learn in any setting – on and off the job; and</td>
<td>.922</td>
</tr>
<tr>
<td>being prepared to invest time and effort in learning new skills</td>
<td></td>
</tr>
<tr>
<td>24. Being open to new ideas and techniques</td>
<td>.921</td>
</tr>
<tr>
<td>26. Contributing to the learning community at the workplace</td>
<td>.852</td>
</tr>
<tr>
<td>22. Having enthusiasm for ongoing learning</td>
<td>.834</td>
</tr>
<tr>
<td>21. Applying learning to ‘technical’ issues (e.g., learning about</td>
<td>.816</td>
</tr>
<tr>
<td>products and ‘people’ issues (e.g., Interpersonal and cultural</td>
<td></td>
</tr>
<tr>
<td>aspects of work)</td>
<td></td>
</tr>
<tr>
<td>25. Acknowledging the need to learn in order to accommodate change</td>
<td>.787</td>
</tr>
<tr>
<td><strong>Eigenvalue</strong></td>
<td>4.400</td>
</tr>
<tr>
<td><strong>Percentage Variance Explained (%)</strong></td>
<td>73.407</td>
</tr>
<tr>
<td><strong>KMO Measure of Sampling Adequacy</strong></td>
<td>.884</td>
</tr>
<tr>
<td><strong>χ² (d.f)</strong></td>
<td>485.233 (15)</td>
</tr>
</tbody>
</table>

Source: Developed for this research (from survey results)

Planning and Organising Skills

A one-factor solution was also reported based on the principal component analysis for the five items of the planning and organising skills factor. Like the other variables in this
research, the five items had figures in excess of .30 for their inter-item correlations (Table 4.3 6a). The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO=.816) in Table 4.3 (6b) was greater than .6, and the Barlett’s Test of Sphericity was significant ($\chi^2 = 469.590, p<.05$). This uni-dimensional factor accounted for 79.74% of the variance and had an eigenvalue of 3.972.

Table 4.3 (6b) presents the results of PCA for the above five items. Item 29 ‘establishing clear project goals and deliverables’ had the largest loading of .920 and was considered as the most influential item on this factor. Other items with large loadings on this factor were item 30 ‘planning the use of resources including time management’ (.912) and item 28 ‘adapting resource allocations to cope with contingencies’ (.891). Item 31 ‘participating in continuous improvement and planning processes’ had the smallest loading (.854) in this factor. The researcher decided to create a composite variable ‘Planning and Organising’ to represent the planning and organising skills scale.

Table 4.3 (6a): Correlation Matrix for Planning and Organising Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>27</th>
<th>28</th>
<th>29</th>
<th>30</th>
<th>31</th>
</tr>
</thead>
<tbody>
<tr>
<td>27. Managing time and priorities – setting timelines,</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>coordinating tasks for self and with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Adapting resource allocations to cope with contingencies</td>
<td>.807***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Establishing clear project goals and deliverables</td>
<td>.764***</td>
<td>.809***</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. Planning the use of resources including time management</td>
<td>.753***</td>
<td>.704***</td>
<td>.772***</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>31. Participating in continuous improvement and planning processes</td>
<td>.587***</td>
<td>.648***</td>
<td>.746***</td>
<td>.833***</td>
<td>1</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level

Source: Developed for this research (from survey results)
Table 4.3 (6b): Factor Loadings for Planning and Organising Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing clear project goals and deliverables</td>
<td>.920</td>
</tr>
<tr>
<td>Planning the use of resources including time management</td>
<td>.912</td>
</tr>
<tr>
<td>Adapting resource allocations to cope with contingencies</td>
<td>.891</td>
</tr>
<tr>
<td>Managing time and priorities – setting timelines, coordinating tasks</td>
<td>.878</td>
</tr>
<tr>
<td>for self and with others</td>
<td></td>
</tr>
<tr>
<td>Participating in continuous improvement and planning processes</td>
<td>.854</td>
</tr>
<tr>
<td>Eigenvalue</td>
<td>3.972</td>
</tr>
<tr>
<td>Percentage Variance Explained (%)</td>
<td>79.738</td>
</tr>
<tr>
<td>KMO Measure of Sampling Adequacy</td>
<td>.816</td>
</tr>
<tr>
<td>χ² (d.f)</td>
<td>469.590  (10)</td>
</tr>
</tbody>
</table>

Source: Developed for this research (from survey results)

Self-management Skills

Table 4.3 (7a) and Table 4.3 (7b) report the inter-item correlations and principal component analysis results for the self-management scale. All bivariate correlations between items were above .30 and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO=.867) was greater than .6. The Barlett’s Test of Sphericity was also significant (χ²= 663.565, p<.05) with an eigenvalue of 4.233. This factor accounted for 84.67% of the total variance with a one-factor solution.

As shown in Table 4.3 (7b), the item with the largest loading (.961) on this factor was item 34 ‘having knowledge and confidence in own ideas and vision’, which was considered to have the greatest influence in this factor. Item 36 ‘taking responsibility’ had the smallest loading of .776 in the self-management skills scale. A composite variable ‘SelfManagement’ was created based on the results of the PCA to represent the concept of ‘self-management skills’.
Table 4.3 (7a): Correlation Matrix for Self-management Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>32</th>
<th>33</th>
<th>34</th>
<th>35</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>32. Having a personal vision and goals</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. Evaluating and monitoring own performance</td>
<td>.935**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. Having knowledge and confidence in own ideas and vision</td>
<td>.888**</td>
<td>.910**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. Articulating own ideas and vision</td>
<td>.856**</td>
<td>.871**</td>
<td>.932**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>36. Taking responsibility</td>
<td>.650**</td>
<td>.651**</td>
<td>.664**</td>
<td>.671**</td>
<td>1</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level

Source: Developed for this research (from survey results)

Table 4.3 (7b): Factor Loadings for Self-management Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>34. Having knowledge and confidence in own ideas and vision</td>
<td>.961</td>
<td></td>
</tr>
<tr>
<td>33. Evaluating and monitoring own performance</td>
<td>.956</td>
<td></td>
</tr>
<tr>
<td>32. Having a personal vision and goals</td>
<td>.947</td>
<td></td>
</tr>
<tr>
<td>35. Articulating own ideas and vision</td>
<td>.947</td>
<td></td>
</tr>
<tr>
<td>36. Taking responsibility</td>
<td>.776</td>
<td></td>
</tr>
</tbody>
</table>

Eigenvalue

4.233

Percentage Variance Explained (%)

84.667

KMO Measure of Sampling Adequacy

.867

$\chi^2$ (d.f)

663.565 (10)

Source: Developed for this research (from survey results)

Initiative and Enterprise Skills

The final five items of the independent variables (items 39 to 44) for initiative and enterprise skills were tested by a principal components analysis followed by a varimax rotation. Similar to the results of the other variables, the inter-item correlations of the five items were in excess of .30 (Table 4.3 8a). The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO=.820) was greater than .6 and the Barlett’s Test of Sphericity was also significant ($\chi^2= 449.122$, p<.05), as shown in Table 4.3 (8b).

The analysis showed this factor was a uni-dimensional/one-factor solution with an eigenvalue of 4.062 and accounted for 67.69% of the total variance. Item 39 ‘being creative and innovative’ had the largest loading (.904) on this factor, and had the greatest influence on the
initiative and enterprise skills scale. Other items with large loadings on this factor were item 38 ‘developing a strategic, creative, long-term vision’ (.873) and item 37 ‘adapting to new situations (e.g. new merger, acquisitions)’ (.873). Item 40 ‘identifying opportunities not obvious to others’ (.714) had the smallest loading in this factor. Given this pattern of results it was decided to create a composite variable called ‘Initiative and Enterprise’ for this factor.

Table 4.3 (8a): Correlation Matrix for Initiative and Enterprise Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>37</th>
<th>38</th>
<th>39</th>
<th>40</th>
<th>41</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>37. Adapting to new situations (e.g. New merger, acquisitions)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. Developing a strategic, creative, long-term vision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. Being creative and innovative</td>
<td>.749*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. Identifying opportunities not obvious to others</td>
<td>.799**</td>
<td>.879**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. Generating a range of options</td>
<td>.469**</td>
<td>.495**</td>
<td>.496**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42. Translating ideas into action</td>
<td>.533**</td>
<td>.524**</td>
<td>.534**</td>
<td>.699**</td>
<td>.627**</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level

Source: Developed for this research (from survey results)

Table 4.3 (8b): Factor Loadings for Initiative and Enterprise Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>39. Being creative and innovative</td>
<td>.904</td>
</tr>
<tr>
<td>38. Developing a strategic, creative, long-term vision</td>
<td>.873</td>
</tr>
<tr>
<td>37. Adapting to new situations (e.g. new merger, acquisitions)</td>
<td>.849</td>
</tr>
<tr>
<td>42. Translating ideas into action</td>
<td>.801</td>
</tr>
<tr>
<td>41. Generating a range of options</td>
<td>.782</td>
</tr>
<tr>
<td>40. Identifying opportunities not obvious to others</td>
<td>.714</td>
</tr>
<tr>
<td>Percentage Variance Explained (%)</td>
<td>67.693</td>
</tr>
<tr>
<td>KMO Measure of Sampling Adequacy</td>
<td>.820</td>
</tr>
<tr>
<td>χ² (d.f)</td>
<td>449.122 (15)</td>
</tr>
</tbody>
</table>

Source: Developed for this research (from survey results)

4.5.1.2 Moderating Variable: Employee Engagement

The moderating variable of employee engagement was also subjected to principal component analysis (PCA), followed by a varimax rotation. The eight items of the employee engagement
factor resulted in a similar one-factor solution. As shown in Table 4.3 (9a), all bivariate correlations between items were in excess of .30 and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO=.890) was greater than .6. The Barlett’s Test of Sphericity was also significant ($\chi^2= 991.129$, p<.05) and the factor was accounted for 77.21% of total variance with an eigenvalue greater than 1 (6.18), as shown in Table 4.3 (9b).

Table 4.3 (9a): Correlation Matrix for Employee Engagement

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In general, to my knowledge, the employee engagement level in my organisation is high</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. People in this organisation are highly involved and valued</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. People in this organisation always put in a great deal of effort and accept any types of assignments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. People in this organisation know what is expected from them</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. People in this organisation understand that they have opportunities at work to learn and grow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. People in this organisation receive recognition and encouragement for doing good work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. People in this organisation know that their managers, colleagues and the senior management team care about them and willing to offer them support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. People in this organisation know that their opinions always count and they frequently make suggestions to improve organisation's products and services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level

Source: Developed for this research (from survey results)

Table 4.3 (9b) shows, the item with the largest loading was item 6 ‘people in this organisation receive recognition and encouragement for doing good work’ (.943), and it was considered to be the most important and had the greatest influence on this factor. Other items with large
loadings were item 7 ‘people in this organisation know that their managers, colleagues and the senior management team care about them and willing to offer them support’ (.917) and item 5 ‘people in this organisation understand that they have opportunities at work to learn and grow’ (.895). The item with the smallest loading in this factor was item 4 ‘People in this organisation know what is expected from them’ (.821). Given this pattern of results, the researcher decided to create a composite variable ‘EMPLOYEE_ENGAGEMENT’ to represent the theoretical concept of ‘employee engagement’.

Table 4.3 (9b): Factor Loadings for Employee Engagement

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6. People in this organisation receive recognition and encouragement for doing good work</td>
<td>.943</td>
<td></td>
</tr>
<tr>
<td>7. People in this organisation know that their managers, colleagues and the senior management team care about them and willing to offer them support</td>
<td>.917</td>
<td></td>
</tr>
<tr>
<td>5. People in this organisation understand that they have opportunities at work to learn and grow</td>
<td>.895</td>
<td></td>
</tr>
<tr>
<td>1. In general, to my knowledge, the employee engagement level in my organisation is high</td>
<td>.883</td>
<td></td>
</tr>
<tr>
<td>2. People in this organisation are highly involved and valued</td>
<td>.869</td>
<td></td>
</tr>
<tr>
<td>8. People in this organisation know that their opinions always count and they frequently make suggestions to improve organisation's products and services</td>
<td>.863</td>
<td></td>
</tr>
<tr>
<td>3. People in this organisation always put in a great deal of effort and accept any types of assignments</td>
<td>.831</td>
<td></td>
</tr>
<tr>
<td>4. People in this organisation know what is expected from them</td>
<td>.821</td>
<td></td>
</tr>
<tr>
<td><strong>Eigenvalue</strong></td>
<td>6.177</td>
<td></td>
</tr>
<tr>
<td><strong>Percentage Variance Explained (%)</strong></td>
<td>77.207</td>
<td></td>
</tr>
<tr>
<td><strong>KMO Measure of Sampling Adequacy</strong></td>
<td>.890</td>
<td></td>
</tr>
<tr>
<td><strong>χ² (d.f)</strong></td>
<td>991.129 (28)</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Developed for this research (from survey results)*

4.5.1.3 Dependent Variable: Organisational Performance

The final variable to validate for this study was the dependent variable, organisational performance. Similar to other variables, a principal components analysis followed by a varimax solution, was conducted on the five items of the organisational performance variable. As presented in Table 4.3 (10a), not all inter-item correlations were significant and above .30.
The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO=.682) was greater than .6, and the Barlett’s Test of Sphericity was significant ($\chi^2= 185.370$, $p<.05$), so by these two criteria it was deemed appropriate to apply PCA. The results in Table 4.3 (10b) show that two factors accounting for 75.92% of the total variance were extracted with eigenvalues greater than 1 (Factor 1= 2.15 and Factor 2= 1.65). Examination of the factor loadings led to the conclusion that both factors were interpretable.

**Table 4.3 (10a): Correlation Matrix for Organisational Performance**

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sales growth rate (%)</td>
<td>.820**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Return on Investment (%)</td>
<td>.067</td>
<td>.114</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Customer satisfaction</td>
<td>.113</td>
<td>.135</td>
<td>.599**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4. Products and services quality</td>
<td>.070</td>
<td>.079</td>
<td>.422**</td>
<td>.433**</td>
<td>1</td>
</tr>
<tr>
<td>5. Innovation development (new products/services)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level

Source: Developed for this research (from survey results)

As shown in Table 4.3 (10b), Factor 1 accounted for 39.47% of the variance. The item with the largest loading on Factor 1 was item 4 ‘products and services quality’ and the item with the smallest loading was item 5 ‘innovation development’. Given this pattern of results, the researcher decided to label this factor as ‘Market Performance’.

Factor 2 accounted for 36.45% of the variance. Only two items had loadings on this factor, and the loadings on both items are similar: item 1 ‘Sales growth rate %’ (.953) and item 2 ‘return on investment % (.951). Based on the results of PCA, the researcher labelled this factor as ‘Financial Performance’.
Table 4.3 (10b): Factor Loadings for Organisational Performance

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Products and services quality</td>
<td>.842</td>
<td></td>
</tr>
<tr>
<td>3. Customer satisfaction</td>
<td>.841</td>
<td></td>
</tr>
<tr>
<td>5. Innovation development (new products/services)</td>
<td>.742</td>
<td></td>
</tr>
<tr>
<td>1. Sales growth rate (%)</td>
<td></td>
<td>.953</td>
</tr>
<tr>
<td>2. Return on Investment (%)</td>
<td></td>
<td>.951</td>
</tr>
<tr>
<td><strong>Eigenvalue</strong></td>
<td>2.148</td>
<td>1.648</td>
</tr>
<tr>
<td><strong>Percentage Variance Explained (%)</strong></td>
<td>39.474</td>
<td>36.449</td>
</tr>
<tr>
<td><strong>KMO Measure of Sampling Adequacy</strong></td>
<td>0.682</td>
<td></td>
</tr>
<tr>
<td><strong>χ² (d.f)</strong></td>
<td>185.370</td>
<td>(10)</td>
</tr>
</tbody>
</table>

*Source: Developed for this research (from survey results)*

### 4.5.2 Reliability Analysis

Once the variables were validated, they were subjected to a test for internal consistency. The reliability of a measure refers to its stability over a variety of conditions such as contestable instrument items, researcher bias, respondent bias and unreliable subjects (Nunnally & Berstein 1994, as cited in Lim 2007, p. 123). As suggested by Nunnally and Bernstein (1994), the computation of Cronbach’s Alpha being well above the cut-off value of 0.70 indicated that all measures were reliable. The survey instrument of this study has 15 questions that were designed to test 11 variables, as identified in Section 4.5.1 Factor Analysis.

Cronbach’s Alpha test of reliability was conducted for each of the variables based on 104 survey responses. As shown in Table 4.4, the Cronbach’s Alpha coefficients for each of the variables are above 70%, which indicates a high reliability level for the survey instrument for this research. Ten of the variables exhibited a Cronbach’s Alpha reliability coefficient greater than 80%. The lowest Alpha registered a value of 0.73 (Market Performance) and the highest Alpha registered a value of 0.96 (Self-management).
Table 4.4: Cronbach’s Alpha reliability analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Reliability (alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication skills</td>
<td>0.92</td>
</tr>
<tr>
<td>Teamwork skills</td>
<td>0.87</td>
</tr>
<tr>
<td>Customer service skills</td>
<td>0.87</td>
</tr>
<tr>
<td>Problem solving skills</td>
<td>0.84</td>
</tr>
<tr>
<td>Learning skills</td>
<td>0.93</td>
</tr>
<tr>
<td>Planning and organising skills</td>
<td>0.93</td>
</tr>
<tr>
<td>Self-management skills</td>
<td>0.96</td>
</tr>
<tr>
<td>Initiative and enterprise skills</td>
<td>0.90</td>
</tr>
<tr>
<td>Employee Engagement</td>
<td>0.96</td>
</tr>
<tr>
<td>Market Performance</td>
<td>0.73</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Source: Developed for this research (from survey results)

4.6 Testing of Hypotheses

Having presented the descriptive analysis, responses of variables and the goodness of measures, the remainder of this chapter focuses on a statistical examination of the exploratory hypotheses described in Chapter Two.

In order to test the hypotheses developed for this study, correlation analysis and hierarchical regression analysis were applied to study the relationships between specific generic skills, employee engagement and organisational performance, and the differences with respect to the main effects, moderating effects and interaction effects. As mentioned in Chapter Three, the researcher was only interested in whether there were significant relationships between specific types of generic skills and organisational performance. As a result, correlation analysis was chosen to test the relationships between generic skills and organisational performance, instead of using the regression method which produces a single equation to estimate the unique contribution to prediction of each of the independent variable (Manning & Munro 2007). A three-step hierarchical regression analysis was also applied to examine the moderating and interaction effects of employee engagement on the relationship between generic skills and organisational performance.
### 4.6.1 Testing of Hypothesis 1

<table>
<thead>
<tr>
<th>Hypothesis 1: Interpersonal skills and organisational performance are positively related.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1a:</strong> There is a significant positive relationship between communication skills and organisational performance.</td>
</tr>
<tr>
<td><strong>H1b:</strong> There is a significant positive relationship between teamwork skills and organisational performance.</td>
</tr>
<tr>
<td><strong>H1c:</strong> There is a significant positive relationship between customer service skills and organisational performance.</td>
</tr>
</tbody>
</table>

In this section, each of the variables hypothesised was tested using the Pearson product-moment correlation (Pearson $r$) and the Spearman’s rank-order correlation (Spearman’s rho), as shown in Table 4.5.1 (a). As described in Chapter Two, the interpersonal skills dimension was divided into three skills categories (communication skills, teamwork skills and customer service skills) and each of these three categories was tested against the market performance variable (a composite variable consisting of customer satisfaction, innovation development and products and services quality, as described in Section 4.5.1) by using the Pearson product-moment correlation (Pearson $r$).

In addition, each of these three categories was also tested against the financial performance variable (a composite variable consisting of sales growth rate and return on investment) by using the Spearman’s rank-order correlation (Spearman’s rho), due to fact that financial performance was measured in an ordinal scale (Table 4.5.1a). Finally, the whole interpersonal skills dimension (a composite variable called ‘INTERPERSONAL’ consisting of communication, teamwork and customer service) was also tested against the market performance and financial performance variables by using the Pearson product-moment correlation (Pearson $r$) and the Spearman’s rank-order correlation (Spearman’s rho), as shown in Table 4.5.1 (a).
Table 4.5.1 (a): Results of Pearson r Correlation and Spearman’s rho Correlation between interpersonal skills and organisational performance types

<table>
<thead>
<tr>
<th></th>
<th>Market Performance (Pearson r)</th>
<th>Financial Performance (Spearman’s rho)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>.31**</td>
<td>-.079</td>
</tr>
<tr>
<td>Teamwork</td>
<td>.056</td>
<td>-.031</td>
</tr>
<tr>
<td>Customer Service</td>
<td>.245*</td>
<td>-.001</td>
</tr>
<tr>
<td><strong>INTERPERSONAL</strong></td>
<td>.257**</td>
<td>-.065</td>
</tr>
</tbody>
</table>

Notes: * Correlation is significant at the 0.00 level (2-tailed); ** correlation is significant at the 0.01 level (2-tailed)

*Source: Developed for this research (from survey results)*

Table 4.5.1 (a) shows that communication skills is positively correlated with market performance ($r= .31$, $p<.01$). This means that communication skills could be expected to contribute to organisational performance (market performance), in terms of customer satisfaction, innovation development and products and services quality. However, no relationship was found between communication skills and financial performance, since the value for Spearman’s rho from Table 4.5.1 (a) is $r_s=-.079$, $p>.01$. Although the results do not suggest a direct relationship between communication skills and financial performance, the researcher found correlations between market performance and the financial performance variables, sales growth and return on investment (Table 4.5.1b). These interrelationships are supported by the findings of Dollinger and Golden (1992), Knights and McCabe (1997) and Powell (1992), suggesting that studies which have used both subjective and objective measures have found correlation between the two.

Table 4.5.1 (b): Spearman’s rho Correlation between financial performance and market performance

<table>
<thead>
<tr>
<th></th>
<th>Financial Performance (Spearman’s rho)</th>
<th>Sales growth rate (Spearman’s rho)</th>
<th>Return on investment (Spearman’s rho)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Performance</td>
<td>.311**</td>
<td>.327**</td>
<td>.283**</td>
</tr>
</tbody>
</table>

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

*Source: Developed for this research (from survey results)*

The values for Spearman’s rho from Table 4.5.1 (b) suggest that there is a significant positive relationship between market performance and sales growth ($r_s=.327$, $p<.01$); and a significant
positive relationship between market performance and return on investment ($r_s = .283, p < .01$). This result implies a significant positive relationship between communication skills and financial performance but the effects of communication skills were mediated, and articulated through market performance. In other words, customer satisfaction, products and services quality, and innovation development are some of the key drivers of financial performance, and of overall business success. In this case, H1a: There is a significant positive relationship between communication skills and organisational performance is **partially accepted**, since a positive correlation was found between communication skills and market performance, but not financial performance.

H1b hypothesised that there is a significant positive relationship between teamwork skills and organisational performance. This hypothesis is **rejected** as the value for Pearson r between the two variables teamwork skills and market performance (Table 4.5.1a) is .056 and this is not significant at the .00, .01 or .05 levels. The value for Spearman’s rho between teamwork skills and financial performance is .031 and again this is not significant at the 0.00, 0.01 or 0.05 levels.

According to the results in Table 4.5.1 (a), Hypothesis 1c, there is a significant positive relationship between customer service skills and organisational performance is also **partially accepted**, as the value for Pearson r between the two variables customer service skills and market performance is .245 and is statistically significant at the .00 level. As a result, there is a significant positive relationship between customer service skills and market performance. Similar to the findings for Hypothesis 1a, the Spearman’s rho value in Table 4.5.1 (a) does not suggest a significant relationship between customer service skills and financial performance. However, the results imply that financial performance was influenced by customer service skills through market performance. Therefore, Hypothesis 1c is **partially accepted**, due to this mixed outcome.

As mentioned in this section earlier, the whole interpersonal skills dimension (composite variable- INTERPERSONAL) was also tested against the market performance and financial performance variables by using the Pearson product-moment correlation (Pearson r) and the Spearman’s rank-order correlation (Spearman’s rho), as shown in Table 4.5.1 (a). The Pearson r value for interpersonal skills and market performance is .257, $p < .01$, which
suggests that there is a significant positive relationship between the interpersonal skills dimension and market performance. However, the value of Spearman’s rho ($r_s = -0.065, p>.01$) between the interpersonal skills dimension and financial performance does not suggest a significant positive relationship between the two variables.

Since direct relationship was not found between interpersonal skills and financial performance, as interpersonal skills was only found to be positively correlated with market performance, Hypothesis 1: interpersonal skills and organisational performance is positively related is only **partially accepted**. The correlations between market performance and financial performance (sales growth and return on investment) suggest that interpersonal skills have an important influence on financial performance, but the influence was articulated through market performance (Table 4.5.1b).

**4.6.2 Testing Hypothesis 2**

<table>
<thead>
<tr>
<th>Hypothesis 2: Cognitive skills and organisational performance are positively related.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2a: There is a significant positive relationship between problem solving skills and organisational performance.</td>
</tr>
<tr>
<td>H2b: There is a significant positive relationship between learning skills and organisational performance.</td>
</tr>
</tbody>
</table>

Similar to Hypothesis 1, in this section, each of the variables hypothesised was tested using the Pearson product-moment correlation (Pearson $r$) and the Spearman’s rank-order correlation (Spearman’s rho). As described in Chapter Two, the cognitive skills dimension was divided into two skills categories (problem solving and learning) and each of these two categories was tested against the market performance variable (a composite variable consisting of customer satisfaction, innovation development and products and services quality), and against the financial performance variable (a composite variable consists sales growth rate and return on investment). The whole cognitive skills dimension (a composite variable called ‘COGNITIVE’ consisting of problem solving and learning) was also tested against the market performance and financial performance variables by using the Pearson product-moment correlation (Pearson $r$) and the Spearman’s rank-order correlation (Spearman’s rho), as shown in Table 4.5.2.
Table 4.5.2: Results of Pearson r Correlation and Spearman’s rho Correlation between cognitive skills and organisational performance types

<table>
<thead>
<tr>
<th></th>
<th>Market Performance (Pearson r)</th>
<th>Financial Performance (Spearman's rho)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Solving</td>
<td>.195*</td>
<td>-.138</td>
</tr>
<tr>
<td>Learning</td>
<td>.078</td>
<td>-.090</td>
</tr>
<tr>
<td><strong>COGNITIVE</strong></td>
<td>.147*</td>
<td>-.137</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed)

Source: Developed for this research (from survey results)

Table 4.5.2 shows that problem solving skills are positively correlated with market performance (r= .195, p<.05). This means that problem solving skills could be expected to have an impact on organisational performance (market performance), in terms of customer satisfaction, innovation development and products and services quality. However, there is no direct relationship between problem solving skills and financial performance, since the value for Spearman’s rho from Table 4.5.2 is rs = -.138, p>.01. Similar to the findings for Hypothesis 1, the results in Table 4.5.1 (b) demonstrate a significant positive relationship between market performance and the financial performance variables – sales growth and return on investment, which suggests there is a relationship between problem solving skills and financial performance, but the effects of problem solving skills on financial performance were mediated through market performance. As a result, the Hypothesis 2a: There is a significant positive relationship between problem solving skills and organisational performance is **partially accepted**, since a positive correlation was found between problem solving skills and market performance, **but not financial performance**. On the other hand, Hypothesis 2b: there is a significant positive relationship between learning skills and organisational performance is **rejected**, due to insignificant correlations between variables (market performance- r= .078, p>.01; financial performance- rs = -.090, p>.01).

Finally, the whole cognitive skills dimension (composite variable – COGNITIVE) was also tested against the market performance and financial performance variables by using the Pearson product-moment correlation (Pearson r) and the Spearman’s rank-order correlation (Spearman’s rho), as shown in Table 4.5.2. The Pearson r value for cognitive skills and market performance is .117, p<.01, which indicates a significant positive relationship between the cognitive skills dimension and market performance. However, the value of
Spearman’s rho (r$_s$ = -0.137, p > .01) between the cognitive skills dimension and financial performance does not indicate a direct significant positive relationship between the two variables. Since direct relationship does not exist between cognitive skills and financial performance, Hypothesis 2: Cognitive skills and organisational performance are positively related is only partially accepted, as a positive correlation was found between cognitive skills and market performance, but not financial performance.

### 4.6.3 Testing Hypothesis 3

<table>
<thead>
<tr>
<th>Hypothesis 3: Planning, personal management and enterprising skills and organisational performance are positively related.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H3a:</strong> There is a significant positive relationship between planning and organising skills on one hand and organisational performance on the other.</td>
</tr>
<tr>
<td><strong>H3b:</strong> There is a significant positive relationship between self-management skills and organisational performance.</td>
</tr>
<tr>
<td><strong>H3c:</strong> There is a significant positive relationship between initiative &amp; enterprise skills on one hand and organisational performance on the other.</td>
</tr>
</tbody>
</table>

In order to test the hypotheses in this section, all the variables were tested using the Pearson product-moment correlation (Pearson r) and the Spearman’s rank-order correlation (Spearman’s rho). As described in Chapter Two, the planning, personal management and enterprising skills dimension was divided into three skills categories (Planning and organising; self-management; initiative and enterprise) and each of these three categories was tested against the market performance variable (a composite variable consisting of customer satisfaction, innovation development, and products and services quality); and the financial performance variable (a composite variable consisting of sales growth rate and return on investment). The whole planning, personal management and enterprising skills dimension (a composite variable called ‘PLAN_SELFMANAGE_ENTERPRISE’ consisting of planning and organising; self-management; initiative and enterprising) was also tested against the market performance and financial performance variables by using the Pearson product-moment correlation (Pearson r) and the Spearman’s rank-order correlation (Spearman’s rho), as shown in Table 4.5.3.
Table 4.5.3: Results of Pearson r Correlation and Spearman’s rho Correlation between planning, personal management and enterprising skills and organisational performance types

<table>
<thead>
<tr>
<th></th>
<th>Market Performance (Pearson r)</th>
<th>Financial Performance (Spearman’s rho)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and Organising</td>
<td>.139</td>
<td>.075</td>
</tr>
<tr>
<td>Self-management</td>
<td>.140</td>
<td>.083</td>
</tr>
<tr>
<td>Initiative and Enterprise</td>
<td>.113</td>
<td>.020</td>
</tr>
<tr>
<td>PLAN_SELFMANAGE_ENTERPRISE</td>
<td>.157</td>
<td>.073</td>
</tr>
</tbody>
</table>

Source: Developed for this research (from survey results)

Table 4.5.3 shows the Pearson product-moment correlations and the Spearman’s rho corrections between the planning, personal management and enterprising skills dimensions and the organisational performance variables. All the skills categories have positive relationships with market performance and financial performance – planning and organising ($r = .139, p > .01; r_s = 0.075, p > .01$); self-management ($r = .140, p > .01; r_s = .083, p > .01$); initiative and enterprise ($r = .113, p > .01; r_s = .020, p > .01$). However, none of them are significant. As a result, Hypotheses 3a, 3b and 3c are rejected.

Hypothesis 3 – Planning, personal management and enterprising skills and organisational performance are positively related is also rejected, due to the insignificant results of the Pearson value .157, p > .01 and the Spearman’s rho value .073, p > .01. Further implications and conclusions for these hypotheses will be presented in Chapter Five.

4.6.4 Testing Hypothesis 4

<table>
<thead>
<tr>
<th>H4: The positive effects of generic skills on organisational performance will be stronger when employees are highly engaged.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4a: The relationship between interpersonal skills and organisational performance will be stronger when employees are highly engaged.</td>
</tr>
<tr>
<td>H4b: The relationship between cognitive skills and organisational performance will be stronger when employees are highly engaged.</td>
</tr>
<tr>
<td>H4c: The relationship between planning, personal management and enterprising skills and organisational performance will be stronger when employees are highly engaged.</td>
</tr>
</tbody>
</table>
As discussed in Section 1.3, the second objective of this research is to test whether employee engagement can intensify the influence of generic skills on the achievement of higher organisational performance. The researcher utilised three-step hierarchical regression method to test the moderating effects and the interaction effects of employee engagement, as shown in Tables 4.5.4 (b), Table 4.5.4 (c) and Table 4.5.4 (d). The interactions were tested by creating an interaction term by multiplying each of the independent variables with the moderating variable (e.g. INTERPERSONAL * EMPLOYEE_ENGAGEMENT). If the interaction variable results in a significant increase in R², it can be claimed that there is a moderating effect on the relationship between the independent and dependent variables. However, generating a new variable by multiplying together two existing variables could risks creating a multicollinearity problem, if both the independent and the moderating variables are highly correlated. Highly correlated variables will seriously affect the estimation of the regression coefficients for the main effects (Psypress: Moderation, n.d.).

**Table 4.5.4 (a): Correlation analysis for the independent and the moderating variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INTERPERSONAL</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. COGNITIVE</td>
<td></td>
<td></td>
<td>.667**</td>
<td>1</td>
</tr>
<tr>
<td>3. PLAN_SELFMANAGE_ENTERPRISE</td>
<td></td>
<td>.614**</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>4. EMPLOYEE_ENGAGEMENT</td>
<td></td>
<td></td>
<td>.300**</td>
<td>.237*</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level (2-tailed)**

*Source: Developed for this research (from survey results)*

In this study, three additional interaction variables were created after a correlation analysis (Table 4.5.4 a) of the independent variables (interpersonal; cognitive; planning, personal management and enterprising skills) and the moderating variable (employee engagement) was conducted. As shown in Table 4.5.4 (a), all the independent variables were found to be not highly correlated with the moderating variable of employee engagement. Therefore, the risks of multicollinearity effects were eliminated and the three additional interaction variables are named as follows:

1) INTERPERSONAL * EMPLOYEE_ENGAGEMENT= InterpersonalEngaged
2) COGNITIVE * EMLOYEE_ENGAGEMENT= CognitiveEngaged
As shown in Table 4.5.4 (b), a three-step hierarchical regression was employed to establish whether employee engagement moderates the relationship between interpersonal skills and organisational performance. All variables were entered consecutively. The independent variable (interpersonal skills) was entered in the first step, followed by the moderating variable (employee engagement) in the second step and the interaction variable (interpersonal skills * employee engagement) in the third step. The results in Table 4.5.4 (b) show that interpersonal skills (β=.257, p<.01) had a positive impact on organisational performance (market performance), and the value of F Change (F inc) is 7.220 with a degree of freedom of 1 and 102. This is significant at p<.01. As discussed in Section 4.6.1, the researcher discovered a significant positive relationship between market performance and financial performance (Table 4.5.1 b), which implies that the effects of generic skills on financial performance were mediated through market performance. Thus, the result in step 1 of Table 4.5.4 (b) also supported Hypothesis 1 (Section 4.6.1), where interpersonal skills and market performance are positively related.

In the second step of the analysis, employee engagement (the moderating variable) was introduced into the regression. Employee engagement had a significant positive relationship (β=.445, p<.00) with market performance, and the inclusion of employee engagement resulted in an increase of 18% (ΔR2) to the explained variance of market performance. However, employee engagement was found had insignificant relationship with financial performance.

The third step of the hierarchical regression analysis introduced the interaction effect between employee engagement and interpersonal skills on market performance and financial performance. It was discovered that the interaction variable (InterpersonalEngaged) had a positive impact on market performance (β=.344, p<.01), and the value of F Change (F inc) is 7.244 with degree of freedom of 1 and 100. This is significant at p<.01. The addition of interaction variable (InterpersonalEngaged) also resulted in an increase of 5.1% (ΔR2) to the explained variance of market performance. The result for the interaction effect between
employee engagement and interpersonal skills on financial performance was negative, as shown in Table 4.5.4 (b).

**Table 4.5.4 (b): Hierarchical regression analysis for interpersonal skills, employee engagement and organisational performance**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Market Performance</th>
<th>Financial Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1</td>
<td>Step 2</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>.257***</td>
<td>.065</td>
</tr>
<tr>
<td>Employment Engagement</td>
<td>.445***</td>
<td>.687</td>
</tr>
<tr>
<td>Interpersonal skills * Employee Engagement</td>
<td>.344**</td>
<td>- .013</td>
</tr>
</tbody>
</table>

*Standardised betas are reported here*

*** Correlation is significant at the 0.00 level; **Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level (2-tailed)*

*Source: Developed for this research (from survey results)*

As a result, there is evidence that employee engagement moderates the relationship between interpersonal skills and market performance, but not financial performance, so Hypothesis 4a: The relationship between interpersonal skills and organisational performance will be stronger when employees are highly engaged is **partially accepted**.

Hypothesis 4b is **partially accepted**, based on the results in Table 4.5.4 (c). In the first step of the hierarchical regression analysis, cognitive skills were found to have a significant positive relationship ($\beta=.147$, $p<.05$) with market performance. The value for F Change/Finc is 2.240 with degrees of freedom of 1 and 102 and is significant at $p<.05$. Financial performance, on the other hand, had found negative relationship with employee engagement.
Table 4.5.4 (c): Hierarchical regression analysis for cognitive skills, employee engagement and organisational performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>Market Performance</th>
<th>Financial Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step 1</td>
<td>Step 2</td>
</tr>
<tr>
<td>Cognitive skills (COGNITIVE)</td>
<td>.147***</td>
<td></td>
</tr>
<tr>
<td>Employee Engagement (EMPLOYEE ENGAGEMENT)</td>
<td>.474***</td>
<td></td>
</tr>
<tr>
<td>Cognitive skills * Employee Engagement (CognitiveEngaged)</td>
<td>.389***</td>
<td></td>
</tr>
</tbody>
</table>

Standardized betas are reported here

*** Correlation is significant at the 0.00 level; ** Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level (2-tailed)

Source: Developed for this research (from survey results)

In the second step, employee engagement had a positive influence on market performance, where $\beta=.474$, $p<.00$ and it also resulted in an increase of 21.2% ($\Delta R^2$) in the explained variance of market performance. However, similar result did not occur in financial performance.

In the final step of the hierarchical regression analysis, the interaction variable (CognitiveEngaged) was found to have a significant positive relationship ($\beta=.389$, $p<.00$) with market performance. The value for $F$ Change/Finc is 6.471 with degrees of freedom of 1 and 100 and is significant at $p<.00$. The inclusion of the interaction variable (CognitiveEngaged) also resulted in an increase of 4.7% ($\Delta R^2$) in the explained variance of market performance. It can be concluded there is evidence that employee engagement moderates the relationship between cognitive skills and market performance, but not financial performance due to negative and insignificant results. As a result, Hypothesis 4b is partially accepted based on this mixed outcome.
Table 4.5.4 (d): Hierarchical regression analysis for planning, personal management and enterprising skills, employee engagement and organisational performance

As shown in the results in Table 4.5.4 (d), Hypothesis 4c: The relationship between planning, personal management and enterprising skills on the one hand and organisational performance on the other will be stronger when employees are highly engaged is partially accepted. In the first step of the analysis, results show that there was no significant positive relationship (β=.157, p=.110) between planning, personal management and enterprising skills, market performance and financial performance. However, a positive impact of employee engagement on market performance was found (β=.499, p<.00) with an increase of 20.9% (ΔR2) in the explained variance of market performance, but similar scenario had not found in the relationship between employee engagement and financial performance. There is evidence that employee engagement moderates the relationship between planning, personal management and enterprising skills and market performance (β=.375, p<.00), as the inclusion of the interaction variable (PlanPerEnterprise_Engaged) resulted in an increase of 4.8% (ΔR2) in the explained variance of market performance. The interactive effect between employee
engagement, planning, personal management and enterprising skills on financial performance was negative and insignificant. As a result, Hypothesis 4c is partially accepted based on the significant positive moderating effect found between planning, personal management and enterprising skills on the one hand and market performance on the other.

Finally, Hypothesis 4: The positive effects of generic skills on organisational performance will be stronger when employees are highly engaged is partially accepted, since there is compelling evidence in this study showing that employee engagement can intensify the effects of generic skills on market performance, but not financial performance.

4.6.5 Summary of Hypotheses Testing Results

Synthesising from the analyses, the results of the hypotheses testing are presented in Table 4.6.

Table 4.6: Summary of the results of hypotheses testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement of Hypothesis</th>
<th>Accepted/Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Interpersonal skills and organisational performance are positively related</td>
<td>Partially Accepted</td>
</tr>
<tr>
<td>1a</td>
<td>There is a significant positive relationship between communication skills and organisational performance</td>
<td>Partially Accepted</td>
</tr>
<tr>
<td>1b</td>
<td>There is a significant positive relationship between teamwork skills and organisational performance</td>
<td>Rejected</td>
</tr>
<tr>
<td>1c</td>
<td>There is a significant positive relationship between customer service skills and organisational performance</td>
<td>Partially Accepted</td>
</tr>
<tr>
<td>2</td>
<td>Cognitive skills and organisational performance are positively related</td>
<td>Partially Accepted</td>
</tr>
<tr>
<td>2a</td>
<td>There is a significant positive relationship between problem solving skills and organisational performance</td>
<td>Partially Accepted</td>
</tr>
<tr>
<td>2b</td>
<td>There is a significant positive relationship between learning skills and organisational performance</td>
<td>Rejected</td>
</tr>
<tr>
<td>3</td>
<td>Planning, personal management and enterprise skills are positively related to organisational performance</td>
<td>Rejected</td>
</tr>
<tr>
<td>3a</td>
<td>There is a significant positive relationship between planning and organising skills on the one hand, and organisational performance on the other</td>
<td>Rejected</td>
</tr>
<tr>
<td>3b</td>
<td>There is a significant positive relationship between self-management skills and organisational performance</td>
<td>Rejected</td>
</tr>
<tr>
<td>3c</td>
<td>There is a significant positive relationship between initiative and enterprising skills on the one hand, and organisational performance on the other</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
4.7 Conclusion

This chapter has presented the analysis of the survey results and has tested the hypotheses derived from the literature review. Data collected from the online surveys were analysed in accordance with the data analysis strategy. Chapter Four analysed respondent characteristics, such as industry sectors; education level; positive title and company size from the 104 responses. The analysis of the responses to variables was also presented with evidence demonstrated generic skills and employee engagement are important to organisational performance. Finally, all the research hypotheses were statistically tested, and the findings were presented in details supported by graphs and data tables. Four main hypotheses and six sub-hypotheses were partially accepted, and the conclusions from findings will be fully discussed in Chapter Five.
Chapter Five – Conclusions and Implications

5.1 Introduction

In this, the final chapter of the thesis, the results of data analysis and the empirical evidence presented in Chapter Four are brought together with relevant literature to present the conclusions and implications that have been drawn from this study. The overall structure of Chapter Five is provided in Figure 5.1.

Figure 5.1 Overall Structure of Chapter Five

Source: Developed for this research
5.2 Restatement of Research Problem, Research Questions and Hypotheses

This section summarises the research problem and details the research questions and hypotheses of this research.

5.2.1 Research Problem Summarised

Generic skills have been identified as the most critical skills in the current global market (Malaysia Ministry of Higher Education 2006) and an emphasis on generic skills is part of the move towards developing ‘human capital’ to meet the demands of the ‘new knowledge economy’ (Sanguinetti 2004). The literature suggests that technical skills contribute to only 15% of one’s success while the remaining 85% is made by ‘generic skills’ (India Ministry of HRD 2009). As a result, in addition to job-specific technical competencies, generic skills are now regarded as extremely important for business enterprises in the 21st century, especially businesses that aim to achieve superior organisational performance.

There is a considerable number of case studies, surveys and anecdotal evidence to confirm skills do matter, but the existing empirical research into the relationship between skills and performance is rather limited, and not coherent (Lloyd & Payne 2004). In particular, research involving generic skills is lacking. Moreover, despite a substantial amount of UK literature on skills and organisational related outcomes, such as productivity and innovation (Gambin et al. 2009; Mason et al. 2007; Galindo-Rueda & Haskel 2005; Harris et al. 2005), academic studies solely focusing on exploring the relationship between generic skills and organisational performance are extremely rare and there is no direct empirical evidence of the effects of generic skills on organisational performance. Most of the published research does not distinguish generic skills from a single skills dimension and there has been far less emphasis in this research area in Australia.

Generic skills cannot be considered in isolation from other factors that contribute to individual, team and organisational performance (Field & Mawler 1996). While generic skills are only one ingredient in the recipe for effective performances and work teams (Moy 1999, p. 38), this research suggests that employee engagement can intensify the effects of generic skills in achieving higher organisational performance. The impact of generic skills on
organisational performance will be stronger when employees are engaged and display discretionary effort in their jobs. The research problem addressed by this study is therefore: ‘to investigate the relationship between generic skills and organisational performance, and to examine the moderating effects of employee engagement’.

5.2.2 Research Questions

As mentioned in Section 2.2 that there were four research questions addressed in this study for the development of a conceptual model and to formulate hypotheses:

1. What are the essential generic skills for business enterprises success?
2. How, and to what extent, do generic skills contribute to organisational performance?
3. What is the impact of employee engagement on organisational performance?
4. Does employment engagement influence and strengthen the relationship between generic skills and organisational performance?

5.2.3 Research Hypotheses

The conceptual model and the four key hypotheses (with 11 sub-hypotheses) which developed from the literature review in Chapter Two are re-stated in Figure 5.2 and summarised below:

Restatement of the research hypotheses

Hypothesis 1: Interpersonal skills and organisational performance are positively related.

- **H1a**: There is a significant positive relationship between communication skills and organisational performance.
- **H1b**: There is a significant positive relationship between teamwork skills and organisational performance.
- **H1c**: There is a significant positive relationship between customer service skills and organisational performance.
Hypothesis 2: Cognitive skills and organisational performance are positively related.

- **H2a:** There is a significant positive relationship between problem solving skills and organisational performance.
- **H2b:** There is a significant positive relationship between learning skills and organisational performance.

Hypothesis 3: Planning, personal management and enterprise skills are positively related to organisational performance.

- **H3a:** There is a significant positive relationship between planning and organising skills on the one hand, and organisational performance on the other.
- **H3b:** There is a significant positive relationship between self-management skills and organisational performance.
- **H3c:** There is a significant positive relationship between initiative and enterprising skills on the one hand, and organisational performance on the other.

Hypothesis 4: The positive effects of generic skills on organisational performance will be stronger when employees are highly engaged.

- **H4a:** The relationship between interpersonal skills and organisational performance will be stronger when employees are highly engaged.
- **H4b:** The relationship between cognitive skills and organisational performance will be stronger when employees are highly engaged.
- **H4c:** The relationship between planning, personal management and enterprising skills on organisational performance will be stronger when employees are highly engaged.
5.3 Conclusions about Hypotheses

In this study, the four key research hypotheses, along with a total of 11 sub-hypotheses, were designed to test the proposed relationships between individual generic skills and organisational performance, and to further examine the possible moderating effects of employee engagement on these relationships. Based on the review of relevant literature and the data analysis results, the conclusions to the research hypotheses are discussed below.

5.3.1 Conclusions to Hypothesis 1 and Hypotheses 1a, 1b and 1c

As mentioned in Section 4.6.1, the interpersonal skills dimension was divided into three skills categories (communication skills, teamwork skills and customer service skills) as in
Hypotheses 1a, 1b and 1c. The results of Hypothesis 1 and its sub-hypotheses in Chapter Four are reproduced in Table 5.1a.

**Table 5.1a: Summary of the results of Hypothesis 1**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement of Hypothesis</th>
<th>Parameter (market performance)</th>
<th>Parameter (financial performance)</th>
<th>Accepted/Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Interpersonal skills and organisational performance are positively related</td>
<td>Positive and significant at the 0.01 level</td>
<td>Negative and not significant</td>
<td>Partially Accepted</td>
</tr>
<tr>
<td>1a</td>
<td>There is a significant positive relationship between communication skills and organisational performance</td>
<td>Positive and significant at the 0.01 level</td>
<td>Negative and not significant</td>
<td>Partially Accepted</td>
</tr>
<tr>
<td>1b</td>
<td>There is a significant positive relationship between teamwork skills and organisational performance</td>
<td>Positive but not significant</td>
<td>Negative and not significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>1c</td>
<td>There is a significant positive relationship between customer service skills and organisational performance</td>
<td>Positive and significant at the 0.00 level</td>
<td>Negative and not significant</td>
<td>Partially Accepted</td>
</tr>
</tbody>
</table>

*Source: Developed for this study (from survey results)*

Hypothesis 1a was **partially accepted** as the result of a significant positive correlation between communication skills and market performance ($r=.31$, $p<.01$), and an insignificant negative correlation between communication skills and financial performance ($r=-.079$, $p>.01$). This is consistent with the literature (AIM 2012; Allen Consulting Group 2000 & 2006; Payne 2005; ACCI & BCA 2002) and demonstrates that communication skills contribute to productive, effective and harmonious relations between employees and customers and help achieve organisation outcomes. The findings tend to indicate that structural change to the economy, and the growing complexity and diversity of services and products that companies provide have influenced the increased requirements for excellent communication skills. As mentioned in Section 4.4.1, top performing companies in the finance and insurance industry tends to require employees to have excellent writing skills to communicate with customers and internal stakeholders explicitly, and have to have the ability to exchange opinions/information effectively. Therefore, it could be concluded that communication skills are one of the key contributors to top performing organisations’ success, and effectively influence customer satisfaction, innovation development and, products and services quality to achieve superior financial performance.
Hypothesis 1b is **rejected** based on the insignificant correlations between teamwork skills, market performance ($r=.056$, $p>.01$), and financial performance ($r_s=-.138$, $p>.01$). This finding is consistent with the descriptive statistics in Section 4.4.1 which showed that respondents gave a low rating to most of the skills elements in teamwork skills category, but the finding is not consistent with the studies of Allen Consulting Group (2006), Field and Mawler (1996) and Kearns (2001) who found that effective teamwork can contribute to business outcomes. Descriptive statistics indicate that respondents gave high ratings to teamwork to a range of situations such as future planning and crisis problem solving. This reflects that ‘solo’ performance is not good enough in top performing workplaces. It is suggested that more research is required on teamwork skills, as it is clear that working more closely with a range of different people means that employees are developing new skills and attitudes relating to cooperation and tolerance, which underpins capability and performance. Therefore, it could be concluded that senior executive/managers in top performing organisations generally recognise the importance of teamwork skills and agree that they are necessary, but not sufficient, for business success. However, it is necessary to note that corporation culture and its management style do have significant impact on teamwork. To this end it is recommended that further investigation in this area is warranted.

Hypothesis 1c is **partially accepted** as the result of significant positive correlation between customer service skills and market performance ($r=.245$, $p<.00$), and an insignificant negative correlation between customer service skills and financial performance ($r_s=-.001$, $p>.01$). This finding is consistent with the literature (Constable 2012; Williams & Naumann 2011; ACCI & BCA 2002; Allen Consulting Group 2000 & 2006) and demonstrates that excellent customer service can contribute to achieving organisational outcomes. The findings in Section 4.4.1 also indicate that building and maintaining strong and long-term relationships with customers had a strong positive impact on organisational performance, in particular with regard to the ability to solving problems and providing appropriate solutions to suit different customers; understanding the needs of internal and external customers; having excellent knowledge of company’s products/services; and listening effectively and providing quick responses to customers. Therefore, it can be concluded that customer service skills are highly important to top performing companies and have a strong positive impact on organisation’s performance particularly in the areas of customer satisfaction, and product and service quality.
Overall, this study found that there is a positive relationship between interpersonal skills (Hypothesis 1) and market performance ($r= .257$, $p<.01$), but not financial performance ($r= -.065$, $p>.01$), as described in Section 4.6.1 and summarised in Table 5.1a. These findings are consistent with previous research, which demonstrated that interpersonal skills significantly influence a range of performance indicators (Morgeson et al. 2005; Rozell et al. 2006; Riggio & Taylor 2000; Ferris 2001). Another study, by Mittal and Lassar (1998), suggesting that interpersonal skills have positive impacts on customer satisfaction and loyalty, and can eventually influence a company’s performance. Similarly, other previous studies identified interpersonal skills as one of the most influential factors for products and services quality; reliability of the company; employee and customer satisfaction; and customer service orientation (Guenzi & Pelloni 2004; Algae et al. 2002; Kay & Russette 2000; Lewis & Entwistle 1990); and according to Hill and Petty’s study (1995), interpersonal skills are the strongest predictor of employability.

The findings of this study indicate that interpersonal skills are critical to organisational success, in terms of contributing to organisations’ market performance (customer satisfaction; products and services quality; innovation development) and financial performance (sales growth and return on investment). The empirical evidence presented in Section 4.6.1 shows that interpersonal skills have a direct influence on market performance but, do not impact financial performance directly as the influence must be articulated through and mediated by market performance. This result has established new links between market performance, sales growth ($r= .327$, $P<.01$) and return on investment ($r= .283$, $p<.01$). Therefore, it can be concluded that there is a relationship between interpersonal skills, market performance and financial performance, confirming that interpersonal skills are important to, and have a positive influence on top performing organisations’ market performance and financial performance.

5.3.2 Conclusions to Hypothesis 2 and Hypotheses 2a and 2b

The cognitive skills dimension was divided into two skills categories (problem solving skills and learning skills) as in Hypotheses 2a and 2b. Table 5.1b provides a summary of the results for Hypothesis 2 and its sub-hypotheses.
Table 5.1b: Summary of the results of Hypothesis 2

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement of Hypothesis</th>
<th>Parameter (market performance)</th>
<th>Parameter (market performance)</th>
<th>Accepted/Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Cognitive skills and organisational performance are positively related</td>
<td>Positive and significant at the 0.05 level</td>
<td>Negative and not significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>2a</td>
<td>There is a significant positive relationship between problem solving skills and organisational performance</td>
<td>Positive and significant at the 0.01 level</td>
<td>Negative and not significant</td>
<td>Accepted</td>
</tr>
<tr>
<td>2b</td>
<td>There is a significant positive relationship between learning skills and organisational performance</td>
<td>Positive but not significant</td>
<td>Negative and not significant</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

Source: Developed for this study (from survey results)

As shown in Table 5.1b, Hypothesis 2a is partially accepted as the result of a significant positive correlation between problem solving skills and market performance ($r=.195$, $p<.05$), and an insignificant negative correlation between problem solving skills and financial performance ($r_s=-.138$, $p>.01$). This finding is consistent with the literature (AIM 2012; Constable 2012; Deloitte & AIG 2008; Allen Consulting Group 2000 & 2006) and demonstrates that problem solving skills contribute to organisation outcomes such as production and innovation. The findings also tend to indicate that in top performing companies, there is a constant focus in solving problems in order to achieve overriding goals like customer service and quality. Therefore, it could be concluded that problem solving skills have a positive influence on organisational performance and they are critical to top performing organisations’ success.

Hypothesis 2b is rejected based on the insignificant correlations between learning skills, market performance ($r=.078$, $p>.01$) and financial performance ($r_s=-.090$, $p>.01$). This unexpected finding is consistent with the descriptive statistics in Section 4.4.1 which indicate that respondents gave a lower rating to all forms of learning skills, but the finding is not consistent with Department of Education Science and Training (DEST 2006) who suggests that learning contributes to ongoing improvement and expansion in employee and company operations and outcomes. As a result, it could be concluded that learning skills are necessary but not sufficient for organisational performance. However, more research is required on learning skills, as it is abundantly clear that willingness and capacity to learn is an essential generic skill for the 21st century that underpins capability and performance (Kearns 2001).
As presented in Section 4.6.2, this study found that cognitive skills (Hypothesis 2) and market performance are positively correlated ($r=.147$, $p<.05$). This finding is consistent with the literature. For example, Payne (2005) suggests that cognitive skills can influence organisational outcomes, such as job performance; Morgan and Strong (2003) found significant relationships between cognitive abilities, strategic orientation and business performance; and Bergeron et al. (2004) found performance impacts from the strategic alignment between cognitive skills, IT, strategy, and structure. Other connections have been made between cognitive skills and organisational outcomes; Tsai and Huang (2008) found moderating effects of cognitive skills on the relationship between exploration and new product development performance; Delmar (1996) found an association between entrepreneurial behaviour, cognitive abilities and business performance; and the impact of cognitive skills on customer satisfaction was discovered by Bagozzi in 1980, through a marketing study of examining the antecedents and simultaneity of performance and satisfaction. These previous studies suggest that cognitive skills can influence organisational performance in different aspects.

Therefore, it could be concluded that cognitive skills have a positive influence on organisational performance. These skills are critical to organisational success, in terms of their contribution to organisations’ market performance (customer satisfaction; products and services quality; innovation development) and financial performance (sales growth and return on investment). Similar to the empirical evidence of Hypothesis 1, cognitive skills had a direct influence on market performance but does not impact financial performance directly as the influence must be articulated through and mediated by market performance. As a result, this research also concluded that customer satisfaction, products and services quality, and innovation development can lead to an organisation’s success in financial performance outcomes such as sales growth and return on investment.

5.3.3 Conclusions to Hypothesis 3 and Hypotheses 3a, 3b and 3c

The planning, personal management and enterprising skills dimension was divided into three skills categories (planning and organising skills; self-management skills; initiative and enterprise skills) as described in Hypotheses 3a, 3b and 3c. Table 5.1c provides a summary of the results for Hypothesis 3 and its sub-hypotheses.
Table 5.1c: Summary of the results of Hypothesis 3

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement of Hypothesis</th>
<th>Parameter (market performance)</th>
<th>Parameter (financial performance)</th>
<th>Accepted/Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Planning, personal management and enterprising skills on the one hand and organisational performance on the other are positively related</td>
<td>Positive but not significant</td>
<td>Positive but not significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>3a</td>
<td>There is a significant positive relationship between planning and organising skills on the one hand and organisational performance on the other</td>
<td>Positive but not significant</td>
<td>Positive but not significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>3b</td>
<td>There is a significant positive relationship between self-management skills and organisational performance</td>
<td>Positive but not significant</td>
<td>Positive but not significant</td>
<td>Rejected</td>
</tr>
<tr>
<td>3c</td>
<td>There is a significant positive relationship between initiative and enterprising skills on the one hand and organisational performance on the other</td>
<td>Positive but not significant</td>
<td>Positive but not significant</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

Source: Developed for this study (from survey results)

Hypothesis 3a is **rejected** based on the insignificant correlations between planning and organising skills, market performance ($r = .139$, $p > .01$) and financial performance ($r = .075$, $p > .01$), as presented in Section 4.6.3 and summarised in Table 5.1c. This unexpected finding is not consistent with the research conducted by ACCI and BCA (2002), which reported that planning and organising can contribute to long-term and short-term strategic planning; and it is not consistent with the descriptive statistics in Section 4.4.1 that respondents gave a reasonably high rating to all planning and skill elements. The statement Kearns made in 2001 that the capacity to plan and organise one’s own work activities, including making good use of time and resources, sorting out priorities and monitoring one’s own performance, could imply that these skills are not sufficient to influence an organisation’s performance, as they are more likely to contribute to an individual’s work discipline. Therefore, it could be concluded that planning and organising skills are important to organisations but the statistical relationships between these skills and organisational performance do not exist. This implies that further research on planning and organising skills is required.

Hypothesis 3b is **rejected** based on the insignificant correlations between self-management skills, market performance ($r = .140$, $p > .01$) and financial performance ($r = .083$, $p > .01$). This finding is consistent with ACCI and BCA (2002) which implies that the impact of self-management skills will only occur at an individual level, rather than an organisational level as self-management only contribute to employee self-satisfaction and growth. This thesis
argues that these skills are currently under-valued by the respondents, or mistakenly seen by the respondents as a personal value, rather than a skill, as shown in the results in Section 4.41 that, all respondents have not given high ratings for the skill elements in the self-management construct. Furthermore, respondents have not perceived long-term benefits of these skills to their organisations, as suggested by ACCI & BCA (2002). In addition, western managers could be too focused on short term results because of their cultural orientation (Felstead et al. 2007).

This thesis suggests that an employee with good self-management skills will have clear priorities and be able to critically review their strengths and weaknesses; have the ability to manage themselves in relation to the outcomes expected of their work role; and take responsibility for their own performance. As suggested by the Department of Education, Science and Training (DEST 2006), all these skills are critical to an organisation’s success and sustainability. Therefore, it could be concluded that self-management can potentially influence organisational performance, but further research on these skills would be needed in order to explore, and to prove the underpin capability and performance.

Hypothesis 3c is rejected based on the insignificant correlations between initiative and enterprise skills, market performance ($r=.113$, $p>.01$) and financial performance ($r_s = .020$, $p>.01$). This was also an unexpected finding as all respondents gave reasonably high ratings to all initiative and enterprise skills elements, as shown in Table 4.2g. The descriptive statistics suggest that top performing companies are proactive and exercise initiative as they identify opportunities which are not obvious to others. This indicates that initiative and enterprise skills are one of the ‘key success’ factors for respondents’ organisations. However, the finding from present study is not consistent with ACCI and BCA (2002) which found that initiative and enterprise skills can contribute to innovative outcomes. Therefore, it could be concluded that initiative and enterprise skills are important to organisations but they are not sufficient to guarantee high organisational performance. Further research on initiative and enterprise skills is strongly recommended as these skills underpin untapped potential for long-term business growth.

As presented in Section 4.6.3, this study found that planning, personal management and enterprise skills (Hypothesis 3), performance and financial performance are not positively
related ($r=.157$, $p>.05$; $r_s=.073$, $p>.01$). This finding was expected since all three skills categories in this dimension showed insignificant relationships with organisational performance. However, this finding had raised a concern to the researcher, given this country is relying heavily on innovation and sustainability in the 21st century and beyond. Nevertheless, based on the statistical analysis in Section 4.41, it could be concluded that planning, personal management and enterprise skills can influence organisational performance, but the effects do not make a significant contribution to performance at the present time.

5.3.4 Conclusions to Hypothesis 4 and Hypotheses 4a, 4b and 4c

The final set of hypotheses (4, 4a, 4b and 4c) were designed to fulfil the second objective of this research which was to test whether employee engagement can intensify the effects of generic skills to achieve higher organisational performance. It is a key argument of this thesis that the contribution of generic skills will be limited if the employees are disengaged or not motivated to perform their job. Specifically, as mentioned in Chapter Two, this is based on the view that skills are only one element of business success but that there are also other factors correlate with organisational performance (Tamkin 2005).

As presented in Tables 4.5.4 (a), 4.5.4 (b), 4.5.4 (c) and 4.5.4 (d) and summarised in Table 5.1d, the results have provided compelling evidence that employee engagement can reinforce and strengthen the effects of generic skills on market performance. The addition of interaction variables all resulted in significant increases in $R^2$, indicating that there are moderating effects on the relationship between the independent (generic skills) and dependent (market performance) variables. The results also suggest that employee engagement has a direct effect on market performance.

Overall, these findings are consistent with the literature. For example, various scholars have found that employee engagement and organisational performance are related (Walker Information Inc. 2000; Barber et al. 1999; Balfour & Wechsler 1996). The moderating effects found in this research were also consistent with some of the indirect evidence (Skills Australia 2010; Sejts & Crim 2006; Tamkin 2005; Delany & Huselid 1996) that skills
utilisation is dependent in part on the motivation and engagement of employees, their attitudes to their organisations, their colleagues, their customers and their job.

Therefore, it could be concluded that employee engagement has a positive impact on market performance and significantly moderates the relationship between generic skills and market performance.

Table 5.1d: Summary of the results of Hypothesis 4

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement of Hypothesis</th>
<th>Increase in R square in interaction term (market performance)</th>
<th>Increase in R square in interaction term (financial performance)</th>
<th>Accepted/Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>The positive effects of generic skills on organisational performance will be stronger when employees are highly engaged</td>
<td>n/a</td>
<td>n/a</td>
<td>Partially Accepted</td>
</tr>
<tr>
<td>4a</td>
<td>The relationship between interpersonal skills and organisational performance will be stronger when employees are highly engaged</td>
<td>5.1%</td>
<td>0.7% (not significant)</td>
<td>Partially Accepted</td>
</tr>
<tr>
<td>4b</td>
<td>The relationship between cognitive skills and organisational performance will be stronger when employees are highly engaged</td>
<td>4.7%</td>
<td>0%</td>
<td>Partially Accepted</td>
</tr>
<tr>
<td>4c</td>
<td>The relationship between planning, personal management and enterprising skills on organisational performance will be stronger when employees are highly engaged</td>
<td>4.8%</td>
<td>0%</td>
<td>Partially Accepted</td>
</tr>
</tbody>
</table>

Source: Developed for this study (from survey results)

5.4 Conclusions on Research Problem

As mentioned in Section 1.2.1, this thesis argues that the statistical relationships between skills, particularly generic skills, and organisational performance do exist, and the effects of these skills should not be underestimated. The results from this study provide compelling empirical evidence that generic skills such as communication, customer service and problem solving can significantly influence market performance. It increased our understanding of the
interaction between generic skills and organisational performance (market performance and financial performance).

Additionally, this study shows that in top performing organisations, generic skills play a pivotal role in improving market performance outcomes such as customer satisfaction, products and services quality, and innovation development. As a result, these skills lead to success in financial performance. In other words, generic skills were found to have a positive influence on financial performance. But, this influence was indirect and it was mediated through market performance. This is a remarkable discovery since there have been many views and arguments in past decades in regards to whether an empirical link between generic skills and performance does or should exist. In particular, empirical research into the connection between generic skills and organisational performance is lacking, as previous research in Australia was mainly focused on vocational training and education (Moy 1999). Although other generic skills tested in this research were not significantly related to organisational performance, this thesis suggests that these skills have positive influences on organisational performance but the influences are not large enough to be significant at the present time. The findings thus offer potential avenues for further research into generic skills utilisation and development.

Another notable discovery of this research is the moderating effects of employee engagement on the relationship between generic skills and market performance. This implies that skills utilisation and its effects are truly dependent in part on the motivation and engagement of employees. Thus, the effects of generic skills on market performance will be stronger when employees are highly engaged. This thesis concludes that the research problem ‘to investigate the relationship between generic skills and organisational performance, and to examine the moderating effects of employee engagement’ addressed in the present study has been examined thoroughly and the findings contribute to knowledge in a number of fields, as discussed in Sections 5.5 and 5.6.
5.5 Implications of the Research

This section discusses the implications of the research for enterprises and industries, government and academic research.

5.5.1 Implications for Enterprises

This research sets out to investigate the impact of generic skills on organisational performance, and to test whether employee engagement can intensify the effects of generic skills to achieve higher organisational performance. The theoretical framework developed in Chapter Two contributes a new explanation of the relationship between generic skills, employee engagement and organisational performance, beyond those provided in antecedent literature that mainly focuses on education and training.

One of the biggest issues for enterprises wanting to sustain business growth is skills gaps (discussed in Section 2.6.1). According to previous research, skills gaps typically occur due to a shortfall in generic skills and/or technical skills. In the long-run, skills gaps, can severely constrain an organisation’s performance, by preventing or delaying the introduction of new products/services or new working practices to produce and deliver these new products/services (Sutherland 2010; Hogarth & Wilson 2001). Enterprises continue to place considerable emphasis upon generic skills rather than technical skills and formal qualifications; they often stress the importance of communication skills, problem solving skills and customer service skills as those generic skills are significantly related to performance (CEDEFOP 2010; Hogarth & Wilson 2007). In Australia, skills gaps and a generic skills shortage remain as significant and detrimental problems. Seventy-seven per cent of the almost 1,700 Australian executives and professionals surveyed in the AIM (Australian Institute of Management) Skills Gaps Survey 2012 reported that their employees’ current skills are insufficient to meet current business objectives. The results from this research provide enterprises and industries with more rigorous empirical evidence to translate into practices that solve organisational problems.

Consistent with the views on the importance and impact of generic skills mentioned in Chapter Two (Stoyanova & Grugulis 2010; Spilsbury & Constable 2010; Felstead et al. 2007;
Sanguinetti 2004), this study confirmed that specific types of generic skills can significantly influence organisational performance on several fronts, namely, customer satisfaction, products and services quality, innovation development, sales growth, and return on investment. The evidence is made explicit in the data analysis chapter. Recognising the importance of specific generic skills and the actual impacts they make to organisational performance, enterprises and industries should now emphasise efforts to develop improved methods of training and development to enhance their employees’ interpersonal skills and cognitive skills. Training and development initiatives have been proven by many previous empirical studies to lead to improved employee skills (Ahmad et al. 2010). However, some scholars have questioned whether training is necessarily about building skills (Stoyanova & Grugulis 2010), especially formal training which focuses exclusively on gaining accreditation/qualifications (Grugulis et al. 2004). Self (2008), Keep et al. (2002) and Kinnie et al. (2002) also suggest that training may be used as a tool for motivation but could do little to facilitate skills building.

Callaghan and Thompson’s case study (2002) on call centres highlights the difficulties for organisations to purchase generic skills directly on the labour market, and reflects training is an ideal solution to acquire/improve employee skills. The study found that employees face intensive recruitment and training regimes as a means of deseleting the wrong people and selecting people who have appropriate values and attitudes, if indeed they are lacking the appropriate skills (Townsend 2005, p.517). Despite the debate above, there is evidence on the use of training provides a link to knowledge or skills generation and management and the capacity of enterprises for innovation and workplace change (Kearns 2001). For example, research findings from the AIM Skills Gaps Survey (2012) in Australia, and the UK National Employer Skills Survey (2011) suggest that provide training and utilising internal resources to boost training can help organisations to avoid skills gaps and improve employee skills (both technical and generic skills).

It is arguable to some extent, because both formal and on-the-job trainings are essential, dependent on the specific job roles involved. Formal training in generic skills, such as a two-day customer service training course won’t deliver instant improvement to a front desk assistant’s customer service skills, but will allow employees to gain a broader understanding of the skills concept and stimulate their thoughts on how to perform their jobs better. The
skills will then develop through continuous on-the-job training, day-to-day practical experience and learning from managers or colleagues. There is also evidence to suggest no matter whether generic skills can be trained, they might be the outcome of personality or additional social conditioning (Grugulis et al. 2004; Lloyd & Payne 2008).

The empirical evidence from this research support enterprises’ planning/redesign in training, training budget allocation, internal learning and knowledge management processes. While larger enterprises have great internal capacity for organisational and workforce development, small enterprises may have budget constraints which limit their support for training and development on generic skills and engage skills utilisation. Literature shows that employees in smaller enterprises are more likely to miss out on skills development and training opportunities (Skills Australia 2010; NCVER 2009), which in turn contributes in decreases employee engagement. While the Australian governments promised to use public funding to leverage workforce development (e.g. skills utilisations and employee engagement) for small business (Skills Australia 2010), the findings of this research provide insights into top performing companies’ success such as essential generic skills and key performance/engagement drivers which allow smaller organisations to replicate, and to consider planning their own training and development initiatives (e.g. workshops run by internal staffs) to support business growth.

Based on the findings of this research, organisations should now treat interpersonal skills and cognitive skills as the critical skills components in their recruitment and selection processes, and also in developing their employee attraction and retention strategy to strengthen the organisation’s human capital. In addition, management should develop a performance system to measure/monitor the generic skills competence of employees and provide development opportunities when necessary.

Organisations need also consider facilitating a ‘learning organisation’ environment. The concept can benefit staff learning and development of generic skills, as noted by O’Keeffe (2002). The benefit of team or shared learning is that staff can learn and grow more quickly and the problem solving capacity of the organisation is improved through better access to knowledge and expertise. Team learning requires individuals to engage in dialogue and
discussion; therefore team members must develop excellent communication, shared meaning, and shared understanding.

Another managerial implication of this study is that having excellent generic skills in the organisation is not enough to ensure business success. It is important to re-state that skills are only one element of business success and that there are also other factors that correlate with organisational performance (Gambin et al. 2009; Tamkin 2005; Moy 1999; Field & Mawer 1996). This thesis argues that the effects of generic skills on organisational performance can be devastating if employees are disengaged, withhold their skills and defend themselves physically, cognitively, or emotionally during the performances of their roles (Kahn 1990). Skills utilisation is most likely where employees have the ability, motivation and opportunity to deploy their skills effectively (Warhurst & Findlay 2012). In order words, employee satisfaction levels and engagement increases when enterprises make better use of their employees’ skills. This in turn contributes to increased productivity and higher retention rates (Skills Australia 2010, p.7).

The results from this study suggest that employee engagement can significantly affect market performance. Consistent with the literature (Sections 2.4.3 & 2.6.3) and make explicit in this study (Section 4.6.4), employee engagement has a strong and direct impact on an organisation’s performance. The present study also proved that employee engagement levels in top performing organisations are generally high and the employees feel involved and valued by their organisations. Descriptive statistics in Table 4.2j suggest that employees in top performing organisations are involved in decision-making, and feel able to voice their ideas. Managers listen to their views, and value employees’ contributions; they have opportunities to develop their jobs and their organisations are concerned for their health and wellbeing. This implies that a focus on increasing individuals’ perceptions of their involvement with, and value to, the organisation will pay dividends in increased engagement levels (IES 2003).

Remarkably, another significant finding of this research is that employee engagement can intensify the effects of generic skills on market performance. In order words, the discretionary effort that engaged employees bring to their work enhances the strength of the
relationship between generic skills and organisational performance. The moderating effects are supported by the results presented in Section 4.6.

One of the key implications from this research is that management should make every effort to enhance employee engagement. For example, enterprises can consider developing/reinventing a range of human resource practices to enhance the effects of employee engagement and generic skills to achieve higher organisational performance. Empirical tests on traditional HR practices such as promotion, reward and remuneration have implications for employee engagement (Grover & Crooker 1995; Cohen & Gattiker 1994; Schwarzwald et al. 1992). These empirical tests also indicate that employee engagement levels will be higher when employees are rewarded via promotion or monetary benefits. On the other hand, as supported by the descriptive statistics in Section 4.42, this thesis suggests that employee engagement is centred on employees' beliefs about the organisation, its leaders, working conditions (Konrad 2006); a relationship of trust, loyal and mutual commitment with the organisation (Cropanzano & Mitchell 2005); and a concept of feeling valued and involved (Tamkin 2005; IES 2003).

While traditional HR practices are important, enterprises can consider creating programmes to facilitate quality relationships between managers and employees; to promote organisational justice and trust; and to improve the quality of working relationships with colleagues. Several studies have concluded that employees who have good relationships with their immediate managers are more engaged and have a greater commitment toward their organisations (Green et al. 1996; Nystrom 1990; Settoon et al. 1996). The literature also suggests that promoting organisational justice and trust can foster greater employee engagement levels (Kramer 1999), as emotional attachment to colleagues is another important aspect to employee engagement (Baumeister & Leary 1995).

Lastly, it could be concluded that the results from this research provide invaluable insights to enterprises, industries and human resource practitioners, to support their human resource planning and business growth strategies. This study has also opened up an area of opportunity for further research into generic skills and managerial practices.
5.5.2 Implications for Government

With a low unemployment rate and strong GDP (Gross Domestic Product) growth, the Australian economy is performing strongly and is currently one of the fastest growing economies in the OECD. The future of Australia looks positive but its future economic fortunes depend in part on its access to, and utilisation of skills that will help its industries to become world class (Allen Consulting Group 2006). To continue its sustainable growth in the global and knowledge driven economy, there is a need for government to commit to a new national approach to workforce development that maximises people’s capabilities, lifts productivity and increases workforce participation (Skills Australia 2010).

While the Australian economy continues to grow, industries and business enterprises are expected to acquire more skills in order to remain flexible and competitive in a world of exponential change. Australia is experiencing structural changes to its economy; that is, the make-up of the economy is changing. The Australian economy is evolving constantly, transforming from a manufacturing-based economy to a services-based economy (Austrade 2011). The shift from manufacturing to services is not confined to Australia. All modern economies are facing a similar pattern. In other words, traditional physical/technical skills are no longer sufficient for new the services-based and knowledge-intensive economy. The Allen Consulting Group (2006) reported that employers are having difficulties accessing a range of generic skills, such as communication, teamwork work, problem solving and learning skills. Therefore, there is a continual need to upgrade the generic skills/competencies of the workforce. This thesis suggests that further research in an area of how a person can develop their generic skills via family or education could provide support to the agenda of upgrading workforce’s generic skills.

As is made explicit in Section 4.6, the results from this research confirm the importance and influence of generic skills on the success of top performing organisations. As described in Sections 3.5.2 and 4.3, the surveyed companies of this research are the Australia’s largest companies, based on revenue, and they collectively account for about 65% of the economy. The top performing companies that participated in this study are operating in the finance and insurance industry, which is one of the largest contributors to the Australian economy, and generated more than 10% of Australia’s national output in 2011 (Austrade 2011; ABS
5206.0, 2012). With the finance and insurance industry having the potential to become Australia’s major industry and outperform mining and other traditional industries, as suggested by Austrade (2011), the government can consider taking steps towards developing an industry growth agenda to sustain its performance and enable Australia to become one of the leading financial hubs in Asia-Pacific, outperforming Japan and China.

From a national perspective, government could consider using their influence to encourage workforce development in enterprises of all sizes, with a focus on small enterprises. For example, government could provide assistance to access training and development opportunities; offer a range of business improvement support programmes; provide training materials online; or subsidise company expenses on generic skills training. Government should be also aware that structural changes to the economy will further accelerate the demand for the essential generic skills identified by this research, since all enterprises are striving to be high performing. As a result, there will be a heavy demand both short-term and long-term for the national workforce development in generic skills.

As asserted in Sections 5.3.1, 5.3.2 and 5.3.3, the results of this study indicate that, teamwork skills; learning skills; planning and organising skills; self-management; and initiative and enterprise skills are important but not necessarily contribute directly to business success. The findings offer potential avenues for further academic research in those skills areas, as it is clear that they underpin capability and performance. In particular, as mentioned in Section 1.1, Australia leads the way in terms of the breadth and depth of research and initiatives to address generic skills needs, and Australia has developed two major general skills schemes (the Mayer Key Competencies and the Employability Skills Framework) to establish a set of generic skills essential to education, training, employment and the workplace (Curtis 2010). However, most of the existing academic research in generic skills was solely focusing on education and employment (Moy 1999), rather than business and management context.

While some of the previous surveys commissioned by the government (Allen Group Consulting 2000 & 2006; ACCI & BCA 2002) have addressed the generic skills needs of Australian enterprises, the results did not provide clear information in areas such as ‘how will these generic skills impact Australian enterprises’ performance?’ to support business improvement. As a result, continual skills gaps problems cannot be solved at the firm level,
and ultimately this will affect national productivity. Therefore, further research similar to the one presented should be considered across the board industries in Australia.

5.5.3 Implications for Academic Field

Scholars have often argued about whether a link between skills and performance should or does exist (Stoyanova & Grugulis 2010), especially generic skills. The existing empirical evidence on the relationship between skills and organisational performance is rather limited and inconsistent (Lloyd & Payne 2004). In many studies, skills are often investigated as a broader concept, a single dimension without any specification of different skills categories (e.g. technical skills and generic skills), and skill levels are often measured by the qualifications achieved, educational attainments and levels of investment in training. This study offers a different approach to examine the relationship between generic skills and organisational performance. As mentioned in the research methodology chapter, this study adopted a rating-by-managers approach to measure employees’ competencies/utilisation of generic skills, and to evaluate whether these generic skills have contributed to business performance. A mixed approach of objective and subjective methods was also used to measure organisational performance. An implication of this research is that the significant positive relationships identified in this study between specific generic skills and organisational performance can be further explored, for other generic skills types. The academic field is still in the early stages of adequately understanding this relationship, and further research is needed. This thesis argues that although studying the relationship between generic skills and organisational performance is difficult, it is not impossible as different proxies need to be used to capture the relationship (Stoyanova & Grugulis 2010, p.516).

Empirical research into the relationship between employee engagement and organisational performance in Australia is very limited, and most of the written literature comes from practitioner literature and consulting firms (AIM 2012, Australian Industry Group and Deloitte 2008, and Allen Consulting Group 2006). This study examined employee engagement as a moderating variable and proved that employee engagement has a direct impact on organisational performance, and that employee engagement can also enhance the strength of the relationship between generic skills and organisational performance. The moderate and direct effects of employment engagement identified in this study show that
more research in this area will be required in order to support human resource and management practices.

Generic skills continue to be an important discipline in training and education research. The findings of this study provide new directions for researching the contributions of generic skills to organisational performance. As the Australian economy continues to grow, similar research will be needed to investigate the impacts of a broader range of generic skills on various performance indicators.

**5.5.4 Final Implications**

The researcher does not suggest that the findings presented in this thesis can be generalised to apply to all organisations in all Australian industries. Rather, this thesis suggests that this project is an important step forward in generating knowledge about the interactions between generic skills, employee engagement and organisational performance of Australian workplaces and, to advance the discussion and strategies about the many ways in which senior executives, managers, and others can intervene individually and collectively to lift organisational performance.

This study suggests that more can be done to improve skills development/acquisitions, the management of organisations’ intangible assets and the prosperity of the Australian economy. Both government and enterprises have an important role to play as facilitators in lifting organisational performance.

**5.6 Contributions of the Research**

The previous sections discussed the conclusions and implications of this research. The research findings reveal that this study has addressed the research problem and will make contributions in a number of areas.
In summary, the research contributions are described below:

First, this research contributes to the general body of knowledge concerning generic skills. This study is probably the first empirical attempt to examine the direct relationship between generic skills and organisational performance in Australia. It empirically tested the effects of generic skills on market performance and financial performance, and the moderating effects of employee engagement on the generic skills and organisational performance relationship. This study provides a base from which further research can be developed and puts generic skills knowledge into a different context, rather than the traditional focus on education, training and employment.

Second, since the case studies research of Field and Mawer (1996), this research is one of the most comprehensive and detailed academic studies into generic skills and organisational performance undertaken with top performance organisations in Australia. Nearly 50% of the top performing companies in the finance and insurance industry have participated in this study. It is also one of a few studies attempt to collect financial performance information to examine the influences of generic skills on financial performance. Furthermore, the study is cross-disciplinary and brings together areas that traditionally are not connected within a research into generic skills in Australia such as employee engagement; market performance such as, customer satisfaction; innovation development; products and services quality; and financial performance.

Third, this study is also the first attempt to establish an empirical relationship between the generic skills in the current Employability Skills Framework and organisational performance. The findings of this research will allow policy makers to adjust the current framework or provide ideas for the development of a new framework. The study tested many skills elements/competencies in different types of generic skills in order to generate a better understanding of how organisational performance is being influenced by generic skills. The existing literature does not distinguish, specify or separate generic skills from the total concept of ‘skills’ and these studies do not employ robust measures of skills and performance, because of the failure to deal with sub-categories of skills (Grugulis & Stoyanova 2010). There also seems to have been no improvement of the concepts over the years, as scholars often use investment in training; educational attainment and qualifications
levels as proxies when they attempt to measure the impact of skills on performance. As a result, the measuring techniques developed and tested in this study contribute to advances in research methodology in this research context, particularly in measuring generic skills and organisational performance, which provide further improvement opportunities for other researchers.

Fourth, this study contributes to business and human resource practices. First, the findings on the impacts of generic skills on organisational performance provide rigorous empirical data on practices that solve organisational problems and support a range of business strategies. This research was based on the assumption that employee engagement can make a difference in skills utilisation and that it intensifies the effects of generic skills on organisational performance. Arguably, this is not a brand new concept and the idea of interaction makes sense conceptually but there has been no similar empirical research conducted to examine employee engagement as a moderating variable in the same context. As a result, the findings of this study contribute to human capital research as an innovative research area, and can also contribute to organisations’ planning on skills development, business strategies, talent attraction and retention, and a wide range of HR practices.

Finally, this study provides a model that can be used as a framework for business growth. As mentioned in Section 5.5.1, smaller enterprises can replicate top performing companies’ success by adopting similar practices, acquiring/developing a stock of excellent generic skills and most importantly, having highly engaged employees who are willing to do whatever they can for the benefit of their internal and external customers and for the success of the organisation as a whole. Moreover, the model offers an alternative understanding of the dynamics of employee engagement in relation to skills and organisational performance.

5.7 Limitations of the Research

There are limitations to this study and they need to be addressed in order for the results to be appropriately interpreted. The specific limitations of this study are as follows:
1. The present study was based on online survey research, and some respondents who were invited to participate in the survey did not wish to do so or did not have time. As a result, the data only reflects the views of those who were willing to share the information on their companies’ capabilities in terms of generic skills, employment engagement level and business performance. In addition, no interviews were carried out due to the limitation of time and the preference of survey participants. Some additional interviews would have given richer data for analysis and conclusions.

2. Self-reporting bias often occurs in survey research, when participants misreport their perceptions/true information in order to make their organisations/themselves look better, even if the study does not identify them by name (Lim 2007). The online questionnaire of this study was an anonymous survey, in which participants were only asked to provide information related to the topic of the research. The demographic information collected from the survey was not sufficient to identify them and their companies. No participants were asked to provide their names and company names, and they were repeatedly assured by the researcher that confidentiality and anonymity would be maintained during the survey recruitment and follow-up processes. This was intentionally done to reduce the problem of self-reporting bias and to ensure the accuracy of information collected. In addition, a pilot test on the survey questionnaire was carried out in order to test the potential extent of reporting bias. As a result, the impact of this limitation on the survey results should be minimal.

3. The analyses and results presented in this thesis derive from the information provided by 104 top performing enterprises in the finance and insurance industry. While the results drawn from the study will be of interest and have some relevance to other top performing enterprises in other industries, it must be noted that the research findings do relate to one specific industry. This thesis argues that the research results may reflect the situation in all top performing industries and companies, in terms of the essential generic skills for their business success. However, the researcher does not suggest the findings represented in this thesis can be generalised to apply to all organisations in Australia. As explained in Section 1.6, the researcher chose an industry with high growth potential as the research domain, rather than the traditional industries. The findings will offer potential areas of further research into different industries and allow researchers to improve their research methodologies.
4. This research was undertaken from 2011–2012 in a particular political and economic climate which was affected by global economic uncertainties, the European financial crisis and the Australian economic slowdown. These circumstances change over time and therefore, if replicated this research may yield different results. In particular, this study measures organisational performance and this will be impacted by a range of economic and political forces.

5. Another potential limitation arises due to the misunderstanding or confusion about the term ‘employee engagement’. Although top performing enterprises would have a system in place to measure employee engagement levels, respondents might be confused employee engagement with other HR terms such as ‘job satisfaction’, ‘organisation commitment’ or ‘organisational citizenship behaviour’. There were no significant issues raised by the respondents during the pilot test, and no changes were made to the questionnaire as it was believed that potential respondents will be familiar with all the terms such as ‘generic skills’, ‘employee engagement’ and ‘organisational performance’.

6. This research focuses entirely on generic skills and has ignored other factors that influence organisation performance. In order to measure the generic skills’ direct influence to organisational performance, it has excluded key issues such as how an organisation is structured, its culture, its strategic intent and its leaderships. Moreover, from an individual level, how a person’s generic skills is first acquired from birth to adulthood via his/her family, cultural background, education and the person’s socio-environment are not included or discussed in this thesis. Hence, this quantitative research is limited to the criteria as set out in Chapter Two and excluded other contributing factors.

The limitations of this research are acknowledged and the researcher asserts that they do not detract the value of the study’s results. The limitations indicate areas of opportunity and improvement needed in future studies.
5.8 Suggestions for Further Research

This research is to the best knowledge of the researcher the first empirical attempt to examine the direct relationship between generic skills and organisational performance in Australia. Therefore, further work in this research context would be valuable. Several areas for future research are discussed below:

Future research area 1: Further research in a broader research domain

As previously noted, other top performing companies in different industries would also benefit from the findings of this research and the application of the combined approach used in this study to assess the influence of generic skills on organisational performance and the moderating effects of employee engagement. The results of this research might be somewhat industry-specific and there is a need to broaden the research domain for future studies. For example, future research could include other major industries such as professional, scientific and technical services; and health care and social services, or researchers could broaden their research area by including all industries in Australia and exploring the types of generic skills needed by different industries. Future research could also include all company types, rather than focusing on the ‘top performing’, ‘medium-large’, ‘SME- small-medium sized enterprises’ or ‘fastest growing’ categories, in order to generate a more comprehensive view and more general insights to compare the impacts of generic skills and employee engagement on performance across a range of sectors.

Future research area 2: Further testing of additional generic skills and other contributing factors

This study chose to test the majority of generic skills listed in the current Employability Skills Framework as a starting point. Future research could re-examine the impacts of those skills which this study did not find to be positively related to organisational performance. These skills include: teamwork skills; learning skills; planning and organising skills; self-management skills; and initiative and enterprise skills. The results of this study are unexpected and deserve future research attention. For example, interviews could be conducted to explore the extent to which these findings hold for other potential participants.
(e.g. those who were unable to participate in the online survey). The use of a larger sample frame/size could also have a positive impact on survey results.

Future studies could investigate a wider range of generic skills including leadership, judging/decision making and emotional intelligence in order to generate a better understanding of other generic skills outside the current Employability Skills Framework. Future research could also explore their causal relationships on different performance indicators (e.g. labour productivity; employee turnover). Different moderating variables could also be tested in future research, as there are many other factors that can influence the utilisation of skills and their effects on performance. For example, loyalty to the organisation—Are their employees prepared to die for their organisation? If the leadership and culture are strong then the employees would see any job as a challenge and will benefit the bottom line.

As noted in Section 5.7, this research focuses entirely on generic skills, it has ignored other factors that influence organisation performance and is limited to the criteria as set out in Chapter Two. This thesis asserts that further research on other contributing factors such as how an organisation is structured, its culture, its strategic intent and its leaderships; and how a person’s generic skills is first acquired from birth to adulthood via his/her family, cultural background, education and the person’s socio-environment would be of merit to contribute to HR/management practices and the extended knowledge of generic skills, their formation, development and impact on organisational performance.

Researchers should also expect that the relationship between generic skills and organisational performance, along with the other contributing factors such as employee engagement, may continue to change due to the changing structure of the economy and the knowledge-based environment. Thus, a wider range of essential generic skills and related human capital issues would need to be identified in order to keep pace with the fast changing business world.

**Future research area 3: Further testing and refinement of the organisational performance measurement instrument**

Although this study has established initial evidence of a reliable and valid instrument for assessing organisational performance as discussed in Chapters Three and Four, the current
instrument could benefit from further testing and refinement. It is currently not known how well the instrument will have a more generalised application beyond the specific industry of this study. For example, some industries do not involve dealing with customers and developing new products or services. Therefore, the current instrument for measuring market performance cannot apply to these industries. As for financial performance measures, some industries/companies, such as the government and not-for-profits sectors, may not be involved in selling or investing, and so they would not have financial information available for returns on investment or sales growth. Thus, future research would need to refine the organisational performance measurement instrument to suit different industries.

**Future Research Area 4: Alternate operationalisation of generic skills and organisational performance**

In the current study, an approach based on evaluation by managers was used to measure generic skills, and this provides opportunities for the improvement of further research. Compared to the existing literature, this study discovered the contributions that generic skills make to organisational performance by examining the utilisations/effects of generic skills instead of using the common proxies such as training cost, education and qualification levels to measure skills. This opened up a new development area in generic skills measurement for researchers. Future research could utilise other observation approaches to measure the effects/utilisations of generic skills. This research adopted a mixed approach by utilising objective and subjective methods to measure organisational performance. The findings from the research also offer an opportunity for future research, as researchers could develop a more sophisticated method to capture financial and non-financial information in future studies. For example, future research could use cross-reference checks with secondary sourced financial data (e.g. annual reports; market intelligence reports) against survey responses, but this requires a more innovative research design if the nature of the survey is anonymous. Future research may benefit from a research design that employs triangulation of responses to assess the accuracy of the subjective data and to increase confidence in study results.
5.9 Conclusion

Chapter Five has provided conclusions about the hypotheses; conclusions about the research problem; and implications for enterprises, government and academic research field. Chapter Five has also discussed the contribution of the research, limitations of the research and the suggestions for further research. In summary, it was found that generic skills have a positive influence on a range of organisational performance measures, including customer satisfaction; innovation development; and products and services quality. This shows that generic skills are one of several factors contributing organisations’ success. Generic skills were also found to have a positive influence on financial performance measures (sales growth; return on investment) but the influence was indirect and is articulated or mediated through market performance (customer satisfaction; innovation development; products and services quality). The moderating effects of employee engagement on the relationship between generic skills and market performance were also found to be positive, showing that the effects of generic skills on organisational performance are stronger when employees are highly engaged. However, the moderating effects of employee engagement on the relationship between generic skills and financial performance were not found in present study. Finally, the evidence from this innovative research has proved that skills utilisation and effects are truly dependent in part on the motivation and engagement of employees.
Appendix 1- Information Sheet and Survey Invitation

Date- Month- 2012
Title, Surname
(By mail or via email)
Organisation
Address 1
Address 2
Post Code

Dear Mr/Miss/Mrs Surname,

My name is Florence Lau. I am a researcher enrolled in the Doctor of Business Administration program at Southern Cross University. As part of the course requirements of the doctoral degree, I am conducting a research in examining the influence of generic skills and employee engagement on organisational performance.

My reason for writing to you is to invite you to participate in this research. I have designed a questionnaire, which I would like to be completed by senior managers or executives in the Australian finance and insurance industry. Currently, competition within the domestic finance and insurance market is fierce amongst institutions. As a result, the findings of this research will make a significant contribution to the industry in terms of skills development and strategic planning on training and human resource practices. As the industry is dynamic, highly service orientated and innovative; I believe that it would be of merit to explore the importance and impact of generic skills on organisational performance in the industry. Also, to examine whether employee engagement would influence the strength of generic skills on organisational performance will also make a contribution to talent attraction and retention.
I am currently collecting data through a web-based survey to test my observations within a 2 month period (between 16\textsuperscript{th} April 2012 and 11\textsuperscript{th} June 2012). Your support and participation in the survey will determine the success of this research. The survey questionnaire asks you to answer a series of questions about the significance of generic skills in your organisation; the employee engagement level in your organisation and information about your organisation’s performance. The survey will take you approximately 15 to 20 minutes to complete online, please click the following URL to complete the online survey question:


The ethical aspects of this study have been approved by the Southern Cross University Human Research Ethics Committee (HREC). The approval number is ECN-12-064. However, participation in this research is strictly voluntary and your confidentiality is assured. I will ensure and guarantee that none of the participants (including company names) will be identified and all the responses will be treated as confidential. No individual responses will be presented in the doctoral thesis, as only aggregated data will be used. All data and information collected from the survey will be stored appropriately and in accordance with the Privacy Act 1988. All information gathered for this research will be kept confidentially for a retention period of 7 years at the University. Only my supervisor and I will have access to your survey responses for data analysis purposes.

My research is being conducted under the supervision of Professor Suresh (Serge) Mukhi and he can be contacted by mobile phone number 0418 400 582, if you have any questions regarding this research. Furthermore, a copy of the research findings can be provided to you if you wish. If you require a copy, please provide your email address in Q15 of the survey. Alternatively, you can email me at w.lau.24@student.scu.edu.au to request a copy.

Thank you very much for consideration of my request. If you would like further details of this research, please contact me on 0414 688 077 or email me at w.lau.24@student.scu.edu.au. If you have any concerns about the ethical conduct of this research or the researcher, please contact the Ethics Complaint Officer using the details below. All information is confidential and your request will be handled as soon as possible.
Write to the following:
The Ethics Complaints Officer
Southern Cross University
PO Box 157
Lismore NSW 2480
Email: ethics.lismore@scu.edu.au

Yours sincerely,

Wai Yin Florence, Lau
Doctoral Candidate
Southern Cross University
Appendix 2- Phone Script for Requesting Participants’ Email Addresses

Good [morning / afternoon], my name is [researcher/assistant name] and I am calling from the Southern Cross University. Could I please speak to [INSERT NAME FROM SAMPLE LIST]?

IF NECESSARY REPEAT INTRODUCTION.

- If the principle researcher is making the calls-

I am a researcher enrolled in the Doctor of Business Administration program at the Southern Cross University. As part of the course requirements of the doctoral degree, I am conducting a research to examine the influence of generic skills and employee engagement on organisational performance. May I explain to you the reason for contacting you today?

- If the assistants are making the calls-

I am calling on behalf of Miss Florence Lau, she is a researcher enrolled in the Doctor of Business Administration program at the Southern Cross University. As part of the course requirements of the doctoral degree, she is conducting a research to examine the influence of generic skills and employee engagement on organisational performance. May I explain to you the reason for contacting you today?

IF THE POTENTIAL PARTICIPANT INDICATE THEIR INTEREST/ANSWER ‘YES’

BOTH RESEARCHER AND ASSISTANTS: The reason for calling you today is to introduce you a research project which might benefit you and your organisation. The researcher has/I have designed a questionnaire which she/I would like to administer to some senior managers or executives in the Australian finance and insurance industry. The purpose of this research is to investigate the impact of generic skills on organisational performance; and examine whether employee engagement plays an important role to reinforce and accelerate the generic skills effects on organisational performance. The research findings would allow organisations to generate greater understanding of the critical issues which underpin skill strategies and HR practices to sustain stronger organisational performance and competitive advantages. Since you are a senior executive for a leading finance and insurance organisation, I would like to send you an email to invite you to participate in this research via online survey. Would you be interested in receiving email invitation?

IF YES, ASK FOR EMAIL ADDRESS.

What is your email address? (Researcher and assistant enter email addresses into an excel file)
BOTH RESEARCHER AND ASSISTANTS MUST ALSO ADDRESS THE FOLLOWING (Confidentiality Issues):

I’d also like to assure that your personal details such as name and contact phone number will not be circulated to any person other than the researcher. Participation in this research is strictly voluntary and your confidentiality is assured. Naturally, the confidentiality and anonymity of you and your company will also be respected and protected. I will ensure and guarantee that none of the participants (including company names) will be identified and all the responses will be treated as confidential. Also, no individual responses, only aggregated data, will be presented in the doctoral thesis. All data and information collected from the survey will be stored appropriately and in accordance with the Privacy Act 1988. In addition, all information gathered for this research will be kept confidentially for a retention period of 7 years at the University. Only my/the researcher’s supervisor and I/the researcher will have access to your survey responses for data analysis purposes.

Thanks very much for your assistance today and we’ll send you an email invitation shortly.

IF THE POTENTIAL PARTICIPANT INDICATE NO INTEREST/ DO NOT WISH TO BE INTERVIEWED

Thank you very much for taking my call today, I understand that you are not interested in this research. Before ending this call, I’d like to mention to you that your confidentiality and privacy are assured. Your personal details such as name and contact phone number will not be circulated to any person other than the researcher. In addition, all information gathered for this research will be kept confidentially for a retention period of 7 years at the University in accordance with the Privacy Act 1988.

Have a great day, goodbye.
Appendix 3- Online Survey Questionnaire

General Instructions

This questionnaire is part of a project which aims to investigate the influence of generic skills and employee engagement on organisational performance. This survey is anonymous and none of the information requested in this survey is sufficiently detailed to identify you or your firm. It will only be used in statistical analysis.

This questionnaire has **FOUR SECTIONS**.

**Section ONE** asks questions about the significance of different types of generic skills on your organisational performance.

**Section TWO** asks questions about the employment engagement level in your organisation.

**Section THREE** asks questions about your organisation’s performance including financial and non-financial information.

**Section FOUR** asks questions about you and your organisation.

This questionnaire has been designed in a manner that participants can quickly and easily complete the survey. It would take you approximately 20 to 25 minutes of your time. All participants are voluntary; however, your support would contribute to the success of this research. The researcher looks forward to draw inspiration and insights from your contributions.
Section ONE: Generic Skills in your Organisation

For the following questions, please use the response scale for answering and indicate your answer

1. To what extent do the following elements of your employees’ interpersonal skills contribute to your organisation’s success/influence the performance of your organisation?

Note: The Interpersonal skills category includes communication skills (items 1-5), teamwork skills (items 6-11) and customer service skills (items 12-16).

<table>
<thead>
<tr>
<th>Communication Skills</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Neutral</th>
<th>Slightly</th>
<th>Significant</th>
<th>Very Significant</th>
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</thead>
<tbody>
<tr>
<td>1. Listening and understanding effectively</td>
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<tr>
<td>2. Speaking clearly and directly in any situations, effectively communicate verbally and non-verbally</td>
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<td>3. Negotiating responsively and ability to influence</td>
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<tr>
<td>4. Writing to the needs of the audience (e.g. Customers and internal stakeholders) and using numeracy effectively</td>
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<td>5. Have strong ability to exchange opinions/information effectively</td>
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<tr>
<th>Teamwork Skills</th>
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<tr>
<td>6. Working with people of different ages, gender, race, religion or political persuasion</td>
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<td>7. Working as an individual and as a member of a team</td>
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<tr>
<td>8. Knowing how to define a role as part of a team</td>
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<tr>
<td>9. Applying teamwork skills to a range of situations, e.g. futures</td>
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<tr>
<td>Planning, crisis problem solving</td>
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<tr>
<td><strong>10.</strong> Identifying the strengths of team members</td>
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<tr>
<td><strong>11.</strong> Coaching, mentoring and giving feedback</td>
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</tbody>
</table>

**Customer Service Skills**

| 12. Understanding the needs of internal and external customers |  |  |  |  |  |  |
| 13. Listening effectively and process accurate information, be patient and provide quick response to customers |  |  |  |  |  |  |
| 14. Build and maintain strong and long-term relationships with customers |  |  |  |  |  |  |
| 15. Ability to solve problems and provide right solutions to suit different customers |  |  |  |  |  |  |
| 16. Have excellent knowledge of company’s products/services; and outstanding business etiquette and phone manner |  |  |  |  |  |  |

2. To what extent do the following elements of your employees’ **Cognitive skills** contribute to your organisation’s success/influence the performance of your organisation?

Note: The cognitive skills category includes problem solving skills (items 1-4) and learning skills (items 5-11)

<table>
<thead>
<tr>
<th>Problem Solving Skills</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Neutral</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Very</th>
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</thead>
<tbody>
<tr>
<td>1. Developing creative, innovative and practical solutions</td>
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<td>2. Showing independence and initiative in identifying problems and solving them</td>
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<tr>
<td>3. Solving problems in teams</td>
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</tbody>
</table>
4. Applying problem-solving strategies across a range of areas

Learning Skills

5. Applying learning to ‘technical’ issues (e.g. learning about products and ‘people’ issues (e.g. Interpersonal and cultural aspects of work)

6. Having enthusiasm for ongoing learning

7. Being willing to learn in any setting – on and off the job; and being prepared to invest time and effort in learning new skills

8. Being open to new ideas and techniques

9. Acknowledging the need to learn in order to accommodate change

10. Contributing to the learning community at the workplace

3. To what extent do the following elements of your employees’ Planning and organising skills contribute to your organisation’s success/influence the performance of your organisation?

<table>
<thead>
<tr>
<th>Planning and Organising Skills</th>
<th>1: Insignificant</th>
<th>2: Insignificant</th>
<th>3: Insignificant</th>
<th>Neutral</th>
<th>Slightly Significant</th>
<th>Significant</th>
<th>Very Significant</th>
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</thead>
<tbody>
<tr>
<td>1. Managing time and priorities – setting timelines, coordinating tasks for self and with others</td>
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<tr>
<td>2. Adapting resource allocations to cope with contingencies and solving them-verbally</td>
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<tr>
<td>3. Establishing clear project goals and deliverables of areas</td>
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<tr>
<td>4. Planning the use of resources including time management</td>
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<tr>
<td>5. Participating in continuous improvement and planning processes</td>
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</tbody>
</table>
4. To what extent do the following elements of your employees’ **self-management skills** contribute to your organisation’s success/influence the performance of your organisation?

<table>
<thead>
<tr>
<th>Self-management Skills</th>
<th>1</th>
<th>2</th>
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<th>4</th>
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<th>6</th>
<th>7</th>
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</thead>
<tbody>
<tr>
<td>1. Having a personal vision and goals</td>
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<tr>
<td>2. Evaluating and monitoring own performance</td>
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<td>3. Having knowledge and confidence in own ideas and vision</td>
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<tr>
<td>4. Articulating own ideas and vision</td>
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<tr>
<td>5. Taking responsibility</td>
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</tbody>
</table>

5. To what extent do the following elements of your employees’ **Initiative and enterprise skills** contribute to your organisation’s success/influence the performance of your organisation?

<table>
<thead>
<tr>
<th>Initiative and Enterprise Skills</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adapting to new situations (e.g. New merger, acquisitions)</td>
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<tr>
<td>2. Developing a strategic, creative, long-term vision</td>
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<tr>
<td>3. Being creative and innovative</td>
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<tr>
<td>4. Identifying opportunities not obvious to others</td>
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<tr>
<td>5. Generating a range of options</td>
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<td>6. Translating ideas into action</td>
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</table>
Section TWO: Employee Engagement Level in your Organisation

For the following question, please use the response scale for answering and indicate your answer.

6. In the view of the employee engagement level in your organisation, to what extent do you agree with the following statements?

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>1</th>
<th>Disagree</th>
<th>2</th>
<th>Tend to disagree</th>
<th>3</th>
<th>Either agree or disagree</th>
<th>4</th>
<th>Tend to agree</th>
<th>5</th>
<th>Agree</th>
<th>6</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>In general, to my knowledge, the employee engagement level in my organisation is <strong>high</strong></td>
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<td>2.</td>
<td>People in this organisation are highly involved and valued</td>
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<td>3.</td>
<td>People in this organisation always put in a great deal of effort and accept any types of assignments</td>
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<td>4.</td>
<td>People in this organisation know what is expected from them</td>
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<td>5.</td>
<td>People in this organisation understand that they have opportunities at work to learn and grow</td>
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<tr>
<td>6.</td>
<td>People in this organisation receive recognition and encouragement for doing good work</td>
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<tr>
<td>7.</td>
<td>People in this organisation know that their managers, colleagues and the senior management team care about them and willing to offer them support</td>
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<tr>
<td>8.</td>
<td>People in this organisation know that their opinions are always count and they frequently make suggestions to improve the products/services our organisation offer</td>
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</table>
Section THREE: Performance of your organisation

7. What is your organisation’s sales growth (%) in current financial year? (SINGLE RESPONSE)
   - <10%
   - 10% to 20%
   - 21% to 30%
   - 31% to 40%
   - 41% to 50%
   - 51% to 60%
   - 61% to 70%
   - 71% to 80%
   - 81% to 90%
   - 91% to 100%
   - >100%

8. What is your organisation’s Return on Investment (%) in current financial year? (SINGLE RESPONSE)
   - <10%
   - 10% to 20%
   - 21% to 30%
   - 31% to 40%
   - 41% to 50%
   - 51% to 60%
   - 61% to 70%
   - 71% to 80%
   - 81% to 90%
   - 91% to 100%
   - >100%
9. Please indicate your organisation’s overall performance in the following areas (PLEASE INDICATE YOUR ANSWERS IN THE FOLLOWING SCALE)

<table>
<thead>
<tr>
<th></th>
<th>Far below average</th>
<th>Below average</th>
<th>Slightly below average</th>
<th>Average</th>
<th>Slightly above average</th>
<th>Above average</th>
<th>More than above average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Customer Satisfaction</td>
<td></td>
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<tr>
<td>2. Products/Services Quality</td>
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<td>3. Innovation Development (new products/services)</td>
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</table>

Section FOUR: About you and your organisation

10. How long have you been with this company? (SINGLE RESPONSE)

   a) Less than 1 year
   b) 1 to <5 years
   c) 5 to <10 years
   d) 10 to <15 years
   e) 15 to <20 years
   f) 20 or more years

11. Which of the following best describes the position you hold in your organisation? (SINGLE RESPONSE)

   a) Chief Executive Officer/ Managing Director
   b) Senior Executive
   c) General Manager
   d) Senior Manager
   e) Other, please specify__________

12. What is your highest educational level achieved? (SINGLE RESPONSE)

   a) Year 12
   b) Certificate/Diploma
   c) Bachelor Degree
   d) Master Degree
   e) Doctoral Degree
   f) Other, please specify________________
13. Which of the following finance and insurance sector do you work in? (SINGLE RESPONSE)
   a) Authorised Deposit-taking Institutions (ADIs)
   b) Non-ADI Financial Institutions
   c) Insurers and Fund Managers
   d) Other, please specify____________________

14. Approximately, how many employees does this organisation have? (SINGLE RESPONSE)
   a) Below 100
   b) 101-400
   c) 401-700
   d) 701-1000
   e) 1001-1400
   f) 1401-1700
   g) 1701-2000
   h) Above 2000
   i) Above 5000
   j) Above 10,000
   k) Above 30,000

Thank you for participating in the survey, all participants are entitled to receive the results of this research in which they participated. If you would like to receive a copy of the research findings, please provide your email address.

15. What is your email address?
_______________________________________________________

   Please take a moment to double check that you have completed all the questions.

   Thank you for taking the time to complete the survey.
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